

ROUNDTABLE ON PRODUCTIVITY: ARE WE MAK- ING AS MUCH PROGRESS AS WE THINK WE ARE?

ROUNDTABLE BEFORE THE SUBCOMMITTEE ON TAX, FINANCE AND EXPORTS OF THE COMMITTEE ON SMALL BUSINESS HOUSE OF REPRESENTATIVES ONE HUNDRED EIGHTH CONGRESS SECOND SESSION

WASHINGTON, DC, FEBRUARY 4, 2004

Serial No. 108-F

Printed for the use of the Committee on Small Business



Available via the World Wide Web: <http://www.access.gpo.gov/congress/house>

U.S. GOVERNMENT PRINTING OFFICE

97-776 PDF

WASHINGTON : 2004

For sale by the Superintendent of Documents, U.S. Government Printing Office
Internet: bookstore.gpo.gov Phone: toll free (866) 512-1800; DC area (202) 512-1800
Fax: (202) 512-2250 Mail: Stop SSOP, Washington, DC 20402-0001

COMMITTEE ON SMALL BUSINESS

DONALD A. MANZULLO, Illinois, *Chairman*

ROSCOE BARTLETT, Maryland, <i>Vice Chairman</i>	NYDIA VELÁZQUEZ, New York
SUE KELLY, New York	JUANITA MILLENDER-McDONALD, California
STEVE CHABOT, Ohio	TOM UDALL, New Mexico
PATRICK J. TOOMEY, Pennsylvania	ENI FALEOMAVAEGA, American Samoa
JIM DEMINT, South Carolina	DONNA CHRISTENSEN, Virgin Islands
SAM GRAVES, Missouri	DANNY DAVIS, Illinois
EDWARD SCHROCK, Virginia	GRACE NAPOLITANO, California
TODD AKIN, Missouri	ANIBAL ACEVEDO-VILA, Puerto Rico
SHELLEY MOORE CAPITO, West Virginia	ED CASE, Hawaii
BILL SHUSTER, Pennsylvania	MADELEINE BORDALLO, Guam
MARILYN MUSGRAVE, Colorado	DENISE MAJETTE, Georgia
TRENT FRANKS, Arizona	JIM MARSHALL, Georgia
JIM GERLACH, Pennsylvania	MICHAEL MICHAUD, Maine
JEB BRADLEY, New Hampshire	LINDA SANCHEZ, California
BOB BEAUPREZ, Colorado	BRAD MILLER, North Carolina
CHRIS CHOCOLA, Indiana	[VACANCY]
STEVE KING, Iowa	[VACANCY]
THADDEUS McCOTTER, Michigan	

J. MATTHEW SZYMANSKI, *Chief of Staff*

PHIL ESKELAND, *Policy Director*

MICHAEL DAY, *Minority Staff Director*

SUBCOMMITTEE ON TAX, FINANCE AND EXPORTS

PATRICK J. TOOMEY, Pennsylvania	[RANKING MEMBER IS VACANT]
<i>Chairman</i>	JUANITA MILLENDER-McDONALD, CALIFORNIA
STEVE CHABOT, Ohio	ENI F. H. FALEOMAVAEGA, American Samoa
MARILYN N. MUSGRAVE, Colorado	DANNY K. DAVIS, Illinois
JIM GERLACH, Pennsylvania	DENISE L. MAJETTE, Georgia
BOB BEAUPREZ, Colorado	JIM MARSHALL, Georgia
TRENT FRANKS, Arizona	MICHAEL H. MICHAUD, Maine
JIM DEMINT, SOUTH CAROLINA	
CHRIS CHOCOLA, Indiana	

JOE HARTZ, *Professional Staff*

CONTENTS

PARTICIPANTS

	Page
Manser, Ms. Marilyn, Ph.D., Associate Commissioner, Office of Productivity and Technology, Bureau of Labor and Statistics	3
Cooper, Ms. Kathleen, Ph.D., Undersecretary for Economic Affairs, Department of Commerce	8
Price, Mr. Lee, Research Director, Economic Policy Institute	8
Tonelson, Mr. Alan, Research Fellow, U.S. Business and Industry Council	10
Lee, Ms. Thea, Assistant Director for International Economics, Public Policy Department, AFL-CIO	11
Yudken, Mr. Joel, Ph.D., Sectoral Economist and Technology Policy Analyst, Public Policy Department, AFL-CIO	13
Rosenblum, Mr. Larry, Chief, Division of Major Sector Productivity, Bureau of Labor and Statistics	14
Huether, Mr. David, Chief Economist, National Association of Manufacturers	15
Beach, Mr. William, Director, Center for Data Analysis, The Heritage Foundation	17
Marron, Mr. Donald, Ph.D., Executive Director & Chief Economist, Joint Economic Committee	18
Duesterberg, Mr. Thomas, Ph.D., President & CEO, Manufacturers Alliance	19
Kosters, Mr. Marvin, Ph.D., Director, Economic Policy Studies, American Enterprise Institute	21
Utgoff, Ms. Kathleen, Ph.D., Commissioner, Bureau of Labor and Statistics	21

ROUNDTABLE ON PRODUCTIVITY: ARE WE MAKING AS MUCH PROGRESS AS WE THINK WE ARE?

WEDNESDAY, FEBRUARY 4, 2004

HOUSE OF REPRESENTATIVES,
COMMITTEE ON SMALL BUSINESS
Washington, D.C.

The committee met, pursuant to call, at 2:09 p.m. in Room 2360, Rayburn House Office Building, Hon. Donald Manzullo [chairman of the committee] presiding.

Present: Representatives Manzullo, Kelly, Gerlach and Velazquez.

Chairman MANZULLO. First I would like to thank the participants for coming today to this round table, even though it is square. This is really a continuation of a long, formal discussion we had a couple of months ago.

This is a major issue that I am not sure many folks really understand, the issue of productivity. When the government releases its productivity numbers, we tend to have a very high level macro understanding of what the numbers are supposed to mean. We need the government to define and explain "productivity" and how it is calculated.

A common argument is that productivity increases are primarily due to improvements in technology and more efficient process. To a great extent that is true, and while we accept that principle, sources in the tooling industry indicate that only about one-quarter of the total productivity increases can be attributed to new machinery and faster processes. The more efficient processes is a code for offshoring of labor.

When I hear about an increase in productivity, I also hear about companies that are moving operations overseas, both manufacturing and white collar jobs associated thereto. There seems to be a link, so it begs the question what do the official indicators of productivity really mean, and what factors are included in making that determination.

I think our productivity is going to be increased by somebody turning the air conditioning on here. I do not know quite what is going on.

We need to know this in light of what we are seeking with a lack of jobs across the skilled spectrum.

I will ask the government panelists to go first and describe how they come up with this data and how it is used. Then we will open

up the floor for discussion. This is intended to be an open, free flowing discussion, but to maintain order if you could just raise your hand and wait until I call on you before making your comments?

We obviously are joined by our Ranking Minority Member here, Congressman Velazquez, and also by my Illinois neighbor, Bill Lipinski. If the two of you want to have a brief opening statement, then we could get right into the meat of the topic.

Ms. VELAZQUEZ. I do not have an opening statement.

Chairman MANZULLO. Okay. Bill, did you have anything you wanted to say?

Mr. LIPINSKI. I just want to say I appreciate very much, Chairman Manzullo and Ranking Member—

Chairman MANZULLO. It is Manzullo. Manzullo was the alderman from Chicago.

Mr. LIPINSKI. Well, the problem really is is that all these years you have been pronouncing it and spelling it incorrectly. If it was Vito Manzullo, that has to be the way because Vito never made a single mistake in his entire life.

Getting back to what I was saying before I was so rudely interrupted and corrected there by the Chairman, I simply want to say that I appreciate very, very much what Don Manzullo is doing in this area and what Ranking Member Velazquez is doing in this area. I think it is an enormously important subject. It is something that has to be addressed. Unfortunately, I do not think it is being addressed by enough people in this country.

I am trying to do as much as possible in this area, but certainly the Chairman and the Ranking Member of this committee are in a much greater position than I to really accomplish something, so I salute you. I congratulate you. I thank you very, very much for holding this round table and all the other work that you have done pertaining to American manufacturing.

Chairman MANZULLO. Thank you, Congressman Lipinski. Congressman Kelly, did you have an opening remark?

Ms. KELLY. I have no statement.

Chairman MANZULLO. Okay. Thank you.

The first presentation would be from BLS, Bureau of Labor Statistics. Who would be speaking? Marilyn? Okay. Go ahead.

STATEMENT OF MARILYN MANSER, BUREAU OF LABOR AND STATISTICS

Ms. MANSER. I want to begin to thanking Congressman Manzullo and the committee for inviting us to this round table.

Ms. KELLY. Could you please pull that microphone closer to you? You are not being picked up.

Chairman MANZULLO. Thank you, Sue.

Ms. MANSER. Now can you hear me?

Chairman MANZULLO. Much better.

Ms. MANSER. I want to thank Congressman Manzullo and the other Members of the committee for inviting us to this round table today. The measure of productivity and the interpretation of what the productivity numbers are telling us is certainly an important issue today.

We have a handout that I am pretty sure everyone here at the table has at least. I do not know if everyone in the room has one. I will be talking through that handout.

Chairman MANZULLO. Could you hold that up? Is it this?

Ms. MANSER. It is Manufacturing Productivity Measurement.

Chairman MANZULLO. Thank you.

Ms. MANSER. I want to begin with just a little bit of perspective on the productivity picture. Productivity growth during the recession from the first quarter of 2001 through the fourth quarter of 2001, as well as productivity growth during the first seven quarters since the trough, has been higher than previous comparable periods.

Explanations for these facts we think should cover the entire period starting with 1990 because in fact we really saw an upswing in productivity growth starting in 1990 compared to the preceding period.

In terms of manufacturing, we also see a strong acceleration of productivity growth during the 1990s, and that strong acceleration has continued during the last recession and the current recovery. To summarize what I am going to be showing with some of our data, the rate of outsourcing of goods and services for manufacturing was steady during the 20 years ending in 2000 and as a result does not appear to be responsible for the productivity speed up during that period.

Now, by outsourcing for manufacturing to other sectors we are including both outsourcing from the manufacturing sector to businesses in other sectors of the U.S. economy, as well as offshoring because we cannot separate those two kinds of effects in the data, but they have the same sort of impact on the measures.

We produce a family a productivity measures. There are three key measures of productivity that one can look at. I talked about these when we met with Congressman Manzullo and some of the others here today in December, and I will be talking about what the data show in a minute.

If you want to pull out the table I am going to be talking about and sort of look at it side-by-side, it is two slides behind the Manufacturing Productivity Measures slides.

Chairman MANZULLO. Is that Table 1?

Ms. MANSER. That is Table 1.

Chairman MANZULLO. This one here?

Ms. MANSER. Right.

Chairman MANZULLO. Thank you.

Ms. MANSER. Okay. So sectoral output per hour is the measure on the left-hand side of that table. Sectoral output per hour is defined as the real value of shipments leaving an industry, including the value of intermediate inputs, divided by hours at work. This is the measure that we are able to produce on a current quarterly basis.

Value added output per hour is the measure that is in the third column here, and value added output per hour is sectoral output—that is the output measure in the first column—less the real value of intermediate inputs per hour of work. We have these data through 2001. The data for 2002 are just extrapolated based on the sectoral output measure.

Multi-factor productivity is a more comprehensive view, we think, of productivity. It is the series that is in the middle of that page. In multi-factor productivity, the output measure is the same as in the first column, sectoral output, but it uses a broader measure of inputs.

Rather than comparing output growth to the growth of labor hours, it compares output growth to the growth of inputs, of hours worked, capital services, energy, non-energy materials and purchased business services. Those series presently go only through 2000. We will be publishing measures through 2001 next week.

Okay. Now, what is the effect of outsourcing on manufacturing measures? We get the same output through outsourcing or offshoring, and we cannot distinguish them, but what is the effect on the measures?

Well, on sectoral output per hour, and I think this is the point that some of you may have been concerned about. If there is offshoring or outsourcing, sectoral output remains unchanged, assuming the same final good is still being produced, while hours, measured hours, those hours used here in the U.S., fall. This could in theory lead to a substantial rise in productivity as measured by the series. Whether that happens empirically is a different question, but in theory you could get that effect.

Value added output per hour is the measure in the third column, and when we are looking at value added output per hour or productivity measured that way if there is offshoring or outsourcing, both the value added output fall and the hours fall, leading to not much of a change in productivity measured on that basis.

In fact, the only effects that we really would get in that type of a productivity measure arise from differing productivity growth rates of outsourced production from the remaining production in the U.S. and new production that may take place; really compositional effects.

In the multi-factor productivity measures, as I already stated, sectoral output will remain unchanged if there is outsourcing or offshoring, but in this case the input measure will also change. Labor hours will fall, but purchases of outsourced intermediates

will rise. In some, this will lead to a modest effect on measured multi-factor productivity growth because the productivity of outsourced production may differ from that of the remaining production.

In practice, as we look at the pattern of productivity change in these three measures for the period through 2000 where we have data available for all of them, the pattern of productivity trends and the story we get about strong productivity growth is the same on all three measures.

In fact, sort of counter to the possibility that the sectoral output per hour measure could be somewhat overstated compared to the value added output per hour measure as a result of growing use of intermediates, that is actually not what we see in the data through 2000. We actually see the reverse; that the value added output per hour measure actually grows a little bit faster than the sectoral output measure, and that is because output is growing very strongly compared to the growth of intermediates.

Mr. PRICE. What accounts for that difference? Why would the value added not be faster than the shipments made?

Ms. MANSER. It is faster. Why? Because intermediates are not growing as fast as the other components of output growth, as multi-factor productivity and capital inputs.

Chairman MANZULLO. Lee, if you could—

Ms. MANSER. Right. I actually will be saying a little bit, I think maybe make that point a little bit clearer in just a minute.

Chairman MANZULLO. Let me let the folks with the official stats go first because I want to lay the predicate here and then open it up for further comment and questions. I have tons of questions, but I am going to withhold them until we can make the presentations with the official data and then work from there.

Ms. MANSER. Right. Okay. Before I talk about the data in the following table, I want to just reiterate and expand a little bit on the definition of multi-factor productivity. That is the next page of the handout.

As stated already, multi-factor productivity compares outputs to inputs. It compares output to input of hours, of capital services, of intermediate purchases of non-energy materials, intermediate purchases of energy and intermediate purchases of business services.

Outsourced and imported inputs are included in the intermediate inputs, but they cannot be explicitly identified in the data. Within this framework, we can account for labor productivity growth as the sum of multi-factor productivity growth and the contributions of shifts in the mix of inputs. That is what we see on the next table, which is Table 2.

To walk through this table, let me begin by looking at the period 1973 to 1990. I might say a little bit about the choice of periods. These are the periods that analysts of productivity growth often

compare. We are looking at peak to peak changes. 1973 was a business cycle peak, as was 1990.

1995 was not a business cycle peak, but we often like to look at the first part of the 1990s compared to the later part of the 1990s because during the 1990s we saw an unusual situation where productivity growth picked up in the latter part of a long cycle, and that is not the pattern of productivity change that we usually see in long business cycles so it was a somewhat surprising number when we first started observing that in the data.

Okay. Returning to the first column, for the period 1973 to 1990, labor productivity grew at an average annual rate of 2.6 percent, and that 2.6 percent equals multi-factor productivity growth, which was 0.5 percent, quite low during that period, plus the effects of input deepening, so during that period the increased use of materials outsourced from the manufacturing sector to other sectors, whether other sectors in the U.S. or overseas, that increased use of materials relative to hours at work contributed an average of one percent a year to labor productivity growth during that period.

The increased use of business services, purchased services from outside the manufacturing sector relative to hours worked, increased 0.4 percent on average through that period, so they were contributing strongly to labor productivity growth during that earlier period.

Looking now at the period 1990 to 1995, we see a strong pickup in labor productivity measured on this sectoral output concept, which is our preferred concept, a productivity growth of 3.3 percent per year, and that equals multi-factor productivity growth of 1.3 percent.

We also had a strong increase in multi-factor productivity plus the effect of input deepening, but the contribution of increased use of materials relative to labor hours and increased use of business services relative to labor hours was about the same during the first part of the 1990s as it was during the 1973 to 1990 period.

What that means is that during that period increased outsourcing was not responsible for the pickup in labor productivity growth. This was contributing to productivity growth, but not contributing to the acceleration of productivity growth. The same thing is the case for the latter part of the 1990s. The effect of input deepening is roughly the same as in the earlier two periods, while labor productivity and multi-factor productivity grew even faster.

These are the data that are the source of the statement we make on the second page of the handout where we basically say that the rate of outsourcing of goods and services for manufacturing to other sectors was steady during the 20 years ending in 2000. It was really 27 years. As a result, this outsourcing does not appear to be responsible for the productivity speed up up through the year 2000.

I want to make just a few remarks about the effect of outsourcing and offshoring in the quarterly non-farm business labor productivity measure. This is the quarterly labor productivity measure that is most widely watched because it refers to the entire non-farm business sector in the U.S.

In this measure—

Chairman MANZULLO. Marilyn, how are you doing on time? I do not want to take away from your presentation, but I—

Ms. MANSER. Almost done.

Chairman MANZULLO. Okay.

Ms. MANSER. Next to the last slide.

Chairman MANZULLO. There are some people here that are ready to pounce on you.

Ms. MANSER. Okay.

Chairman MANZULLO. I just want to give them the opportunity. Go ahead.

Ms. MANSER. Okay. Output for non-farm business, like gross domestic product, is measured by delivery—

Chairman MANZULLO. What page are you on there?

Ms. MANSER. Nine. Page 9.

Chairman MANZULLO. Nine? Thank you.

Ms. MANSER. Output for non-farm business, like GDP, is measured by deliveries to final demand. By definition, there can be no intermediate inputs in this definition. It is, if you will, a value added type measure.

Imported goods and services to consumers reduce output dollar for dollar, so in this measure output and input are really not affected by outsourcing, and the effect of outsourcing and offshoring on productivity comes from compositional effects, which are likely to be fairly modest.

To wrap up and conclude, the data show that the productivity speed up has been ongoing since 1990. Since 1979, outsourced materials and purchased business services contributed about 1.5 percent per year to sectoral output per hour growth in manufacturing. Actually, that trend started in 1973.

Outsourcing can explain little of the manufacturing productivity speed up through 2000. The productivity data cannot specifically identify the effect of offshoring separately from domestic outsourcing, and non-farm business and value added manufacturing labor productivity are only modestly affected by outsourcing or offshoring. This happens through compositional effects.

That is all I have to say.

Chairman MANZULLO. Thank you.

Ms. MANSER. My colleagues and I will be happy to answer any questions.

Chairman MANZULLO. Okay. Dr. Cooper, did you have a presentation you wanted to make?

**STATEMENT OF KATHLEEN COOPER, DEPARTMENT OF
COMMERCE**

Ms. COOPER. I do not have a presentation. I just want to say BEA, the Bureau of Economic Analysis, which produces the numerator part of this measure, is comfortable with all that is done there with regard to how it feeds into the productivity numbers.

We do not have a representative from BEA here today. I am here instead, but I would say that we are also comfortable with the measurement issues that BLS has put together and that Marilyn has talked about.

I just want to emphasize that, as she did mention, around the middle of 1995 or thereabouts we did see a sizeable upturn, as we all know in this room, in productivity performance in the U.S. economy, and I think what is interesting and important for those of us who follow the economy and its progress, what is interesting for us to take note of is at the very same time and continuing today not only did productivity accelerate, essentially doubling the pace of growth that was experienced from that period 1973 to 1995 that you defined, that Marilyn defined, but at the same time we have seen an acceleration of comparable magnitude in real compensation of workers.

That is what this is all about. This is about higher productivity bringing on higher wage gains and higher standards of living.

Chairman MANZULLO. That will evoke a lightning strike from one of the Members here.

Ms. COOPER. I am sorry?

Chairman MANZULLO. That will evoke a lightning strike.

Ms. COOPER. I am sure it will, but I think it is good to get it out there and talk about it.

Chairman MANZULLO. I appreciate that.

Ms. COOPER. That is why we are here to discuss it today.

Chairman MANZULLO. That is right.

Ms. COOPER. It is nice to be here. Thank you for inviting me.

Chairman MANZULLO. Let us open it up to questions, comments, interchange of ideas. This is free flowing. All I would ask is that you state your name and which group you are with, if any, and speak directly into the microphone.

Go ahead.

STATEMENT OF LEE PRICE, ECONOMIC POLICY INSTITUTE

Mr. PRICE. I am Lee Price. I am from the Economic Policy Institute.

When the calculations of multi-factor first started in the 1950s, one of the first researchers talked about what that measure was, which is really a residual, as a measure of our ignorance. It is not a measure of something that we know what it is.

When you look at Table 2 and look at the period 1973 to 1990, you see multi-factor productivity going up five-tenths. What we measured was labor output in manufacturing relative to hours in manufacturing as going up 2.6. The question is how do we account for that?

If there is more capital being used, that could account for it; more materials being used, that could account for it. When you did all of those things, you accounted for most of it. You are only left with a residual that you could not explain of five-tenths.

Now we go forward to the most recent period of 2.1, and that is an increase in our level of ignorance by 1.6 percentage points. That matches up against the labor productivity increase of 2.6 to 4.3, so 1.7. We got a 1.7 acceleration in manufacturing output per hour, and the things we used in materials, business services, energy and capital do not account for but one-tenth of that.

What we can account for, our ignorance, is the biggest part of it. I think we know of a number of trends going on in the economy that make it plausible that we have problems in the way we are measuring those things. We have offshoring.

This stops in 2000, but we know just from the published statistics that BEA gives us that we have lost half a percent of GDP, unusually so in a recession. In the last three years, CBO calculates we have lost half a percent of GDP per year and dragged from the widening trade deficit in real terms. That is offshoring of production for supply here in large measure.

Another part is when we do offshoring of services it is not clear that we have very good measures of what is happening on the services side. As she has said, we have materials going up—that would be the components would show up there—and business services, but I am really puzzled with a measure that says that business services, outsourcing from the business sector, slowed down in the 1995-2000 period. I think it is implausible that it slowed down further in the last few years.

What we do know, though, is the other BLS statistics that do take us up to the third quarter. In that respect, output in the four quarters ended in the third quarter was up by 4.4 percent. I am sorry. Productivity was up 4.4 percent, but output was down by 0.4 and hours were down by 4.7 percent, so in the most recent year there was a big drop in hours. They are capturing in the official statistics what a lot of us hear from the general public; that they are not getting hours.

The manufacturing output is shrinking, and the hours are shrinking even faster. That shows up also in the December jobs numbers. Between the end of 2002 and the end of 2003, December to December, we went from 15 million to 14.5 million. Almost all of that was in production workers.

We have had a huge drop in just the last year in the number of people employed in the manufacturing sector. That has been faster.

We had a decline. I am not sure what the 12 month change in manufacturing production has been, but it is pretty close to flat even as we have had this big contraction in hours.

I think when you talk about the multi-faction numbers stopping in 2000, there is reason to believe that since 2000 there has been a shift towards outsourcing of both components and of services.

**STATEMENT OF ALAN TONELSON, U.S. BUSINESS AND
INDUSTRY COUNCIL**

Mr. TONELSON. Thank you. Thank you, Mr. Chairman. My name is Alan Tonelson. I am with the U.S. Business and Industry Council, and we represent predominantly small and medium sized manufacturing companies.

I would just like to make two points fairly briefly. One, it is good to hear an acknowledgement that the productivity figures do not distinguish between offshoring and outsourcing at home.

At the same time, that failure to distinguish between these two business trends is very important and would suggest that there are some serious limits to the ability of these numbers to shed light on what has been concerning a great many of us in recent years, and that is the health of the American based manufacturing sector, as opposed to the health, for example, of multi-national industries or all multi-national companies that use offshoring to increase productivity.

That is awfully interesting. I certainly want to know that, but I am much more interested in the health, by whatever measure you choose, of the U.S. based manufacturing complex. When productivity rises because of offshoring, that not only does not tell me anything about the health—again, whatever measure you want—of the U.S. based manufacturing complex. It can produce a somewhat misleading figure.

The second point that I would like to make is that we know or we should know that there has been a very substantial increase in the imports of intermediate goods into this economy in recent years. There is a handout in front of you all that shows increases in import market share for about 90 categories of major industrial products. One set goes from 1992 to 1996. One set goes from 1997 to 2001.

I had to break them up because we changed over in terms of measuring industrial output in the annual survey of manufacturing from the SIC system to the NAICS system, so precise comparisons are hard, but we do see very substantial rises in imports in the market share in the U.S. market of imported goods, including many, many categories of intermediate goods since 1992.

We see that the outsourcing of this production has been very substantial. Again, I do not mean to be critical of the federal government, for at least at this point perhaps the state of the art simply does not permit us to distinguish between the two kinds of outsourcing that we are faced with, but I hope that we could acknowledge that as a result of that inability to make this distinction there are some serious limits in the light that these productivity figures shed on the health of the U.S. based manufacturing sector,

not U.S. owned firms. The U.S. based firms doing manufacturing in this country.

Chairman MANZULLO. Thea, go ahead.

STATEMENT OF THEA LEE, AFL-CIO

Ms. LEE. I just wanted to make a couple of broad points about what the numbers mean and what we think they mean and maybe sort of what we need to think in terms of the future and how we look ahead.

Obviously, as Ms. Cooper said, the reason we care about productivity growth is that this is the basis for non-inflationary wage growth and so it is very, very important to us, but we do see I think certainly in the last couple of years a gap between productivity growth and the gains that workers are getting.

I think it is important for us to really make sure when we talk about productivity that we are talking about a measure which intuitively makes sense to us and that is going to be sensible to move forward. Measures take a long time to change. As Lee said, multi-factor productivity started a few decades ago, but it takes a long time to fix them.

Certainly to the extent that offshoring of the inputs, as Alan shows, is a growing trend, that it may be the case that this is not responsible for some of the growth in productivity in the recent term, but it may be in the future. If so, I think it is important that we think about how we might revise these numbers as we look to the future.

I think most Americans, when they see productivity growth, are thinking about companies being more efficient, using technology better, workers working harder. They are not thinking about buying huge amounts of imported inputs and artificially in some sense inflating productivity through that. I do think it is something that needs to be taken into account.

I guess there is another question that goes to the points that Lee was raising too about how much confidence do we have in the numbers and the difference between, for example, outsourcing domestically, as Alan said, and importing product.

The quantity of labor that is contained in those two different things may be very, very different. The input/ output figures that we are using that we calibrate the productivity numbers with, are those keeping up with the changes, with the offshoring and the very, very different production functions possibly, very, very different labor/capital input ratios that may be used in other countries due to very, very different relative prices of inputs.

I guess those are some of the questions that I hope maybe we will get to later on today, but just as we think about the numbers, the productivity numbers, certainly the sectoral output per hour, it seems to me that is a number that does not represent what we want it to represent, which is the productivity of workers, how hard they are working with what kind of technology to the extent that imported inputs will alter that number. It is just I think a common sense problem.

Chairman MANZULLO. Before we go to Joel, did anybody have a response to that? It is not necessary.

Ms. MANSER. I would just say I guess just—

Chairman MANZULLO. Marilyn, could you pull that closer to your mouth? Thank you.

Ms. MANSER. Just a few points. I think we do think and this follows up a little bit on what Lee was saying, that multi-factor productivity is probably the measure that we would most like to be able to highlight because it is the most comprehensive measure, and it does take account of all the substitution inputs. Unfortunately, the data lags badly in terms of—

Chairman MANZULLO. Is there a reason for that? It just comes in real slowly?

Ms. MANSER. Right. It is because you have to rely on data sources that just cannot be collected and processed that fast.

We do see, and this is what Table 1 showed, that we have historically, up to at least the year 2000 we have seen the same trends and the same story about productivity acceleration and strong productivity growth coming from the quarterly sectoral output measure as we see from the multi-factor productivity measures.

In terms of the data that we have to date, I do not think we really can say that the sectoral output measure is not giving us a good picture of whether we are having acceleration or not.

It, of course, talks about productivity. What we think of as multi-factor productivity is what we often think of as changes as productivity changes in technology, better organizational structures, economies of scale, things that really increase our ability to produce output with the same inputs.

Chairman MANZULLO. Joel?

Ms. MANSER. That is what multi-factor productivity tells us and why we think that is a good measure, but we cannot, unfortunately, say what that is going to look like for the last two years.

Mr. PRICE. Is that not just a surmise? I mean, multi-factor productivity—

Chairman MANZULLO. Let me go to Joel.

Mr. PRICE. Okay.

Chairman MANZULLO. Joel, go ahead.

Mr. YUDKEN. Lee, do you want to finish your point?

Mr. PRICE. There are a lot of things that multi-factor productivity could be. We would like to think that they are better technology,

better organization, but we do not know that. It may be poor measurement of the other things as well. We cannot really distinguish.

I am not challenging your effort to try to get the best measures you can, but if we have poor measures of inputs those would show up. The effect of that would show up in multi-factor productivity.

If we have understated the material input by poor measurement, that would show up as higher multi-factor productivity just as well as better technology.

Ms. MANSER. That is correct. That is correct. Just to make one point in terms of what the story and the picture of productivity is, though, and how things change, Lee was making the point that multi-factor productivity was very low from 1973 to 1990 and, you know, has sped up and is it possibly a question of mismeasurement or a question that we do not understand what is going on, but the issue used to be why was productivity growth so low in 1973 to 1990.

If you look at the figures, multi-factor productivity grew 1.5 percent from 1949 to 1973, so what we have really seen is a return to the higher measure of productivity growth that we had for earlier years in the first part of the 1990s and then a speed up beyond it in the latter part of the 1990s.

Chairman MANZULLO. Joel?

Mr. YUDKEN. Yes.

Chairman MANZULLO. State your name and position. Name, rank and serial number.

Mr. YUDKEN. I do not know what my serial number is.

STATEMENT OF JOEL YUDKEN, AFL-CIO

Mr. YUDKEN. I am Joel Yudken. I am with the AFL-CIO Public Policy Department.

I have one technical question that I am grappling with understanding, which in the end we are talking about some equation with a bunch of terms which you are all trying to measure each one separately. I think the problem we have is that there could be a lot of methodological issues and problems with actually what they mean and how we collect them.

I have three more general questions, and I will try not to be too long. The first technical question is I was trying to grapple with the equations you use, which you do provide in your various documents and which show the relationship of the labor productivity to the multi-factor and all the other components.

It looks like labor productivity is additive of multi-factor plus these other components. Is that right?

Ms. MANSER. Productivity growth.

Mr. YUDKEN. Trying to calculate them, you get into using natural log relationships and quotients, which my math is not what it used

to be. It has been a long time, and so I am not sure. You use weights, and the weights are related to the cost of the factors, the relative cost.

Here is the question, because I am just asking. I really do not know. It is just a suggestion here. Those weights, can they not be part of the mystery here that we are trying to fathom here in terms of when you start offshoring some of your activity and they come back as part, they are cheaper than they would have been in they were produced here.

Therefore, would that not in fact lessen the component part of materials in your measurement relative to what in fact it would have been, let us say, if it was produced here, but outside or incorporated? Maybe you can explain a little bit. I do not know.

Chairman MANZULLO. Larry, did you want to take that question?

Mr. ROSENBLUM. Yes.

Chairman MANZULLO. If you could hand the mike down? Again, state your name for the record.

STATEMENT OF LARRY ROSENBLUM, BUREAU OF LABOR AND STATISTICS

Mr. ROSENBLUM. Larry Rosenblum, Bureau of Labor Statistics.

The answer is that yes, it would, but if they are buying less expensive inputs then presumably there is an efficiency gain that is going on through doing that. In fact, if they are—excuse me. I do not want to speak technically.

If they are operating as efficiently as they can, they will alter their production so that the value of the cost of the goods equals its value in production, so it should fall. That is correct.

Chairman MANZULLO. That is presuming the price goes down on the completed item.

Mr. ROSENBLUM. No. Just for the intermediate that they are now buying from overseas.

Chairman MANZULLO. All right.

Ms. LEE. Just a quick followup in terms of the word efficiency. You know, if you are buying the goods from overseas and they are cheaper, you can say they are produced more efficiently. It is also the case that they may be produced in a way that damages the environment or where workers are treated very badly.

Mr. ROSENBLUM. And they may not actually be produced more efficiently. I mis-spoke. They are simply cheaper.

Ms. LEE. Right.

Mr. ROSENBLUM. Now, the firm that buys them presumably is going to equate marginal cost in production in a way that will alter

their mix of how they produce things in a way that the value share of material should in fact fall and reflect changes in the marginal products of other inputs. Yes, they should fall, to answer to your question.

Mr. YUDKEN. Would that not mean that this—

Chairman MANZULLO. Joel, could you talk into the mike more directly, please?

Mr. YUDKEN. This 1.1.0. If you had a significant growth of offshoring inputs, could that not in fact be understated here?

Mr. ROSENBLUM. If you are assuming that firms are operating competitively, then price is equal to value of marginal products.

Now, I am not going to get into the issue about whether firms are operating competitively or foreign markets are competitive. That is beyond my pay grade, so to speak, but in a competitive market—

Mr. YUDKEN. In theory.

Mr. ROSENBLUM. —in theory the lower price should reflect its value.

Mr. YUDKEN. It should balance in some way, but I guess that is an open question. I have three other points, but I will—

Chairman MANZULLO. David, did you have a comment you wanted to make or a question?

STATEMENT OF DAVID HUETHER, NATIONAL ASSOCIATION OF MANUFACTURERS

Mr. HUETHER. Yes. Hi. I am Dave Huether, chief economist at the National Association of Manufacturers. We represent manufacturers of every size, every industry here.

This has been a concern of a lot of our members in talking about this, about outsourcing. I guess one of the questions I have is that one of the things that I think we need to address and to find out is if this is a structural event going on or is this a cyclical event that has been caused by some external forces such as U.S. competitiveness in manufacturing.

I know that you look at inputs of manufactured products and you look at that as a share of domestic production. It has gone up very much since 1997. In 1997, imports of manufactured products were about 14 percent of production. Now it has gone up about 50 percent. It is at 32 percent now.

I know Alan was mentioning earlier that to an extent it is very difficult to ascertain how much of this is imports of capital goods, how much of it is consumer goods, how much of it is intermediate products, but I think that another thing to really kind of investigate is how much this has to do with the strong value of the dol-

lar which occurred during the late 1990s and made imports extremely inexpensive.

U.S. firms, since they had no pricing power, were seeking the lowest cost possible. Now we have all seen that the dollar has come down in the last year or so, so the question is whether or not this trend is going to continue going forward.

The other point I kind of would like to make is that a lot of discussion with respect to productivity ends up becoming discussion about jobs in the United States. While I think productivity definitely has—

Chairman MANZULLO. It took us 40 minutes to get there.

Mr. HUETHER. Yes. —an impact on jobs, looking at that is really looking at half the equation in the sense that you need to look at productivity growth, as well as output growth in the manufacturing sector.

There is one constant really that has been going through the manufacturing sector for about 50 years, and that is if you look at when output growth in the manufacturing sector rose faster than the productivity growth, manufacturers had employment, and when productivity grew faster than output manufacturers reduced employment.

This has been true in every year since 1950 except three years, so I think when we look at what has been going on in the last three years, especially the last two years since “recovery” began, we really have to look at why, even though productivity has been trending a little higher, but what has kept manufacturing recovery in terms of output growth so sluggish, which has kept manufacturers from seeing demand increase enough to begin to regain employment.

I think that when all is said and done, talking about productivity growth and whether or not this measure is off a little bit here or there, I think when we think about what is going to drive the employment numbers back up in manufacturing is going to be the domestic international conditions that are going to make manufacturing production start to begin to outpace manufacturing productivity.

Chairman MANZULLO. Alan?

Mr. TONELSON. I just wanted to make a quick point about the import levels and how they bear on the question of whether this growing import dependence is mainly structural or mainly cyclical.

What my figures show, and this is not the trade deficit. It is very important to understand that because the trade deficit is an increasingly inadequate measure of the real effects of trade on employment and living standards in this country because so much trade today consists not of finished goods being traded back and forth between one producer and one customer.

For example, Boeing makes an airliner and sells it to Air France. Perhaps 40 or 45 percent of all global trade today has nothing to do with that. It is the constant flow of intermediate goods and inputs of various kinds around the world within the production

chains and outside also the production chains of multinational companies.

Trade deficit is helpful in some regards certainly, but really limited. The market share numbers show you how were U.S. based producers performing head to head, whether they are U.S. owned or foreign owned, versus producers overseas. What these figures show is that the market share losses began well before the dollar run-up of the mid 1990s.

I wish I could find data going back before 1992. I have not found it. If anybody knows where it is, please tell me. I can only find it back to 1992. This predates the dollar run up which began in 1995.

Chairman MANZULLO. Bill Beach? Go ahead.

**STATEMENT OF WILLIAM BEACH, THE HERITAGE
FOUNDATION**

Mr. BEACH. Yes. My name is Bill Beach. I am from the Heritage Foundation at the Washington Think Tank, one of the few organizations at this table that cannot be outsourced, though I am sure there are some who wish we could be outsourced.

Chairman MANZULLO. Just wait. There are a lot of economists in India.

Mr. BEACH. Indeed. Indeed. It is a coming phenomenon. I will be back on the other side of this issue, I am sure.

Let me just say a couple of things, Mr. Chairman, just to add to this discussion, which is fascinating and highly constructive. Productivity measures, as Lee has pointed out so skillfully, have been a controversial issue for a long time.

Now, a lot of the discussion that we are having in the policy community and you are having as policymakers turns on numbers. Unfortunately, you have some very difficult numbers you have to work with. Let me suggest that if you cannot work directly with the numbers there, as my colleagues from BLS will no doubt affirm, what you can do is look at the other side.

We have not talked about consumers today. One of the things that productivity, high gross productivity, should be doing is raising the quality of standards, the quality of goods, lowering prices. Those are the things that are sort of the mirror of productivity, the returns to capital and returns to labor, as Secretary Cooper had pointed out. We should be looking at increasing wages.

If you cannot find multi-factor productivity as a comfortable concept or cannot measure it well, then you can look at these other things. I think the committee would be well served to do so. Life of capital goods in service.

Another thing which has only been mentioned a couple of times, and I really do hope we do mention consumers more, but another item. This is not the first time this Congress has had this discussion about outsourcing. It seems to me, and I have been doing this a long time, that we come to this issue almost every time we have a recovery after a recession. We begin to think about all those jobs that are going overseas.

Chairman MANZULLO. My District's unemployment is at 11 percent.

Mr. BEACH. Indeed. Indeed.

Chairman MANZULLO. That does not include the four factories that have announced they are closing down, so we are not exactly dancing in the streets in Rockford, Illinois.

Mr. BEACH. Well, that is right. That is my point. Every time we come to a recovery—that is we have just gone through a recession—we come through a point in the early stages of that recovery where we have this discussion because we are concerned about, A, high unemployment that is not coming down the same way the other numbers are going up, and outsourcing that has occurred.

I was working for one of the governors of Missouri back in the early 1980s. We had just gone through a very severe recession. We had 18 percent unemployment in certain parts of the state. I will close on this. The discussion that this governor was having with the folks in St. Louis was what to do with the Brown Shoe Company.

The Brown Shoe Company at that time wanted to relocate very badly, and there was a great deal of political pressure brought on Governor Ashcroft to keep the company in the state, along with Zenith Television.

Well, the decisions were made just not to resist that desire to go overseas, but instead to put the emphasis of the state on retraining those employees so that in fact Brown could go to Brazil, Zenith could go to Mexico, could produce at higher margins as they wanted to do, and those employees would be retrained to better paying jobs.[The information follows:]

Chairman MANZULLO. Let us go to Don Marron.

STATEMENT OF DONALD MARRON, JOINT ECONOMIC COMMITTEE

Mr. MARRON. Thank you, Mr. Chairman. I am Donald Marron. I am the staff director of Congress' Joint Economic Committee.

I am just revisiting some of the comments I heard earlier. I want to make sure that going back to the issue of how you measure productivity that we not ask of productivity the wrong question. I think in just sort of a traditional economic framework, productivity is a measure of how much Americans, if we are focusing on America, can produce per hour of their work using whatever means possible.

It might be innovations in technology. It might be the recognition that they can import certain services from other countries. It might be the recognition many decades ago that we could import oil from other countries.

Productivity is really about just using everything at our disposal, how can the American worker produce as much as possible or what is the measure of how much they can produce, so I am hesitant to say or to allow it to be said that the measures of productivity we

have at the moment are artificial. I think for what they are being asked to measure—

Chairman MANZULLO. Are official?

Mr. MARRON. Artificial. Sorry.

Chairman MANZULLO. Artificial.

Mr. MARRON. I heard some people say we may be experiencing artificial improvements in productivity because of the opportunity to outsource, and I think in reality if you are asking productivity, how can we produce stuff using whatever means are at our disposal, importing or outsourcing is one of those means, and productivity is a fair reflection of the average productivity, the average stuff that is produced by the American worker.

Now, I share Alan's concern that you need metrics for how the American manufacturing sector is doing, and I would submit that output and jobs would be the first two natural things to look at and that they would give you a good metric for thinking about how things are going.

As you know better than I in the manufacturing sector, output has done quite well over the long run, but has had a difficult time with the recent recession and the very slow recovery for a variety of reasons which we could get into. Jobs have had a less good time in part because of rapid advances in productivity.

Those are I think reasonable metrics to look at when asking about how manufacturing is doing. I just want to make sure we do not ask the wrong question of productivity and invest in perhaps coming up—well, it would be difficult to come up with a different productivity measure I think. That is not the most productive way to go.

Rather than saying we have productivity measures; they look at what the average output of American workers is. That is the right thing to ask of them. There may be some interest in some sort of measure that is the state of technology if that is what people have in mind by sort of the layperson's notion of what productivity is.

I think total factor productivity is the measure that comes the closest to that that we have today, but, as Lee rightly points out, it is residual, and it is very, very hard to measure.

Chairman MANZULLO. Thank you. Tom?

STATEMENT OF THOMAS J. DUESTERBERG, MANUFACTURERS ALLIANCE

Mr. DUESTERBERG. Thank you, Mr. Chairman, and I want to thank you for convening this very useful discussion.

At the risk of changing the subject, I want to make two comments. One, with regard to productivity and the effect of outsourcing, we have done a little bit of work through Manufacturers Alliance and—

Chairman MANZULLO. Tom, pull that in closer. Could you? Thank you.

Mr. DUESTERBERG. We have done a little bit of work which collaborates what Marilyn Manser reported about the effects of outsourcing on productivity. We think it has very little impact, although we have a sense that probably there is a little bit more outsourcing, an uptick in outsourcing over the last six or eight years, which I think is probably obvious.

The second point I would make is that these discussions always convert to jobs, you know, and I am very aware of the situation around your area because a lot of my members are from Rockford, Illinois.

What we think, and this responds to one of Dave's points about whether or not this is a cyclical or a secular question. We did some work jointly with NAM to try to look at the cost side of the equation as a way to get at whether or not there has been a secular change in the competitiveness of American manufacturing.

I think we have all heard anecdotally that various forms of costs, such as health care costs, have been rising fairly rapidly. There has been an uptick in health care costs the last few years ago, so the actual cost of labor—

Chairman MANZULLO. Now, that is part of productivity is the cost of health care. It increases, but that is reflected in it.

Ms. COOPER. It pushes productivity.

Mr. ROSENBLUM. Right. I mean, it changes the cost of labor, but it does not affect productivity directly except as, of course, firms may want to outsource or reduce their labor, whatever.

Chairman MANZULLO. Tom, go ahead.

Mr. DUESTERBERG. We did some work trying as best we could, as much as the data will allow, to compare the costs of manufacturing in the United States versus the nine leading trading partners of the United States.

If you look just as unit labor costs, raw unit labor costs, which are wages, basically wages alone, the United States is reasonably competitive. Their costs are lower than places like France and Germany, surprisingly close to even South Korea.

When you add in costs, and we looked at five categories—taxes, employee benefits, including health care, tort costs, natural gas costs, which have doubled in the United States or more, as you know, in the last few years, and certain forms of regulatory costs.

We found that we added over 22 percent to the cost of labor in the United States, so this is one reason that you have seen an explosion in productivity because firms just have to try to do better with the labor that they have in order to compete.

It also suggests that maybe we should pay a little bit of attention to that side of the equation, the cost side of the equation. That is what we are really interested in.

Chairman MANZULLO. Marvin?

**STATEMENT OF MARVIN KOSTERS, AMERICAN ENTERPRISE
INSTITUTE**

Mr. KOSTERS. Thank you, Mr. Chairman. I am Marvin Kusters at the American Enterprise Institute, and I would like to raise a question about something that has not been mentioned.

There are lots of data sources around, and our data system is really very rich. Both the Department of Commerce and the Department of Labor are very forthcoming about the data and how they are used, but sometimes when there are multiple sources of data questions arise about possible inconsistencies and about which is the more accurate measure of one thing or another.

I think in particular of the input side here, the labor measurement, particularly in view of recent trends that have one measure of our labor, but growing more rapidly than another measure.

It raises questions in my mind, and I realize they are defined differently and so on, but the questions it raises in my mind are, one, how the two measures can be reconciled and whether the measure of labor input that is used in the productivity measurements primarily is more accurate or not than the other labor input measure.

I would myself be curious about whether we have some information about that issue.

Chairman MANZULLO. Does someone want to try to respond to that?

Ms. UTGOFF. Yes. Let me try.

Chairman MANZULLO. Kathleen, if you could state your name for the record for the reporter?

**STATEMENT OF KATHLEEN UTGOFF, BUREAU OF LABOR AND
STATISTICS**

Ms. UTGOFF. Yes. Kathleen Utgoff, Bureau of Labor Statistics.

Chairman MANZULLO. Thank you.

Ms. UTGOFF. Marvin has pointed out something that a number of people have noticed, which is that the household series of employment has grown faster than the payroll series, and the issue is how do we do that in productivity.

The productivity measures come from both series, from the basic data that is used for the payroll series, and it also has things like self-employment that come from the household series, so it is a mixture of both.

Chairman MANZULLO. Kathleen Cooper? Did you have something?

Ms. COOPER. No. Labor is there.

Chairman MANZULLO. Let me just throw out a couple things here because we expect a series of votes around 3:15. Let me put a hypothetical here.

If I have in the manufacturing process four firms—Firm A is located in Rockford, Illinois, which, by the way in 1981 led the nation in unemployment at 24.9 percent, so we have had some tough times there. Company A in Rockford and Companies B, C and D. A, B and C provide parts. Company D does engineering. This is all done in the United States, okay?

Productivity increases at let us say just for the heck of it eight percent. That could be due to a lot of things. Faster machines. High-speed, hard-milling machines now are at 30,000 rpm. Seven months ago they were at 13,000. I am sorry. Twenty thousand rpms. You can see it is a faster machine. It does the job faster, but we bring in more orders. Therefore, we have to add employees.

That is going on now with Don Buzzacross, who has the first high-speed, hard-milling machine in the United States delivered from Japan. The machine tool is not made here. That is pretty easy to figure that one out what productivity is. It is a faster machine.

Let me throw this out to you. If in the parts end of it Company A over here does the assembly and some manufacturing, B does manufacturing, and now you have Company C. All of a sudden instead of Company C in the United States, Company C is in China. That part now is made at 20 percent of what the cost of the part that was made by the company when it was in the United States.

Are you with me at this point? Would that increase productivity? You are making the same product, only cheaper.

Mr. ROSENBLUM. In the manufacturing sector, if you are using the sectoral output, which is the first definition we mentioned, sectoral output per hour—

Chairman MANZULLO. Right.

Mr. ROSENBLUM. —it is true that output of those four firms or three manufacturing firms would remain the same. The hours would go away of Firm C that left and moved to China, and so sectoral labor productivity would rise.

Chairman MANZULLO. Okay.

Mr. ROSENBLUM. Sectoral multi-factor productivity is likely to be largely unchanged except for a compositional effect if, for example, C was a very weak firm and by moving off seas the remaining firms were relatively strong, so you have a composition effect. You are left with two really good firms in the industry, and you got rid of the third one, but largely it would be unchanged.

Now, finally with the value added output per hour that again would have very little change in productivity because both the output and the hours of Company C would decline in the measures. Again, you might have a composition effect if C is a relatively low productivity firm compared to A and B.

Chairman MANZULLO. Thea, and then Lee?

Ms. LEE. I just had a quick point. We started talking about productivity gains being the basis for real wage gains. Now, the workers who are left behind are not likely to get a wage increase when Company C moves to China.

Chairman MANZULLO. Their company closed.

Ms. LEE. Right. I mean the workers at Factory A, even though their output looks like it has gone up. I guess that is really one of the questions I want to raise. It goes I think to the point that Mr. Marron was making that there is really no difference. Your productivity can go up because you are using imported imports just as well, and that ought to be the measure.

I guess my question is do we see the same basis for productivity gains to be translated into real wage gains when some of that productivity, some portion of it, is coming through imports rather than increased technology and harder work effort or even the most efficient plants being—

Chairman MANZULLO. Kathleen, do you want to try to tackle that?

Ms. COOPER. I would simply say, and I am sure there are others who want to comment too, but I see no reason why if these firms, if the other firms that are left are doing better as a result of a stronger sector and more ability to pass on and earn higher profits, I do think that wage earners would end up ultimately—not immediately, but they would end up doing better longer term.

In addition, we need to think about how the capital that is earned by the shareholders of the firm that went to China, how those shareholders redeploy that, reinvest it in the U.S. economy most likely, but potentially in a broader way.

Chairman MANZULLO. Lee, and then Joel? Microphone?

Mr. PRICE. Just to modify your example a little bit, and I think it explains another phenomena that is going on. If you have the three component places and the engineering place, let us say they are all in the same company. They are establishments in the same company.

Chairman MANZULLO. The same company. Okay.

Mr. PRICE. They ship out to a foreign source one of the three parts places. If the engineering place gets paid more, their average worker pay is higher than in the component production places. That will raise the value added measure.

The manufacturing sector looks like it is, in Kathleen's terms, healthier. You have fewer workers in manufacturing. The average has gone up because the jobs that you have outsourced were lower paid than the engineering jobs that you kept.

To the extent that we have had, and I think we have had, keeping more of the headquarters and engineering jobs here and shipping out the production jobs, that is going to raise both manufac-

turing productivity, but also the value added measure of productivity.

Chairman MANZULLO. Lee? I am sorry. Joel?

Mr. YUDKEN. I wanted to bring back to the productivity measure in relating the multi-factor to the actual numbers you had.

Aside from the methodological and some of the technical issues, we have been trying to raise some questions of whether or not we are measuring what we think we are measuring and whether or not there is—what you have talked about is what we had seen up until the year 2000.

I was trying to play with the numbers, your own numbers here, and you can sort of see that after 2000 you just sort of have—

Chairman MANZULLO. Joel, where is that chart?

Mr. YUDKEN. I just brought it with me. I was playing on my own computer here. I can give you a copy of this.

Chairman MANZULLO. Okay. Thank you. Go ahead.

Mr. YUDKEN. This is the BLS data. I just took it off the tables today. This is the labor productivity indexed to 1992, starting everything at 1992. You see that the labor productivity continues to rise after 2000 at a fair clip.

What you do see, though, is that the output starts to drop and then sort of stagnates. I mean, it starts to move up a little bit towards the end, which may be recovery we may be or may not be seeing.

Labor hours dropped dramatically, which reflect in this curve here the employment, this sharp drop since 2000 in employment, which, of course, we are talking about employment. It is an important part of this whole issue.

The problem is that in what you have measured and what you have talked about, assuming what we have seen over the last decade and before in part was in fact growing technology improvements, a changing in organizational structure, remanufacturing becoming much more prevalent. It is not just technology that produces efficiencies in organizational change. Other factors as well as maybe increasing steady outsourcing as part of that.

Even assuming that up to this point there is a big, dark area about what has happened since 2000 where we have seen this sudden drop in hours, and we have seen a continued seeming surge in productivity, but output itself is rather shallow. That is also seen in their own bar chart.

Again, you start seeing that you have a lot of drop in output in the last two or three years with the drop in hours. It is just a faster drop in hours, which could be that companies when they are in the downturn they start shedding jobs. They ask workers to work longer hours. A lot of other things happen that drive up productivity, but the output is lower because demand is lower because of the recession or whatever factors. There also could be a drop in the fact that they are moving stuff away.

What I am trying to say is that there is this relationship that is unclear, and so far you do not have the multi-factor data to tell us one way or the other, assuming this additive thing is true, and whether or not the component of the materials and the outsourcing are still the same or whether there is a growing component there that we cannot measure.

You know, if it is still the same, then what is explaining this continued growth and productivity? I guess I am just having a hard time believing, especially since we have seen this drop in output, that it is just about improved technology. Maybe that is there, but it seems that something is still not understood about what we are seeing in this productivity growth.

Now, I just want to respond to one thing Donald mentioned because he was making the equation that productivity growth is responsible for the job loss. You know, that just simply is not true. Productivity in fact is not necessarily correlated with any job growth or job change at any particular time.

Historically, and I think your own JEC document pointed that out, it has been associated with job growth. It has been used. I am just wrenching that because—

Chairman MANZULLO. No. This is great.

Mr. YUDKEN. —the productivity numbers have been used recently to say well, that is what has caused the job loss.

Chairman MANZULLO. That is correct. That is one of the reasons why we had this here.

Let me go to Lee, Don and then Alan. Go ahead.

Mr. PRICE. You had your hand up.

Mr. MARRON. Okay. I would like to stipulate that Joel's interpretation of my position is correct regardless of what I may have said earlier.

It is the case I think that sudden productivity enhancements can lead to short run dislocations which reduce jobs, which I think is the concern, but in the long run absolutely.

I wanted to go back, Mr. Chairman.

Chairman MANZULLO. But could you defend that?

Mr. MARRON. Actually, I was going to use the example you gave earlier as an attempt to build on that.

Chairman MANZULLO. All right. Go ahead. I do not mean to use the word defend. This sounds like a doctoral thesis.

Mr. MARRON. Right. No. Your story was, and I will over simplify it slightly, Company C used to sell stuff to Company A, and now Company A buys it overseas.

Chairman MANZULLO. That is correct. From China at 25 percent of the cost.

Mr. MARRON. So then we had the question about how that affects the productivity calculation, and I believe—I do not know the gentleman's at the end name, but—

Mr. ROSENBLUM. Larry.

Mr. MARRON. Larry's description about what he characterized, I believe, as what you might think of as being the first order direct affect of that change, but that the overall affect on productivity is going to depend on what happens to those people who used to work at C because we have to account for where they go in the economy.

Chairman MANZULLO. I can give you the names of about three million of them.

Mr. MARRON. And also then what happens to Company A, because Company A is now more efficient and will presumably gain market share and sell more stuff. There will be some efficiency in the economy.

Chairman MANZULLO. We have the economic theories coming out.

Let me see. Who is next? Alan?

Mr. MARRON. So Company A will probably expand and hire some more people, and maybe that will get some of the people from C. Maybe it will not. Some of the people in C will go into some other aspect of the manufacturing sector. Some of them will go into the services sector, and some for some time period will presumably unfortunately remain unemployed.

I just want to have on the record for you the technical point that the ultimate effect on productivity is going to depend for those people who get re-employed what their productivity is in the new place that they land, and then sort of the beauty of the dynamic economy is that over time entrepreneurs say—I used to be one; I failed, which is why I am in government now.

There are entrepreneurial folks out there who are looking for people to work with who will create new jobs in the future. I mean, I sense and feel the pain of the folks for whom this takes time and it is difficult, but the long run history of our country and many other countries is that over time the folks get re-employed in newer and better opportunities.

Chairman MANZULLO. Okay. Alan?

Mr. TONELSON. I think Lee was. I think you actually called on Lee.

Chairman MANZULLO. Go ahead.

Mr. TONELSON. I thought he had his hand up before I did.

Chairman MANZULLO. Okay. Go ahead.

Mr. PRICE. There are a couple of arguments being made here that—

Chairman MANZULLO. Get closer to the mike, please.

Mr. PRICE. Lee Price. There are a couple arguments being made here that I hear often and I think are misleading. One is to say that the reason that employment has not gone up with hours is because of productivity, but that is a tautology.

Chairman MANZULLO. Just a second. What Thea said was that one of the reasons given by some—

Mr. PRICE. Right.

Chairman MANZULLO. —that jobs are not being created is due to productivity, if not the reason.

Mr. PRICE. Right.

Chairman MANZULLO. Okay. Go ahead. Why is that wrong?

Mr. PRICE. The reason that production has gone up and hours have gone down is because the ratio of the production to hours has gone up. By definition, that has to be the case.

Chairman MANZULLO. Okay.

Mr. PRICE. The question is why has the ratio of output to hours worked or jobs gone up? There are multiple reasons for that, some of which may be the phenomena you are trying to question whether that is contributed to. How much of it is import sourcing of what used to be done here?

I would say we do not have a good answer as to how much that has contributed, but it could be a significant part.

Chairman MANZULLO. Remember, BLS has, and Marilyn stated it very specifically. The productivity data cannot specifically identify the effect of offshoring separately from domestic outsourcing, so they are working within some very tight parameters.

Mr. PRICE. Right.

Chairman MANZULLO. Alan?

Mr. PRICE. Let me just make one other point.

Chairman MANZULLO. I am sorry.

Mr. PRICE. We have had a very unusual three-year period. We have never had a three-year period like this before.

Yes, it is true that manufacturing has gone down in previous recessions, but it usually bounces back strongly. Manufacturing is lower today than it was three and a half years ago in terms of total

production. That is totally unique in the period since we have been doing monthly statistics to have this sustained decline in manufacturing output.

We have had 11 recessions since 1939 that we monthly have data for employment. The first 10 of them, employment hit bottom within three months. People talk about employment being a lagging indicator. In the first 10 recessions, it never was longer than three months after the end of the recession that we hit bottom and started adding jobs. We did not add jobs as fast in the tenth recession, the one in the early 1990s. We did in the first nine. We were adding jobs.

This time we continued to lose jobs. Part of it is what is happening to manufacturing. I think that manufacturers have decided that they need to be lean and mean and compete internationally, and what has happened in 2001 and 2002 may well be an interaction of what is happening to domestic competition and international competition.

They have been much more aggressive in cutting back in employment, and it has caused us to not have the kind of normal stabilization and rebound that we have had in the first 10 recessions.

Chairman MANZULLO. Alan, and then David?

Mr. TONELSON. I was just hoping to drag us back to greedy empirical reality from certain hymns we have heard about the glories of the beautifully dynamic American economy, which is a beautiful and completely dynamic thing, but in fact during the 1960s, during the 1960s expansion, we had a very substantial rise in labor productivity. I cannot remember the exact figure. It was about 50 percent. Real wages and manufacturing during the 1960s expansion rose by about 22 percent.

During the 1990s expansion, we had an even greater rise in labor productivity. It was about 60 percent. Real manufacturing wages went up 2.8 percent cumulatively, so the notion that well, when you get around to the first and second and third and fourth order and ninth order effects and workers will eventually get re-employed at higher wages, that relationship seems to be a lot more complicated now than it had been.

The second point is that it is just strange. I do not know the explanation, but it is strange that during the 1990s, a period of surging productivity growth in this nation, the market share of about 80 or 90 American industries, major American industries that I studied from 1992 to 2001, went down.

Competing head-to-head against foreign competition in this market, the market they should presumably know best and do the very best in, 80 or 90 industries losing market share despite world beating productivity increases.

Again, something is odd here, and I would hope we would be more ready to acknowledge this and acknowledge the limits of this data, which is widely used, but perhaps less revealing than has been recognized so far.

Chairman MANZULLO. Maybe we are placing too much emphasis on it also.

Mr. TONELSON. We may be.

Chairman MANZULLO. David?

Mr. HUETHER. Yes. Just to build on what Lee said, you know, the last three years have been unprecedented in the sense that since the end of the recession all the way to the end of 2003, so that is two years, manufacturing output edged up three percent. You compare that to what usually happens during the first couple years of a recession. Like you said, usually things bounce back.

That is true. The manufacturing output in the first several years of a typical expansion usually rises by about 18 percent. I think one of the reasons we have to look at it is why have there not been an increase in manufacturing employment. I think productivity is one of the reasons.

We also have to go back and look at the fact that manufacturing production has not consistently been positive continuously for three or four months until October of last year, so for a number of reasons we all know with respect to investment recovery lagging, export recovery lagging, there really has been no stimulus in the manufacturing sector.

If we look at where have we lost all of these jobs in manufacturing, it has not been in apparel. It has not been in textiles. It has not been in leather goods. It has not been in areas that are most import dominated. It has been in electronics. It has been in transportation. It has been in industrial equipment and fabricated metals. Combined, that is the majority of all the jobs lost in manufacturing in the past three years.

What do those sectors have in common? Well, they are all very export dependent and all very dependent on domestic investment as well. When you have no business investment recovery and you have no export recovery, it is not a far leap to assume that you are not going to have a recovery in the manufacturing sector where those are basically the three biggest sectors in manufacturing today.

I think that we have to always go back and take a look at what are the domestic and international conditions that are going to generate the demand that U.S. manufacturers really need to begin to see output growing fast enough to start offsetting this productivity growth and increasing the demand for workers.

I think there are some structural components here because imports as a share of shipments have been going up for decades, but I think the real thing to focus on is the conditions that are going to get manufacturing growing. I think and most people think that things are starting to turn around right now.

Chairman MANZULLO. Kathleen?

Ms. COOPER. Yes. I just wanted to second what David said. I mean, this has been a highly unusual recession and recovery period for the manufacturing sector, for the economy as a whole, but certainly for the manufacturing sector.

The reason it has gotten hit even harder, the main reason it seems to me it has gotten hit even harder this go around, has to

do with the two things he mentioned, exports very weak from the U.S. and actually the world as a whole and then secondly the investment goods part of our economy had not gotten hit, and now that this economic recovery has begun and these parts of our economy are starting to improve, I certainly expect and believe that over the course of the next year we are going to see some improvement in manufacturing.

Does that mean a sizeable improvement? Does that mean that job growth will be there in a major way? I think that is a different question obviously because what is going on and what these manufacturers have learned is that there are very high fixed costs of employment. Healthcare was mentioned. One could name a number of other issues that relate to the cost of hiring someone today.

I think manufacturers, like other businesses across this country, are being very cautious in putting someone on their payroll on a permanent basis. That does not mean that will not come and it is not getting ready to come, but it is going to take a while.

I think that is a big part of the reason why on a cyclical basis over the third and fourth quarter in particular we saw a great deal of reluctance on the part of companies to do that, but it has begun. We have a stronger economy, and it is going to actually show up in the manufacturing sector, I am convinced.

Chairman MANZULLO. Joel?

Mr. YUDKEN. Yes. It remains to be seen obviously, so I guess some of us who are not quite so sanguine about the whole thing that if we are indeed seeing, and I guess this comes down to the outsourcing, a large, increasing part of our industrial base being outsourced especially in some of these sectors you are concerned about, what does that mean in terms of any of the jobs coming back, or are these permanently lost?

If some of the high end jobs, and I know we are slipping more into a policy discussion beyond productivity, but if some of the high end jobs that we are talking about because they are more easily digitized, and technology certainly is a factor in making that possible. Is that going to mean that we—you know, are those good jobs that we are supposedly going to replace all the lower wage and bad jobs, which we do not think are bad, but some people call them that, going overseas.

You know, where are those jobs going to come from? In the end, if we do not have the kinds of jobs being created that replace the jobs that are being lost—

Chairman MANZULLO. And who is going to buy the stuff?

Mr. YUDKEN. And who are going to buy the stuff? Where is the boost to the economy?

E.P.I. had a recent study that showed that there is a definite shift from high wage to lower wage industries in the last few years. Am I correct, Lee? Am I stating this correctly?

Mr. PRICE. Manufacturing is the major driver in that though.

Mr. YUDKEN. Pardon?

Mr. PRICE. The loss of jobs within the manufacturing sector is the major driver.

Mr. YUDKEN. At the same time, we are seeing the huge boost in productivity, and it is being bandied about this is the greatest thing since sliced bread. Things cannot be that bad. The productivity is moving, and that is why we are raising this.

Chairman MANZULLO. Marvin?

Mr. KOSTERS. There has been a lot of comment about failure of manufacturing jobs to spring up with the recovery, but nothing has been said about how far down they went.

It is my observation that they have gone down less with this recession than during many earlier recessions. That is one reason why they have sprung back less strongly. I think of automobiles, for example. The automobile production in the country has held up better than in many earlier recessions, and that may be one reason why we do not see a quick recovery in employment manufacturing.

Chairman MANZULLO. Tom?

Mr. DUESTERBERG. This does not directly address manufacturing, but we are all wondering where the jobs are going. I mean, it is a legitimate concern. Here is some empirical data.

Chairman MANZULLO. Tom, could you talk directly into the mike, please? Thank you.

Mr. DUESTERBERG. Some empirical data about job growth and losses between 1999, the peak of the previous long boom, as we called it then, and 2002, the depth of the recent recession. These are BLS data.

Management jobs down 12 percent; business and financial operations and their categorization up 9.4; computer and mathematical jobs, 5.8 percent positive; then life, physical and social sciences up 18.6 percent; office and administrative support, a huge category, up .9 percent.

These are generally decent jobs, and it belies the notion that we are outsourcing back office jobs to India and China and not creating any new jobs. In fact, what is happening is we are outsourcing the lower level jobs—this is in the services sector—and we are creating opportunities for the higher levels.

Chairman MANZULLO. Tom, the problem is you have to return to Natasha Humphries. She worked in California, a high end—what did she do? Was she a programmer? A software engineer. Natasha and 12 of her co-employees, including a lady who was born in India, came to the United States, became a U.S. citizen.

Natasha was asked to go to Banglador and to train people to do the exact same thing that she was doing in the United States. In her testimony before our committee, I asked the question have you

been re-employed. She said no. Thea, you were there. I said of the 12 others that were laid off, have they gotten re-employed. She said only one.

I mean, the point is what are you going to retrain people for? You know, where are these jobs with the tremendous amount of offshoring that is going to India, for example? These are people that are reading x-ray films, radiation films. These are engineers, accountants. I mean, these are not low end. These are not service centers. These are high end, white collar jobs that are going to India.

Does that make U.S. companies more productive to use those services? You bet they do. They turn out the same product, only cheaper. Is that an increase in productivity? I would think it is.

There is a term they use back home for what happens to machines. It is called black hole. In one of the companies that was closing down, the guys came down to my office and said they were getting ready to black hole the machinery. I said what do you mean? He said well, we try to figure out what the codes are when they tagged where the machinery is being shipped to. I said well, where is it going? China, Mexico. If the machinery is leaving, what are these guys going to work on?

Mr. DUESTERBERG. Each loss of a job is a tragedy. Each individual story in itself is worthy of attention. I was just giving some overall statistics which show increases in jobs.

I think we need to do a better job of controlling the cost pressures on American manufacturers. I think we need to do a better job—

Chairman MANZULLO. I was not picking on you.

Mr. DUESTERBERG. —building human skills so that we can remain the innovative and technology leader of the world economy.

Chairman MANZULLO. Okay. Bill, and then Thea?

Mr. BEACH. Let me just point out two things, Congressman Manzullo. The BLS is now producing a data set, which they had produced years and years ago. It shows job gains and job losses, millions and millions and millions of jobs each year, which are created. These are in some cases employees who have lost their job and found another job, who have gone from a low paying job to a good paying job. That is kind of the way the economy works.

We actually cannot answer your question. The honest answer is we do not know where these people are going to get jobs. Nobody knows the answer to that, but we have to have some sense of is the economy producing jobs. If you look at these data, which have just begun to come out, yes, they are.

Second point. One of the things we have not discussed is the fact that we have the second highest corporate income tax in the world. We have business taxes on business taxes, which are very, very high.

Now, it could very well be that one of the unusual parameters, one of the things we did not expect to see, is the high operating

cost now for businesses in the United States. We may not be a business friendly country like we were 10, 15, 20 years ago.

That is an area where the Congress can do some work and a good deal of investigation. Two bills are pending, one in the House and one in the Senate right now, to take a look at our worldwide business taxes and what we can do to change that in order to create a little more business friendly environment.

Chairman MANZULLO. Okay. Lee, then Thea, and then Alan.

Mr. PRICE. When you reconcile the household survey with the payroll survey and take out the self-employed and the agricultural and the other that are in the household numbers, what you end up with is a relatively small difference between the two for the last year, year and a half.

There was an enormous difference in the late 1990s. The payroll numbers were going faster. There was an enormous difference in 2001 and the end of 2002 with the household survey doing better.

For over a year or so, the two numbers reconciled on the same basis of people in the household survey who look like they are holding payroll jobs are growing at about the same rate. It is a pathetically slow rate. It is just not an issue here.

Chairman MANZULLO. There were 1,000 jobs recruited in December.

Mr. PRICE. And there were 54,000 lost in the household survey. It is not that different. The household survey does show some people becoming self-employed. It does show some people being in—

Chairman MANZULLO. It does or does not?

Mr. PRICE. It does.

Chairman MANZULLO. It does?

Mr. PRICE. It does. It does show some people being—I do not know the trend beyond that, but when you make them on the same basis, you give a slight increase in the household, a slight decrease in the payroll over the last year, year and a half. It is just not the story.

We are not adding jobs anything like we should if we were keeping up with the growth of the population. We have a lot more people turning 16, 18, 20 than we have turning 65. You take into account what is happening with the working age population. We should be adding.

We have 250,000 people added to the working age population every month. Some of them are in school. Some are retired. Some are disabled. Some of them are married with kids and they do not want to work, but you expect 60 percent of them to be employed.

We should have 150,000 new jobs every month to keep up with the growth in the working age population. We have not had that for over three years. It is better to add 50,000 than to lose 50,000,

but every month we are not getting 150,000 the labor market is getting weaker, and wages are going slower.

Chairman MANZULLO. Thea?

Ms. LEE. I wanted to speak directly to this question about upward mobility and whether workers who lose their jobs in the manufacturing sector, get outsourced, are sort of moving smoothly up the job ladder to more productive and better paid jobs.

The displaced worker survey said the BLS used to collect, and I understand that this program is under consideration for being cut for budget reasons, which I think would be really, really a shame. This is a very, very important and very interesting survey. It actually tracks workers who have been laid off, follows them three, five years later, how many of them have a job and what their wage level is compared to their old job.

I think it is pretty clear what you see. I am more familiar with the numbers a few years ago, not the most recent ones, but certainly manufacturing sector workers take a big pay cut when they get re-employed. The higher paid they were, so steel and auto workers, for example, might take a 40 percent pay cut, whereas an apparel worker might take a 10 percent pay cut.

The people are not moving into higher paid jobs. This is following the individuals who have lost their jobs, have been displaced largely due to—for any reason for the different kinds of layoffs. I just think it is an important point because there is sort of a blitheness about the ease with which people move into better jobs. It is not happening.

Chairman MANZULLO. Alan, and then Kathleen? Did you raise your hand? Alan, and then Kathleen?

Mr. TONELSON. I wanted to just speak briefly about the business cost issue. I work for a group that again represents small and medium sized manufacturers. They hate regulation. They hate paying taxes, but they emphatically reject the idea or certainly the strong implication that we have just heard that the only way the United States can become globally competitive once again is to reduce our levels of regulations and also taxes from first world levels to third world levels.

Although there are always improvements that can be made in tax and regulatory policy, that kind of move would be obviously impossible politically and undesirable socially. We emphatically reject the notion that it is necessary to restore American manufacturing competitiveness.

Chairman MANZULLO. Kathleen?

Ms. COOPER. I just wanted to make the point that certainly what Lee said about the last three years being very tough years is absolutely correct, and that ties in with what Thea mentioned too. This has been a very tough period. The recession began in early 2001 or perhaps even before that. The NBER is considering whether it began in 2000.

It has been three very tough years, first recession and then trying to get this recovery going with a lot of highly unusual events causing a great deal of uncertainty in everyone's mind and in business people's minds certainly who have to make these decisions, so it has been a very tough period.

As Tom said, in every job, when someone loses a job it is very, very tough trying to get them re-employed because it is a wrenching experience. This is a churning economy. Bill mentioned the data that BLS puts out on how many jobs are gained and lost.

This is an economy, because it is so dynamic, that is going to continually provide challenges, and that is the reason the Administration has certain programs to help that. I will not go into the Department of Labor ones, but to help retrain workers.

I would say for Commerce, the kinds of things we have been trying to do, for instance, such as your manufacturers are feeling when their community is hit so hard because of concentration in a particular industry, what we have tried to do with our economic development administration is to work with the community, try to put together a strategy for development of industries and bringing in new industries, new companies that fit with the skills and the infrastructure of that community. We think that is one of the best things we can do.

Chairman MANZULLO. Joel? Quickly, and then we have to go vote.

Mr. YUDKEN. Yes. First I want to point out our goal should be not lowering our standards in terms of regulation, you know, but to raise labor standards, to raise environmental standards so that in China and all the countries where we are trading that they are at higher levels.

I think that goes to the second point that I wanted to raise about leveling the playing field. This is part of what we are concerned about, whether it the dollar issue of the trade or what have you. Are we operating on a level playing field internationally? This is one of the things that we are concerned about, which has been fostering a lot of the outsourcing and movement offshore and that we may never get back.

The third is that, you know, it is very well to talk about the aggregate and the overall, but in the end it is all very regional and very local. There are particular population groups, especially black Americans, who have suffered among the greatest in terms of this drop in manufacturing.

Manufacturing has been traditionally a job ladder, a career ladder for low income workers and through the middle class. They are losing that. Those communities are getting especially hard hit probably in parts of your state and in Chicago and around the country in urban area. Rural areas are also being harder hit.

You know, I just do not think that these issues are being dealt with sufficiently, and I do not think the policies, frankly, are—

Chairman MANZULLO. Let me thank you for coming. This is the 55th hearing that the Small Business Committee has had in the

past three years on the issue of manufacturing, loss of manufacturing jobs and loss of white collar jobs. Fifty-five hearings.

The reason for that is that Rockford is the tool and die center of the world. We have been screaming for years that when the orders fall off for the machine tools, that must be an indicator that we are in a downward spiral. We have been working with the fed, and when they come out with their beige book they are not taking a look at the order of machine tools as an indice as to whether or not interest rates should be raised.

The second thing is there is a phenomenal article that I cut out of the Wall Street Journal January 3 about Chinese companies that are now outsourcing because the price of labor has skyrocketed to about \$150 a month. They can outsource and get cheaper things, get this, from North Korea.

I want you to think about this. I want American manufacturers to think about this. Order anything from China, and you are having parts coming in from North Korea. You know the tyranny and the oppression of that government. The sociological impacts of what is happening are astounding.

The purpose of this meeting, and you guys all took off your political hats mostly, but really you did and added a tremendous amount to the discussion here. Our goal obviously is to try to restore manufacturing in this country.

We take a look at this figure we call a productivity figure and ask ourselves what all is involved in it. The figures on the multi-factor are three and a half years old. That seems to be about the most accurate ones that we can rely upon.

Let me throw out one of the standards that I use, and that is called the pink towel indication. A pink towel is used in machining to wipe your hands on for the machine oil. When the pink towel companies are down in their business, you know that the jobs are suffering in the manufacturing sector.

Again, thank you all for coming. You have been really terrific, and we appreciate your input this afternoon.

Mr. PRICE. What has happened to pink towels lately?

Chairman MANZULLO. They are having a hard time.
[Whereupon, at 3:52 p.m. the committee was adjourned.]

