

Originally Processed With FOIA(s):

1998-0004-F[1]

FOIA Number:

S

FOIA MARKER

This is not a textual record. This is used as an administrative marker by the George Bush Presidential Library Staff.

Record Group/Collection: George H.W. Bush Presidential Records
Collection/Office of Origin: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files

OA/ID Number: 29186
Folder ID Number: 29186-006

Folder Title:
Boskin (CEA - 1989)

Stack:	Row:	Section:	Shelf:	Position:
G	15	25	6	3

J.

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

cea

October 18, 1989

MEMORANDUM FOR GOV. JOHN H. SUNUNU

FROM: MICHAEL J. BOSKIN *mjb*

RE: Income Distribution and Economic Growth

One of the themes in the 1988 election was "the rich are getting richer, the poor are getting poorer." I made some calculations then which helped demonstrate the inaccuracy of these changes. The family income data released with the poverty data today can be used to analyze the change in the average income of families in each of 5 income quintiles. The income of each group grew at roughly twice the rate of inflation. The percentage changes in the average (after inflation) income for each group were remarkably similar and none varied much from the economy's overall real growth rate of 4 percent.

Comparison of the income distribution numbers from this morning's release of 1988 income statistics with the 1987 income distribution numbers:

FAMILY INCOME DISTRIBUTION

	<u>% Change Real Average Income</u>
Bottom Quintile	+4.3%
2nd Quintile	+3.4%
3rd Quintile	+3.1%
4th Quintile	+4.3%
Top Quintile	+5.0%

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
01. Memo	From Michael Boskin to John Sununu Re: Veto Recommendation (1 pp.)	11/24/89	P5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 5/12/05

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

November 24, 1989

✓
file

MEMORANDUM FOR GOVERNOR SUNUNU

FROM: MICHAEL J. BOSKIN *mjb*

RE: VETO RECOMMENDATION
Protectionist Measure Violating U.S./Canada Free
Trade Agreement Snuck onto NOAA Authorization Bill

Bill Frenzel and several others alerted me that they have just found out that Senator Mitchell has snuck a "lobster size limit" onto the NOAA authorization bill which would effectively prohibit importation of Canadian lobster. NOAA's appropriation has passed, and this seems a perfect veto candidate for all the following reasons:

- (1) It is blatantly protectionist.
- (2) It impairs our ability to implement the U.S./Canada Free Trade Agreement.
- (3) It is precisely the type of last-minute junk we are trying to prevent being added to legislation addressing other matters.

cc: Ambassador Carla Hills
Director Richard Darman
Secretary Nicholas Brady
Secretary James A. Baker, III

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
02. Memo	From Michael Boskin to John Sununu Re: Meeting w/Chairman John Dingell (1 pp.)	7/7/89	P5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 5/12/05

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

file

[REDACTED]

July 7, 1989

MEMORANDUM FOR GOVERNOR SUNUNU
CHIEF OF STAFF

FROM: MICHAEL BOSKIN *mb*
SUBJECT: Meeting with Chairman John Dingell

Last Saturday night, Bob Mosbacher and I, and our wives, went out to dinner with John and Debbie Dingell and some others. At dinner Chairman Dingell expressed privately to me (Bob is recused on the subject) his extreme concern about the upcoming clean air legislation. He believes it will be the toughest job he has handled in his time on Capitol Hill. He is deeply troubled by what he said was a proclivity of EPA to talk to, or "negotiate with," Henry Waxman and others, as if they are not part of the Administration, and circumventing Chairman Dingell. He anticipates much difficulty holding his Committee together, and actively wishes to work with the White House. He is extremely pleased with the flexibility/trading market incentives/making it easier for business to comply components of our legislation, although he foresees some technical difficulties therewith (such as getting the alternative fuels produced in time and in conjunction with the auto companies producing the cars for the right fuels).

He indicated his concern was so great that he expected that in Conference Committee he would want a high ranking Administration official to be present to assist in the debate and discussion and drafting; he wanted it to be someone authoritative and important, but not from EPA. He wanted someone from an agency inside the White House or the Executive Office of the President. I told him I would pass this along to you at the relevant time, and I assured him the Administration was desirous of working with Congress to produce a bill which incorporated our principles and was as close as possible to what we had proposed.

[REDACTED]

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

August 17, 1989

THE CHIEF of STAFF
has seen

MEMORANDUM FOR GOVERNOR JOHN H. SUNUNU

FROM: MICHAEL J. BOSKIN *MJB*
RE: Release Dates for Economic Statistics
8/17 - 9/5

A list of the dates of releases of government and important private economic statistics is attached. The most important are the following:

Consumer price index	- Aug 18	generally expected to be up a modest 0.2 or 0.3 percent.
GNP 2nd quarter revision-	- Aug 29	I expect considerable upward revision from the 1.7% previously reported.
Employment and Unemployment	- Sept 1	First important data for August. Job growth has been slowing. Very slow growth of employment (say below 125,000 jobs) would revive recession talk and concerns.

Also:

FOMC meeting	- Aug 22	The FED's FOMC (Federal Open Market Committee)--the policymaking arm of the FED composed of the 7 governors (currently 6 with the Heller vacancy) and 5 of the 12 district bank presidents--will be deciding whether to ease further--perhaps targetting a FED funds rate 1/4% below the current 9% target--and whether to give any discretionary authority to Chairman Greenspan. At the last meeting they voted to ease 1/4% from 9-1/2 to 9-1/4 and gave him authority to ease another 1/4% if he thought the data warranted so doing; he used up that authority.
--------------	----------	--

August 16, 1989

SCHEDULED RELEASE DATES FOR ECONOMIC STATISTICS

August 17 - September 5, 1989

	<u>Released to the Public</u>
Merchandise Trade	August 17, 1989
Consumer price index	August 18, 1989
Advance durable shipments and orders for July	August 22, 1989
Yields on FHA mtg. for August 1	August 22, 1989
State per capita personal income for 1988 (revised)	August 23, 1989
Auto sales for most recent 10 day period	August 23, 1989
GNP for the second quarter (rev)	August 29, 1989
Personal income for July	August 30, 1989
Employment situation for August	September 1, 1989
Leading indicators for July	September 1, 1989
Consumer surveys for August:* U. Michigan (tentative) Conference Board (tentative)	September 1, 1989
Purchasing Managers Report* for August	September 5, 1989

*Private data released to CEA Chairman Boskin by special arrangement.

THE WHITE HOUSE
WASHINGTON

February 7, 1989

TO THE CHIEF OF STAFF:

For your information.


James W. Cicconi

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
03. Memo	From Michael Boskin to POTUS Re: Comments of Key Business Leaders at Your Business Luncheon, Friday, February 4 (1 pp.)	2/6/89	P-5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

**Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 12/12/07**

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

1989 FEB -6 PM 2:50

February 6, 1989

MEMORANDUM FOR THE PRESIDENT

FROM: MICHAEL J. BOSKIN *MJB*

SUBJECT: Comments of Key Business Leaders at Your
Business Luncheon, Friday, February 4

At the luncheon Friday, I was cornered by several prominent business leaders who were concerned that the FED would "kill off the recovery." This was mentioned to me by Ed Brennan, Chairman of Sears Roebuck & Company; Wilson Taylor, Chairman, CIGNA Insurance; and even Bill Butcher, Chairman, Chase Manhattan Bank, who sits on an advisory committee to the FED which, to quote Bill, "the FED listens to, but ignores."

Without indicating any position on the issue, I did probe for information concerning supply shortages, wage pressures, price increase plans, sales outlooks, etc. The Sears response was fairly typical: some wage pressure in the northeast region, as the supply of people looking for part-time jobs in retail has declined substantially, but otherwise no indication of major cost increases, supply shortages, or impending price increases.

Several of the CEO's indicated they hoped they would have some ability to register their information and concerns with the Administration. I made no commitments or offers, other than that they should feel free to call me anytime they thought it was important.

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04a. Note	From Michael Boskin to John Sununu Re: Summary of Camp David Meeting (1 pp.)	5/4/89	P5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 5/12/05

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

THE CHIEF of STAFF
has seen

May 4, 1989

Determined to be Administrative
Marking

Rec'd COS
MAY - 5 1989

PRIVATE & CONFIDENTIAL

TO : GOVERNOR JOHN H. SUNUNU
FROM: MICHAEL J. BOSKIN *MJB*
RE : Summary of Camp David Meeting

Attached are a brief overview and narrative summary of the discussion with the outside economists and businessmen at Camp David. Recall the group agreed not to discuss with outsiders the views or statements of any of the other participants. As near as I can tell, all but Wanniski have complied.

Please do not circulate this to anyone else. If there are any questions, I would be happy to try to clarify things.

Governor, *File*

FYI, Boskin sent a copy of this to The President as well. Cicconi has forwarded it.

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
04b. Report	From Michael Boskin to John Sununu Re: Brief Overview of Camp David Meeting w/Outside Economists (14 pp.)	5/4/89	P/S	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By (NLGB) on 5/12/05

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

Brief Overview of Camp David Meeting with Outside Economists

The agenda for the meeting focused on four general areas:

1. Inflation and Unemployment
2. The Outlook for the U.S. Economy
3. Economic Growth and Productivity
4. Budget Policy

During the meeting several of the outside participants raised issues which fall into two other broad areas:

5. International Trade and the Trade Deficit
6. Savings and Investment

(1) Inflation and Unemployment

There was general agreement that demographic changes have reduced the level of unemployment that we can achieve without causing an increase in inflation. The aging of the baby-boom generation has increased the proportion of "prime-age" workers with lower unemployment rates. Moreover, the unemployment rate for younger workers and women is now lower compared with "prime-age" male workers. These changes could have lowered the unemployment rate where inflationary pressures begin to the range of 4.5 to 5.5 percent.

Moderate wage increases are further evidence that labor market pressures are not yet severe despite the low unemployment. However, some of the economists warned that there was some evidence of an increase in wage inflation (as measured by the employment cost index) and advised a very cautious assessment of the low unemployment rates. Further, as emphasized by Paul Volcker and Herb Stein, the inflation rate is still well above zero and needs to be gradually reduced to that level.

(2) The Outlook for the U.S. Economy

There were a variety of views about the short-run strength of the economy, but no one saw significant signs of a recession. Monthly statistical releases indicate some slowdown in February and March, but the businessmen saw no sign of reduced orders or inventory buildup in their industries. The importance of viewing the U.S. economic outlook jointly with the outlook for other industrialized economies was emphasized by Paul O'Neill.

Most agreed that the most significant risk to the economy was a rise in inflation like we experienced in the late 1970s. However, thus far there is no evidence of such strong inflation and all agreed that it would be unwise for the Fed to tighten in response to a temporary uptick in inflation due to oil price increases.

(3) Economic Growth and Productivity

The discussion about what to do to increase U.S. productivity repeatedly turned to education. The U.S. is behind Japan and other countries in providing education at the elementary and secondary level. A large fraction of the workforce is functionally illiterate. The President should use the "bully pulpit" and call a conference of governors to highlight the problems. Education is mainly funded at the state and local level, and it was felt that more Federal tax dollars are not needed beyond the amount in the President's educational initiative.

(4) Budget Policy

The outside economists were evenly split on whether a tax increase would be a good idea. The greatest concern about a tax increase is that it would simply raise spending with no effect on the deficit. But other economists--most vocally Herb Stein--disputed this effect of taxes on spending.

There was general agreement that a three-part package consisting of (1) a cut in the capital gains tax, (2) increased Presidential authority in the budget process, and (3) an increase in some other tax (e.g. gasoline) would be worth serious consideration.

(5) International Trade and the Trade Deficit

There was unanimous support -- both from the businessmen and the economists -- that the Administration maintain a strong commitment to open markets and reduced trade barriers. The businessmen both praised the Japanese for efficient and high-quality production and wanted the Japan bashing to stop. If bashing must be done, then bash U.S. industrial leaders. Most of the economists saw no harm from the U.S. trade deficit per se. Some said it simply represented the demand for U.S. dollars and assets. Others said the trade deficit was a symptom of another problem: the low U.S. saving rate compared to Japan and other industrialized countries.

(6) Savings and Investment

There was fairly wide agreement that the U.S. saving rate is too low. Cutting the budget deficit would increase the savings rate, but additional tax incentives are necessary to increase private saving. Those opposing this view--Art Laffer, Jude Wanniski--felt that the savings rate was the result of decisions made by individuals; government intervention was not appropriate.

Narrative Summary of Camp David Meeting with Outside Economists
Saturday, April 22, 1989

Outside Participants:

Paul O'Neill, Alcoa
John Akers, IBM
Paul Volcker, James D. Wolfensohn
Martin Feldstein, Harvard University
Richard Rahn, U.S. Chamber of Commerce
Kathryn Eickhoff, Eickhoff Economics
Herbert Stein, American Enterprise Institute
Jude Wanniski, Polyconomics
Art Laffer, A.B. Laffer Associates
Beryl W. Sprinkel, Consultant

Administration Participants

John H. Sununu, Chief of Staff
Nicholas F. Brady, Secretary of the Treasury
Richard G. Darman, OMB Director
Michael J. Boskin, CEA Chairman
Roger Porter, Assistant to the President for Domestic and
Economic Policy
John B. Taylor, CEA Member-Designate

After Michael Boskin's introduction, John Taylor presented the Council's preliminary analysis that the measure of unemployment associated with inflationary pressures is now lower than it was in the highly inflationary period of the late 1970s. The group then began a discussion of the inflation and unemployment issues facing the U.S. economy.

Inflation and Unemployment

Paul O'Neil felt that Taylor's characterization of the labor market in the U.S. economy at this time was about right. He added that profit sharing plans, which are more important now and which have recently been added to his own company's compensation schemes, should make the labor market more flexible in adjusting to economic shocks in the future.

Herb Stein emphasized that we have too much inflation right now and must get it down to close to zero.

Martin Feldstein basically agreed with Taylor's analysis of the demographic aspects of unemployment, but he also emphasized the total compensation figures for wage inflation are rising and are very important to monitor.

Beryl Sprinkel thought that one must go beyond these measures of inflation and unemployment and look at the general monetary policy thrust over the last few years. He felt that we have had much restraint in monetary policy in the last year and that this has a negative short-run effect on the outlook.

Paul Volcker agreed with Stein that inflation is still too high. The short-run effects of oil are probably temporary, but the threat of higher inflation is most crucial for the short-run outlook. He was very worried about inflation rising in the near future.

Richard Rahn felt that the inflation blip is almost over. We've already had a tight policy and the big threat of a downturn is already in place. He felt that the Fed was too tight and should get on with easing up at this time.

Kathryn Eickhoff felt that the recent upsurge in inflation was due to oil and that this will turn around. She also felt that the current low level of unemployment will be a squeeze on monetary policy with the Fed not having as much room to maneuver as in the past.

Art Laffer indicated that the weak dollar has had a significant upward effect on inflation. He was also concerned that the monetary base has been growing much too rapidly in the last few years.

Jude Wanniski emphasized that inflation is a monetary phenomenon, but he was more sanguine about the inflation issue because of the relative price of gold and oil at this time, which seemed roughly to be in equilibrium.

Short-Run Outlook

The discussion here began with Martin Feldstein stating that the flattening of the yield curve was a signal of a slowdown. He also said that the adjustable rate mortgages have been exerting a negative influence on spending, and that the trade balance is actually moving in the direction of greater deficit and this is slowing down the economy.

Paul O'Neill said he saw no big change in order rates, no inventory accumulation, no price pressures, and therefore, no slowing down of the economy. He also mentioned that many of the models at the macro level are not good at this point because they don't focus on the international aspects of the economy.

Kathryn Eickhoff felt that we don't have many signs of a slowdown now, but we are likely to be getting one later.

Trade and the Trade Deficit

John Akers warned that expectations had been raised that the recent changes in trade laws would result in an improvement

of the trade deficit. He was concerned that these changes in the law would escalate trade tensions between the U.S. and other countries. There was general agreement on these points.

Rahn worried about the discussion of "managed trade" that he has heard from certain members of the Administration, and felt that the Administration needs to establish a clear priority of a move toward free trade.

Volcker indicated that the trade deficit will not improve unless the savings investment balance improves. He stated that the bilateral trade deficit of the United States vis-a-vis Japan reflected Japanese savings being substantially greater than U.S. savings. The low U.S. savings rate is the problem in his view.

Laffer emphasized that a trade deficit can go on for a long time and the trade deficit is not the problem.

Stein said if it can't go on forever it will stop and agreed that the trade deficit is not a problem per se.

O'Neill then went on to describe how the Japanese are actually better at producing many goods than we are. In his experience, his Japanese competitors do a better job at producing some items than Alcoa.

John Akers agreed. "The Japanese are better at it than we are."

Then Rahn indicated that the trade deficit of the United States indicates a demand for U.S. dollars. Japan doesn't have a big trade surplus with the USSR because it doesn't want rubles.

Laffer worried that the dollar would fall if the trade deficit got worse and that this would have a negative effect on inflation, raising the prices of imported goods.

Sprinkel also said that the trade deficit was not a problem per se. "So what if there's a trade deficit," he said. "Most of the remedies for the trade deficit have costs which are significantly greater than benefits." He emphasized that investment to GNP ratios in the United States were doing quite well, at which point there was a discussion between Sprinkel and Volcker about whether real investment, or nominal investment, or gross investment, or net investment was strong.

Feldstein said that if one looks at the trade deficit from the middle of 1988, that it seems to be getting worse rather than better.

At this point Sununu asked O'Neill why the Japanese were better at producing certain goods than Americans. O'Neill went on to a long discussion of this subject indicating bad leadership, poor organization, poor treatment of hourly people, and a large bureaucracy which needs to be trimmed down in many U.S. companies. He felt that the problem was with U.S. business firms and argued that the main goal for government policy is to provide stability and sound tax policies and let the business sector keep going.

Means to Strengthen Productivity Growth

Most of the discussion in this area focused on education. O'Neill used his experience with Alcoa to emphasize the

importance of educational problems in the United States. He estimated that 20 percent of the workforce in some areas is functionally illiterate. He described remedial programs which had been tried out experimentally in certain plants to educate the workforce. He said that productivity has been stimulated very much by this.

Sununu said he thought the problem was more at the very top. People are not getting Ph.Ds any more. There was some discussion about whether it was more a problem of elementary and secondary education as distinct from advanced degrees.

O'Neill again emphasized that this was not a job of the Federal Government. "Don't tax us to provide what we should be providing ourselves" he said. "This is a problem for the private sector to handle."

Discussion with the President

At this point the President joined the meeting and Michael Boskin spent a few minutes summarizing the discussion that had gone on thus far. John Taylor summarized the discussion of the inflation and unemployment situation in the economy today. Martin Feldstein presented a brief overview of the savings problems facing the U.S. economy. He indicated that getting the savings rate up was a key issue, and in particular, the private savings rate. There was some dispute of the need to raise savings by Wanniski and Laffer, but basically the President was interested in what could be done to raise the saving rate.

Herb Stein suggested raising taxes, cutting social security, but not cutting defense. The President asked "Wouldn't raising taxes tend to reduce growth?" Stein answered that interest rates would fall if there were a tax increase. There was then some discussion about monetary policy. Volcker indicated that it would probably be unwise to expect the Fed to state formally that it would lower interest rates if taxes were increased, but this would occur through the policymaking process.

Continuing the discussion of tax changes, Richard Rahn indicated that any increase in taxes was most likely to lead to a dollar for dollar increase in government spending. He also indicated that there was a very weak empirical relationship between budget deficits and interest rates; bringing the budget deficit down would be unlikely to lower interest rates.

O'Neill indicated that he was nervous about the budget deficit and indicated a \$50 billion tax increase on gasoline would be great for the economy.

Akers also emphasized the problem with the budget deficit.

The President said he agreed that an increase in taxes would likely lead to an increase in government spending. Laffer said that he thought this would be the case too. Herb Stein said that there was no empirical evidence that higher taxes would lead to higher government spending.

There was some discussion about whether a tax increase would actually increase saving. Martin Feldstein said that his figures showed that national savings would clearly go up with a tax increase.

The discussion then turned to the Gramm-Rudman-Hollings legislation and its effectiveness. Kathryn Eickhoff was concerned about the loophole in Gramm-Rudman which allowed the deficit to increase after the Gramm-Rudman targets were hit. Richard Darman indicated that some fix-up in Gramm-Rudman would be useful, but he emphasized the advantages of the recent budget agreements. He said that sequester was still a possibility. Nick Brady indicated that, despite these loopholes, Gramm-Rudman is very useful. In his words, "It's the only element of sanity in the budget process."

The discussion then turned back to trade issues again with John Akers leading off the discussion, telling about his experience with Japan. IBM has been doing business in Japan for a long time. He has a lot of experience. He said the Japanese are the best competitors in the industry. The Japanese PC clone is of higher quality than American PCs. They're successful because they do a good job. We can't get workers to work as well as Japanese workers in his view.

Paul O'Neill agreed with this and went on to indicate that we need to do major changes with respect to education and leadership in the organization of business. He felt that it was time not to bash the Japanese but to bash American

industry. American industry should be committed to getting better every day and to get remedial training to the workforce where necessary. He again reiterated that this was not the business of the government, but of the private sector. The President indicated that he wanted to do more for education and there are ways to help. John Akers suggested that the "bully pulpit" be used and also suggested a group be assigned to assess progress in education. Later on he also suggested some kind of commission or conference of education leaders and mayors and governors to discuss the subject.

Richard Darman indicated that the overall thrust of economic policy should go beyond opening markets. It should also focus on developing human capital. Efforts to restore the importance of the family and address various cultural problems could alleviate many of the educational problems the country faces.

Finally, there was a discussion of the cost of capital in the United States being much higher than in Japan. This leads to less investment as well as investment in shorter lived assets. Paul Volcker stated that the source of this difference in the rate of return is the higher savings in Japan compared that in to the United States. At this time the meeting was adjourned. The discussion was to be continued over lunch.

Additional Issues Raised at Lunch

1. Taxes

The outside economists and business people were fairly evenly split on whether a tax increase would be a good idea. Those in favor of a tax increase included O'Neill, Akers, Volcker, Feldstein, and Stein. Those against a tax increase included Rahn, Eickhoff, Wanniski, Sprinkel, and Laffer.

O'Neill again suggested a gasoline tax stating that it would send the stock market soaring. He stated that he is in favor of such a tax even though it would be bad for Alcoa. Akers also favored a gasoline tax. Volcker, Feldstein, and Stein were in favor of a tax increase in general and did not focus on gasoline. In answer to the President's question about tax increases leading to more wasteful government expenditures, Stein admitted that a tax increase would lead to expansion of government programs he didn't like, but it would also permit programs that he did like.

In fact, much of the opposition to the tax increase focused on whether it would lead to a dollar-for-dollar increase in government expenditure and thereby little effect on the deficit. Sprinkel, Rahn, and Eickhoff emphasized this but Wanniski and Laffer were against the tax increase for the additional reason that it would be bad for the economy. They mentioned adverse supply-side effects. Laffer argued that taxes and borrowing are equivalent and therefore a tax increase wasn't worth the risk of more government spending.

Sununu asked whether the difference in views might be explained by disagreement over whether government spending would rise by 100 percent of a tax increase, or whether it would rise by 0 percent. Clearly the truth is somewhere in between. Herb Stein advised the President to have his economic advisers conduct an econometric study of the effect of tax increases on government spending.

Boskin tried to pull the group together by asking whether institutional changes (such as a modification of Gramm-Rudman or giving the President greater budget authority which might reduce the threat of an increase in government spending following a tax increase) would reduce the opposition to a tax increase. Sprinkel said such changes would reduce his opposition, but added that the changes were unlikely. There was also some discussion of bundling the capital gains tax cut with a gasoline tax increase. The President stated that vetoing the minimum wage bill coming from Capitol Hill would be part of his effort to establish credibility about resisting spending increases.

2. Short-Run Outlook

At lunch there seemed to be less of a consensus on the economic outlook than in the morning meeting. Eickhoff indicated that even though she didn't see a marked slowdown yet, she felt that the Fed would (and should) try to get real GNP growth down below 3 percent and would keep raising interest rates until a slowdown occurred. Feldstein indicated that the inflation rise went beyond oil and that the Fed should try to

get inflation down below 5 percent anyway. He suggested under 4 percent by 1991 as one example target. Sprinkel repeated that there was already monetary restraint in the system. Laffer felt the opposite.

3. Saving-Investment Incentives

There was considerable debate about the effectiveness of tax incentives to increase private savings such as Individual Retirement Accounts (IRA). Feldstein felt that his numbers on low financial savings in certain income groups suggested such incentives would have a big effect. Rahn agreed with Feldstein but Volcker strongly disagreed.

January 17, 1989

MEMORANDUM FOR WHITE HOUSE SENIOR STAFF-DESIGNATES

FROM: MICHAEL J. BOSKIN
CHAIRMAN-DESIGNATE, CEA *MJB*

SUBJECT: Remaining Statistical Release Schedule for
January 1989

<u>Release</u>	<u>Time and Date of Release</u>	<u>Agency</u>
Merchandise Trade (Nov.)	8:30 a.m. Wednesday, Jan. 18	Census/Commerce
Industrial Production (Dec.)	9:15 a.m. Wednesday, Jan. 18	Federal Reserve
Housing Starts (Dec.)	8:30 a.m. Thursday, Jan. 19	Census/Commerce
Consumer Price Index (Dec.)	8:30 a.m. Thursday, Jan. 19	BLS / Labor
Capacity Utilization (Dec.)	9:15 a.m. Thursday, Jan. 19	Federal Reserve*
Advance Durable Goods (Dec.)	8:30 a.m. Thursday, Jan. 26	Census/Commerce
GNP '88: IV	8:30 a.m. Friday, Jan. 27	BEA/Commerce
Personal Income (Dec.)	10:00 a.m. Monday, Jan. 30	BEA/Commerce

* CEA does not currently prepare briefing materials for capacity utilization.

Attachments

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

December 14, 1988

MEMORANDUM FOR WHITE HOUSE SENIOR STAFF

FROM: BERYL W. SPRINKEL *Beryl W. Sprinkel*
SUBJECT: Exports and Imports in October

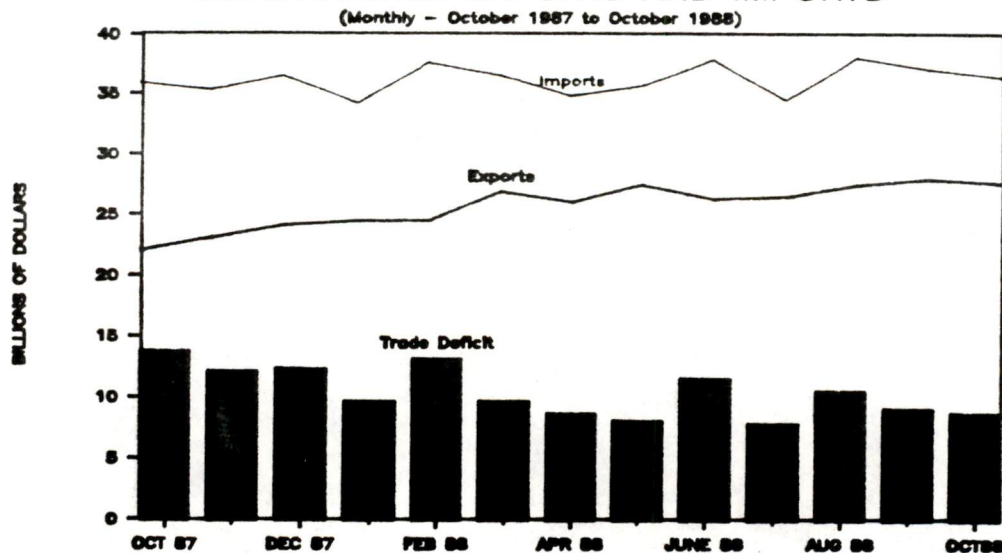
This morning at 8:30 a.m. the Commerce Department will release the advance report on U.S. merchandise trade in October.

The seasonally adjusted October trade deficit on a customs value (c.v.) basis was \$8.9 billion, down \$0.3 billion from the revised September deficit of \$9.2 billion. (On the traditionally reported cost, insurance, freight (c.i.f.) basis, the seasonally adjusted October deficit was \$10.3 billion, down \$0.3 billion from the revised September deficit of \$10.7 billion.)

October exports fell \$0.3 billion from September, but were \$2.1 billion or 7.6 percent higher than the previous 12-month average. Exports in the principal end-use categories of foods, feeds and beverages, industrial supplies, and consumer goods fell. Exports of capital goods (except automotive) and other merchandise rose. On a c.v. basis, October imports fell \$0.6 billion from September. Most principal end-use imports fell, with the largest declines in capital goods (except automotive) and consumer goods. Imports of foods, feeds and beverages, and industrial supplies and materials rose.

The average trade deficit for the three months ending in October is 28.7 percent lower than in the same three-month period a year earlier. Exports have increased 28.3 percent while imports increased 6.5 percent for the same periods.

MERCHANDISE EXPORTS AND IMPORTS



UNITED STATES DEPARTMENT OF
COMMERCE
NEWS
WASHINGTON, D.C. 20230

BUREAU OF
THE
CENSUS

FOR WIRE TRANSMISSION 8:30 A.M. EST
Wednesday December 14, 1988

CB-88-195
FT900 (88-10)

Gerald F. Kotwas (301) 763-5333
Minnie M. Davis (301) 763-7754

PRESS COPY

U.S. MERCHANDISE TRADE: OCTOBER 1988
(See PAGE 2 for a SPECIAL NOTICE and the SCHEDULE OF RELEASE DATES
FOR JANUARY 1989 TO DECEMBER 1989 PRESS RELEASES)

SEASONALLY ADJUSTED IMPORTS AND EXPORTS

IMPORTS (C.I.F.), EXPORTS (F.A.S.) AND TRADE BALANCE

October imports of \$38.0 billion and exports of \$27.7 billion resulted in a merchandise trade deficit of \$10.3 billion, \$0.4 billion less than the September deficit of \$10.7 billion. October imports were \$0.7 billion less than September imports of \$38.7 billion. October exports were \$0.3 billion less than September exports of \$28.0 billion.

The September to October change in imports reflected the net effect of decreases in capital goods (\$0.6 billion), consumer goods (\$0.4 billion), automotive vehicles, parts and engines (\$0.1 billion), and increases in industrial supplies and materials (\$0.4 billion), and foods, feeds and beverages (\$0.1 billion) while other merchandise remained virtually unchanged from September.

The September to October change in exports reflected the net effect of decreases in industrial supplies and materials (\$0.8 billion), foods, feeds and beverages (\$0.3 billion), and consumer goods (\$0.2 billion) and an increase in other merchandise (\$0.9 billion) while automotive vehicles, parts and engines and capital goods remained virtually unchanged from September.

IMPORTS (CUSTOMS), EXPORTS (F.A.S.) AND TRADE BALANCE

October imports of \$36.6 billion and exports of \$27.7 billion resulted in a merchandise trade deficit of \$8.9 billion, \$0.3 billion less than the September deficit of \$9.2 billion. October imports were \$0.6 billion less than September imports of \$37.2 billion.

The September to October change in imports reflected the net effect of decreases in capital goods (\$0.6 billion), consumer goods (\$0.4 billion) automotive vehicles, parts and engines (\$0.2 billion), and increases in industrial supplies and materials (\$0.4 billion), foods, feeds and beverages (\$0.1 billion) while other merchandise remained virtually unchanged from September.

SELECTED COMMODITY AND COUNTRY DETAIL

IMPORTS, C.I.F., EXPORTS, F.A.S. (Not Seasonally Adjusted)

Imports of manufactured goods at \$32.3 billion were \$2.2 billion more than the \$30.1 billion of September and \$2.8 billion more than the \$29.5 billion January to September average. Manufactured goods reflected the net effect of increases in new passenger cars, telecommunications equipment and parts, electrical machinery, organic/inorganic chemicals, gem diamonds, trucks, motor vehicle and tractor parts, copper and general industrial machinery and decreases in airplanes, clothing and footwear, and aluminum. Petroleum products at \$3.1 billion (233 million barrels) were \$0.2 billion less than the \$3.3 billion of September and \$0.5 billion less than the \$3.6 billion January to September average. The October average price per barrel (\$13.46) was \$1.14 less than the \$14.60 September average price and \$2.40 less than the \$15.86 January to September average price.

Exports of manufactured goods at \$18.7 billion were the same as in September and \$1.1 billion more than the \$17.6 billion January to September average. Manufactured goods reflected the net effect of increases in airplanes, power generating machinery, electrical machinery, telecommunications equipment and parts, and airplane parts and decreases in organic/inorganic chemicals, new passenger cars, copper, and general industrial machinery.

The October trade figures reflected deficits with Japan \$5.5 billion (\$4.1 billion), Taiwan \$1.4 billion (\$1.4 billion), Western Europe \$1.1 billion (\$0.9 billion), Canada \$1.0 billion (\$0.9 billion), Republic of Korea \$0.8 billion (\$1.0 billion), OPEC \$0.8 billion (\$0.7 billion), Hong Kong \$0.5 billion (\$0.5 billion), and Brazil \$0.5 billion (\$0.6 billion). The September deficits are shown in parentheses.

Carry-over in October was \$0.7 billion (1.7 percent) for C.I.F. imports and \$0.4 billion (1.4 percent) for exports. Carry-over in the revised September data was \$0.4 billion (1.1 percent) for C.I.F. imports and \$0.4 billion (1.5 percent) for exports.

SPECIAL NOTICE
(Repeated from July Issue)

The "Omnibus Trade and Competitiveness Act of 1988" contains a number of provisions affecting the presentation of the merchandise trade statistics: (1) it rescinds earlier legislation requiring that data on imports, valued on a C.I.F. basis (price paid for merchandise plus insurance and freight charges incurred in delivering merchandise to U. S. ports), be released at least 48 hours prior to release of the same data on a Customs value basis (price of merchandise only); (2) it authorizes adoption of the International Harmonized System (HS) as the U. S. standard for reporting product information for tariff and statistical purposes, effective January 1989; and (3) it requires that trade data be reported in terms of constant dollars as well as current dollars.

Beginning with the September 1988 press release (July 1988 data) and continuing through the February 1989 release (December 1988 data), the Census Bureau will provide a single monthly merchandise trade press release containing import data on both a C.I.F. and Customs value basis. The release will provide both sets of data seasonally adjusted for end-use categories and unadjusted for selected commodities and geographic areas. The change to a Customs value basis for import data in March 1989 (January 1989 data) will provide a more accurate picture of merchandise trade which will be consistent with the Bureau of Economic Analysis (BEA) balance of payments data.

The release schedule for the balance of 1988 will remain the same as previously published for the FT900 Advance report.

In the March 1989 release (January 1989 data), import and export data will reflect the adoption of the Harmonized System (HS) as the standard for U. S. trade statistics. The HS based export classification schedule contains about 8,000 commodity codes compared to 5,000 in the current schedule; the import classification schedule has about 14,000 commodity codes compared to the current 15,000.

For the first time, U. S. import and export classifications will be comparable with each other and comparability of import, export, and production data will be greatly enhanced. In addition, U. S. trade data will be comparable to that of our major trading partners.

Pending the result of research now in progress, the Census Bureau is planning to release in 1989 monthly import and export data in constant dollars as well as in current dollars. Constant dollar data will provide a more accurate measure of change in the volume of trade and its effects on real economic activity.

SCHEDULE OF RELEASE DATES FOR U. S. MERCHANDISE TRADE
REPORT FT900: JANUARY 1989 TO DECEMBER 1989

STATISTICAL PERIOD COVERED	FT900 DEPARTMENT OF COMMERCE NEWS ROOM—8:30 A. M.	
	Date	Day
JANUARY.....	3-15-89	Wednesday
FEBRUARY.....	4-14-89	Friday
MARCH.....	5-17-89	Wednesday
APRIL.....	6-15-89	Thursday
MAY.....	7-18-89	Tuesday
JUNE.....	8-17-89	Thursday
JULY.....	9-15-89	Friday
AUGUST.....	10-17-89	Tuesday
SEPTEMBER.....	11-16-89	Thursday
OCTOBER.....	12-15-89	Friday
NOVEMBER.....	1-17-90	Wednesday
DECEMBER.....	2-16-90	Friday

Inquiries concerning these dates should be addressed to Foreign Trade Division, Bureau of the Census, Washington, D. C. 20233
Telephone: 301-763-7754 or 301-763-5140.

CONTENTS

Text.....	1
A Special Notice and the Schedule of Release Dates for January 1989 to December 1989.....	2
Contents.....	3
Information.....	4
Exhibit 1. Exports (F.a.s. value), General Imports (C.i.f. value), and Merchandise Trade Balance, Seasonally Adjusted and Not Seasonally Adjusted: January 1986 to October 1988.....	5
Exhibit 2. Exports (F.a.s. value), General Imports (Customs value), and Merchandise Trade Balance, Seasonally Adjusted and Not Seasonally Adjusted: January 1986 to October 1988.....	6
Exhibit 3. Exports (F.a.s. value), General Imports (C.i.f. value), and Merchandise Trade Balance, Seasonally Adjusted and Not Seasonally Adjusted: November 1986 to October 1988.....	7
Exhibit 4. Exports (F.a.s. value), General Imports (Customs value), and Merchandise Trade Balance, Seasonally Adjusted and Not Seasonally Adjusted: November 1986 to October 1988.....	8
Exhibit 5. Exports (F.a.s. value) by Principal End-Use Commodity Category, Seasonally Adjusted and Not Seasonally Adjusted: January 1987 to October 1988.....	9
Exhibit 6. General Imports (C.i.f. value) by Principal End-Use Category, Seasonally Adjusted and Not Seasonally Adjusted: January 1987 to October 1988.....	10
Exhibit 7. General Imports (Customs value) by Principal End-Use Category, Seasonally Adjusted and Not Seasonally Adjusted: January 1987 to October 1988.....	11
Exhibit 8-1. Summary of Changes in Exports (F.a.s. value), General Imports (C.i.f. value) and Merchandise Trade Balance by Commodity Grouping, Country, Economic and Geographic Area, Not Seasonally Adjusted: September to October 1988.....	12
Exhibit 8-2. Summary of Changes in Exports (F.a.s. value), General Imports (Customs value) and Merchandise Trade Balance by Commodity Grouping, Country, Economic and Geographic Area, Not Seasonally Adjusted: September to October 1988.....	12
Exhibit 9. Exports (F.a.s. value), and General Imports (C.i.f. value) by Principal Commodity Groupings, Not Seasonally Adjusted: 1988 and 1987.....	13
Exhibit 10. Exports (F.a.s. value) and General Imports (Customs value) by Principal Commodity Groupings, Not Seasonally Adjusted: 1988 and 1987.....	15
Exhibit 11-1. Exports (F.a.s. value) and General Imports (C.i.f. value) by SITC Sections, Not Seasonally Adjusted: 1988 and 1987.....	17
Exhibit 11-2. Exports (F.a.s. value) and General Imports (Customs value) by SITC Sections, Not Seasonally Adjusted: 1988 and 1987.....	17
Exhibit 12. General Imports (C.i.f. value) of Petroleum, Not Seasonally Adjusted: 1988 and 1987.....	18
Exhibit 13. General Imports (Customs value) of Petroleum, Not Seasonally Adjusted: 1988 and 1987.....	19
Exhibit 14. Exports (F.a.s. value), General Imports (C.i.f. value) and Merchandise Trade Balance-- Countries, Economic and Geographic Areas, Not Seasonally Adjusted: 1988 and 1987.....	20
Exhibit 15. Exports (F.a.s. value), General Imports (Customs value) and Merchandise Trade Balance-- Countries, Economic and Geographic Areas, Not Seasonally Adjusted: 1988 and 1987.....	21
Exhibit 16. Exports (F.a.s. value), General Imports (C.i.f. and Customs Values), and Merchandise Trade Balance, Seasonally Adjusted Three Month-Moving Averages: January 1986 to October 1988.....	22

COVERAGE

The U. S. foreign trade statistics

- A. include government and non-government shipments of merchandise,
- B. reflect the movement of goods into and out of (1) the 50 states, the District of Columbia, Puerto Rico, the U. S. Virgin Islands and (2) U.S. Foreign Trade Zones,
- C. exclude (1) shipments between U. S., Puerto Rico, and U. S. possessions, (2) shipments to U. S. Armed Forces and diplomatic missions abroad for their own use, (3) U.S. goods returned to the U. S. by its Armed Forces and (4) in-transit shipments.

MONTHLY RELEASE SCHEDULE

ISSUE	DATE	DAY
January	3-17-88	Thursday
February	4-14-88	Thursday
March	5-17-88	Tuesday
April	6-14-88	Tuesday
May	7-15-88	Friday
June	8-16-88	Tuesday
July	9-14-88	Wednesday
August	10-13-88	Thursday
September	11-16-88	Wednesday
October	12-14-88	Wednesday
*November	1-18-89	Wednesday
December	2-17-89	Friday

MONTHLY "CARRY-OVER" AND REVISION POLICY

"Carry-over" is a portion of the monthly statistics received too late for inclusion in the transaction month. Therefore, monthly data include the actual month's transactions and a small "carry-over" for previous months.

In April 1988, the Census Bureau began revising the aggregate seasonally adjusted and unadjusted export, import and trade balance figures as well as the "end-use" totals for the prior month. SITC and country detail data are not revised.

The timing adjustments shown in Exhibits 8-1 through 11-2, 14 and 15 refer to the difference between carry-over as originally reported and as recomputed.

VALUATION

Import data are (1) Customs import and (2) C.I.F. import value. Export data are f.a.s. value. All are explained below.

1. Customs Import Value - is the U.S. Customs Service appraised value of merchandise; generally, the price paid for merchandise for export to the U. S. Import duties, freight, insurance, and other charges incurred in bringing merchandise to the United States are excluded.

2. C.I.F. Import Value - is Customs value (defined above) plus freight, insurance, and other charges (excluding U. S. import duties) incurred in bringing merchandise from the exporting country to the first port of arrival in the United States.

3. F.a.s. Export Value - is f.a.s. (free alongside ship) value of merchandise at the U. S. port of export, based on transaction price including inland freight, insurance, and other charges incurred in placing the merchandise alongside the carrier at the U.S. port of exportation.

* Change. Previously announced as 1-13-89.

COMMODITY INFORMATION

Adjusted for Seasonal and Working-Day Variations

Commodities exported and imported through U. S. trade channels are initially classified under Schedule B and Tariff Schedules of the United States Annotated (TSUSA) commodity classification systems. Both classification systems provide for describing and measuring the characteristics of commodities traded. Combining trade data into broad "end-use" categories makes it possible to examine commodities according to their principal uses. "End-use" categories are: (1) Foods, feeds and beverages; (2) Industrial supplies and materials; (3) Capital goods except automotive; (4) Automotive vehicles, parts and engines; (5) Consumer goods (nonfood) except automotive; and (6) Other merchandise, such as military goods, estimates of low-valued shipments, etc. These "end-use" categories were used as the basis for computing the seasonal and/or working-day adjusted export and import data presented in Exhibits 1 through 7 and 16 of this report. Overall seasonally adjusted export and import totals are derived by adding the six "end-use" categories. Not seasonally adjusted "end-use" categories are shown for comparison in Exhibits 5, 6, and 7.

The seasonally adjusted three-month moving averages for imports, exports and trade balances (Exhibit 16) are computed by summing the subject month, the two prior months, dividing by 3, and plotting at the subject month. These averages are made available as an analytical tool to aid in trend analyses and should be used as such. The selection of a three-month time frame to compute the moving averages is arbitrary; any combination of months can be used.

Not Adjusted for Seasonal and Working-Day Variations

Commodity data appearing in Exhibits 8-1 to 10 are classified in terms of Schedule E (exports) and Schedule A (imports), both of which are based on the Standard International Trade Classification (SITC) Revision 2 and arranged by principal commodity groupings (e.g., agricultural commodities; manufactured goods) to facilitate analysis. Export and import SITC section totals are presented in Exhibits 11-1 and 11-2.

Agricultural commodities consist of non-marine food products and other products of agriculture which have not passed through complex processes of manufacture, such as raw hides and skins, fats and oils, and wine.

Manufactured goods conform to the SITC, Revision 2 Classification sections that include chemicals and related products, M. S. P. F.; manufactured goods classified chiefly by material; machinery and transport equipment; and miscellaneous manufactured articles, M. S. P. F.

Reexports are foreign merchandise entering the country as imports and which at the time of exportation are in substantially the same condition as when imported. Reexports, included in overall export totals, appear as separate line items in Exhibits 8-1 through 11-2.

ADDITIONAL INFORMATION SOURCES

Additional data and information regarding coverage, valuation, estimating procedures, and qualifications are obtainable from the following:

1. Report FT990, Highlights of U.S. Export and Import Merchandise Trade;
2. The Guide to Foreign Trade Statistics.
3. Foreign Trade Division, Bureau of the Census, Washington, D. C. 20233.

An electronic version of FT900 is available through CENDATA, the Census Bureau's on-line information facility. Contact Customer Services, DUSD, Bureau of Census, Washington, D. C. 20233 or call 301-763-4100.

EXHIBIT 1. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (C.I.F. VALUE), AND MERCHANDISE TRADE BALANCE,
SEASONALLY ADJUSTED AND NOT SEASONALLY ADJUSTED: JANUARY 1986 TO OCTOBER 1988

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
(R) - Revised.

PERIOD	TRADE BALANCE		EXPORTS, F.A.S. VALUE		GENERAL IMPORTS, C.I.F. VALUE	
	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED
1986						
JANUARY-DECEMBER.....	-155,136.9	-155,136.9	227,158.5	227,158.5	382,295.4	382,295.4
JANUARY-OCTOBER.....	-127,736.5	-128,528.0	188,608.7	188,386.4	316,345.2	316,914.4
JANUARY.....	-13,397.9	-13,520.1	18,557.1	17,605.3	31,955.0	31,125.4
FEBRUARY.....	-11,269.6	-10,240.1	18,520.1	18,052.8	29,789.7	28,292.9
MARCH.....	-12,711.0	-11,294.8	17,998.8	19,426.6	30,709.8	30,721.4
APRIL.....	-13,112.6	-13,000.7	18,761.6	19,038.7	31,874.2	32,039.4
MAY.....	-11,994.6	-12,070.7	19,022.9	19,471.2	31,017.5	31,541.9
JUNE.....	-11,526.3	-11,602.5	20,037.7	20,496.7	31,564.0	32,099.2
JULY.....	-12,808.3	-14,606.2	19,730.8	18,829.4	32,539.1	33,435.6
AUGUST.....	-13,557.4	-13,602.5	17,969.8	17,323.2	31,527.2	30,925.7
SEPTEMBER.....	-14,650.4	-14,613.0	18,281.8	17,785.3	32,932.2	32,398.3
OCTOBER.....	-12,708.4	-13,977.4	19,728.1	20,357.2	32,436.5	34,334.6
NOVEMBER.....	-14,656.2	-14,583.8	19,294.9	19,354.7	33,951.0	33,938.5
DECEMBER.....	-12,744.4	-12,025.1	19,254.8	19,417.4	31,999.2	31,442.5
1987						
JANUARY-DECEMBER.....	-170,320.2	-170,320.2	254,121.9	254,121.9	424,442.1	424,442.1
JANUARY-OCTOBER.....	-142,900.5	-143,834.3	206,874.6	206,528.8	349,775.1	350,363.1
JANUARY.....	-14,733.0	-14,821.1	18,400.4	17,345.9	33,133.4	32,167.0
FEBRUARY.....	-13,526.5	-12,270.3	19,328.0	18,853.9	32,854.5	31,124.2
MARCH.....	-13,824.3	-12,091.1	20,172.0	21,835.5	33,996.3	33,926.6
APRIL.....	-13,236.8	-13,100.2	20,402.3	20,677.7	33,639.1	33,777.9
MAY.....	-14,074.4	-13,912.8	20,262.3	20,759.5	34,336.7	34,672.3
JUNE.....	-15,058.1	-15,290.8	21,107.5	21,636.7	36,165.6	36,927.5
JULY.....	-13,878.2	-16,076.1	22,432.9	21,379.0	36,311.1	37,455.1
AUGUST.....	-15,078.1	-15,309.8	20,884.1	20,079.1	35,962.2	35,388.9
SEPTEMBER.....	-13,935.0	-13,975.4	21,810.3	21,183.7	35,745.3	35,159.1
OCTOBER.....	-15,556.1	-16,986.7	22,074.8	22,777.8	37,630.9	39,764.5
NOVEMBER.....	-13,622.4	-13,460.0	23,094.9	23,278.7	36,717.3	36,738.7
DECEMBER.....	-13,797.2	-13,025.9	24,152.5	24,314.4	37,949.7	37,340.3
1988						
JANUARY-OCTOBER.....	-113,432.3	-114,348.5	265,342.6	264,900.4	378,774.9	379,248.9
JANUARY.....	-11,271.2	-11,532.6	24,488.2	22,990.1	35,759.4	34,522.7
FEBRUARY.....	-14,414.6	-12,994.3	24,518.3	24,138.6	38,932.9	37,132.9
MARCH.....	-11,703.0	-9,527.6	26,877.0	29,105.7	38,580.0	38,633.3
APRIL.....	-10,304.2	-10,192.8	26,028.6	26,334.9	36,332.8	36,527.7
MAY.....	-9,761.6	-9,514.2	27,478.4	28,142.6	37,240.0	37,656.8
JUNE.....	-13,215.5	-13,319.2	26,283.2	26,838.8	39,498.7	40,158.0
JULY.....	-9,472.9	-11,985.5	26,515.6	25,098.2	35,988.5	37,083.7
AUGUST.....	-12,269.6	-12,831.8	27,493.0	26,538.1	39,762.6	39,369.9
SEPTEMBER(R).....	-10,672.8	-10,698.1	27,988.8	27,236.6	38,661.6	37,934.7
OCTOBER.....	-10,346.9	-11,752.4	27,671.5	28,476.8	38,018.4	40,229.2

EXHIBIT 2. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (CUSTOMS VALUES), AND MERCHANDISE TRADE BALANCE, SEASONALLY ADJUSTED AND NOT SEASONALLY ADJUSTED: JANUARY 1986 TO OCTOBER 1988

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
(R) - Revised.

PERIOD	TRADE BALANCE		EXPORTS, F.A.S. VALUE		GENERAL IMPORTS, CUSTOMS VALUE	
	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED	SEASONALLY ADJUSTED	NOT SEASONALLY ADJUSTED
1986						
JANUARY-DECEMBER.....	-138,279.2	-138,279.2	227,158.5	227,158.5	365,437.7	365,437.7
JANUARY-OCTOBER.....	-113,400.9	-114,516.2	188,608.7	188,386.4	302,009.6	302,902.6
JANUARY.....	-12,042.9	-12,165.8	18,557.1	17,605.3	30,600.0	29,771.1
FEBRUARY.....	-10,346.4	-9,027.6	18,520.1	18,052.8	28,866.5	27,080.4
MARCH.....	-11,125.3	-9,960.9	17,998.8	19,426.6	29,124.1	29,387.5
APRIL.....	-11,525.2	-11,618.0	18,761.6	19,038.7	30,286.8	30,656.7
MAY.....	-10,367.2	-10,705.9	19,022.9	19,471.2	29,390.1	30,177.1
JUNE.....	-9,922.5	-10,212.7	20,037.7	20,496.7	29,960.2	30,709.4
JULY.....	-11,238.4	-13,055.9	19,730.8	18,829.4	30,969.2	31,885.3
AUGUST.....	-12,152.6	-12,156.4	17,969.8	17,323.2	30,122.4	29,479.6
SEPTEMBER.....	-13,455.7	-13,143.5	18,281.8	17,785.3	31,737.5	30,928.8
OCTOBER.....	-11,224.7	-12,469.5	19,728.1	20,357.2	30,952.8	32,826.7
NOVEMBER.....	-13,370.7	-13,140.5	19,294.9	19,354.7	32,665.6	32,495.2
DECEMBER.....	-11,507.6	-10,622.5	19,254.8	19,417.4	30,762.4	30,039.9
1987						
JANUARY-DECEMBER.....	-152,119.0	-152,119.0	254,121.9	254,121.9	406,241.0	406,241.0
JANUARY-OCTOBER.....	-127,463.9	-128,742.6	206,874.6	206,528.8	334,338.5	335,271.4
JANUARY.....	-13,265.2	-13,452.6	18,400.4	17,345.9	31,665.6	30,798.5
FEBRUARY.....	-12,497.1	-10,956.4	19,328.0	18,853.9	31,825.1	29,810.3
MARCH.....	-12,099.3	-10,628.8	20,172.0	21,835.5	32,271.3	32,464.3
APRIL.....	-11,575.9	-11,613.4	20,402.3	20,677.7	31,978.2	32,291.1
MAY.....	-12,251.3	-12,410.5	20,262.3	20,759.5	32,513.6	33,170.0
JUNE.....	-13,310.6	-13,721.3	21,107.5	21,636.7	34,418.1	35,358.0
JULY.....	-12,192.5	-14,430.9	22,432.9	21,379.0	34,625.4	35,809.9
AUGUST.....	-13,608.2	-13,747.1	20,884.1	20,079.1	34,492.3	33,826.2
SEPTEMBER.....	-12,772.1	-12,483.8	21,810.3	21,183.7	34,582.4	33,667.5
OCTOBER.....	-13,891.7	-15,297.8	22,074.8	22,777.8	35,966.5	38,075.6
NOVEMBER.....	-12,221.2	-11,932.2	23,094.9	23,278.7	35,316.1	35,210.9
DECEMBER.....	-12,433.9	-11,444.3	24,152.5	24,314.4	36,586.4	35,758.7
1988						
JANUARY-OCTOBER.....	-98,194.4	-98,925.0	265,342.6	264,900.4	363,537.0	363,825.4
JANUARY.....	-9,769.4	-10,005.0	24,488.2	22,990.1	34,257.6	32,995.1
FEBRUARY.....	-13,210.7	-11,430.4	24,518.3	24,138.6	37,729.0	35,569.0
MARCH.....	-9,766.7	-7,924.3	26,877.0	29,105.7	36,643.7	37,030.0
APRIL.....	-8,796.4	-8,692.0	26,028.6	26,334.9	34,825.0	35,026.9
MAY.....	-8,253.3	-8,004.3	27,478.4	28,142.6	35,731.7	36,146.9
JUNE.....	-11,665.2	-11,750.7	26,283.2	26,838.8	37,948.4	38,589.5
JULY.....	-8,017.3	-10,484.7	26,515.6	25,098.2	34,532.9	35,582.9
AUGUST.....	-10,646.7	-11,203.0	27,493.0	26,538.1	38,139.7	37,741.1
SEPTEMBER(R).....	-9,189.3	-9,222.5	27,988.8	27,236.6	37,178.1	36,459.1
OCTOBER.....	-8,879.4	-10,208.1	27,671.5	28,476.8	36,550.9	38,684.9

EXHIBIT 3. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (C.I.F. VALUE), AND MERCHANDISE TRADE BALANCE, SEASONALLY ADJUSTED AND NOT SEASONALLY ADJUSTED: NOV. 1986 TO OCT. 1988

(Merchandise trade balance is shown as a deficit)

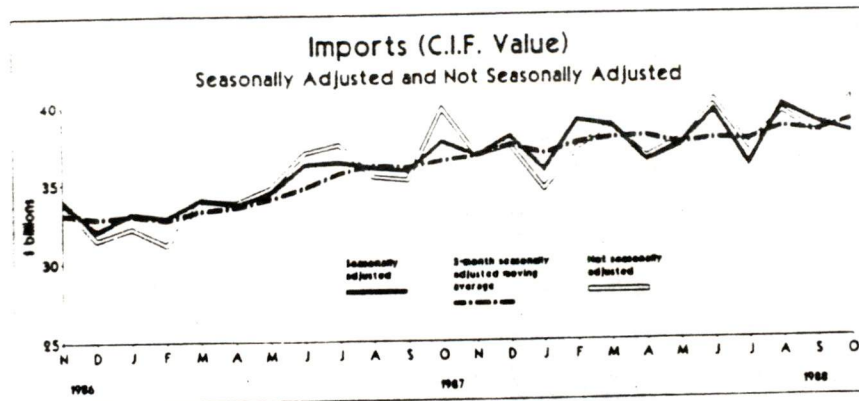
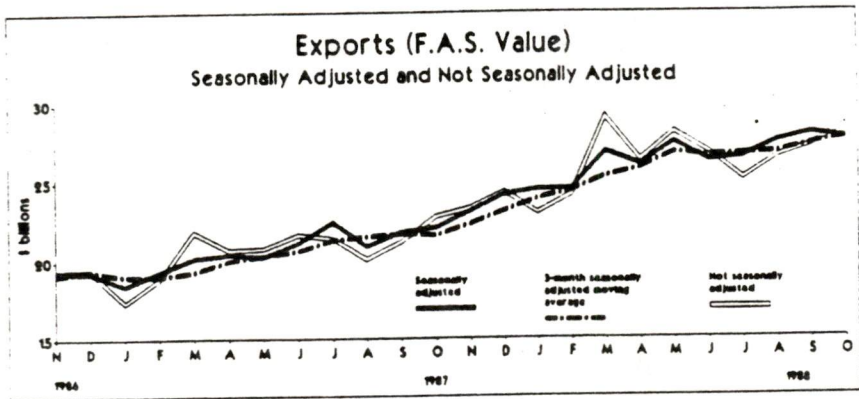
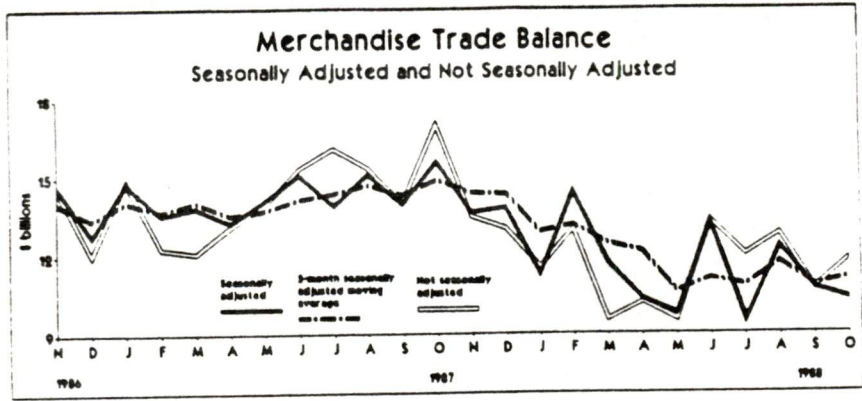


EXHIBIT 4. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (CUSTOMS VALUE), AND MERCHANDISE TRADE BALANCE, SEASONALLY ADJUSTED AND NOT SEASONALLY ADJUSTED: NOV. 1986 TO OCT. 1988

(Merchandise trade balance is shown as a deficit)

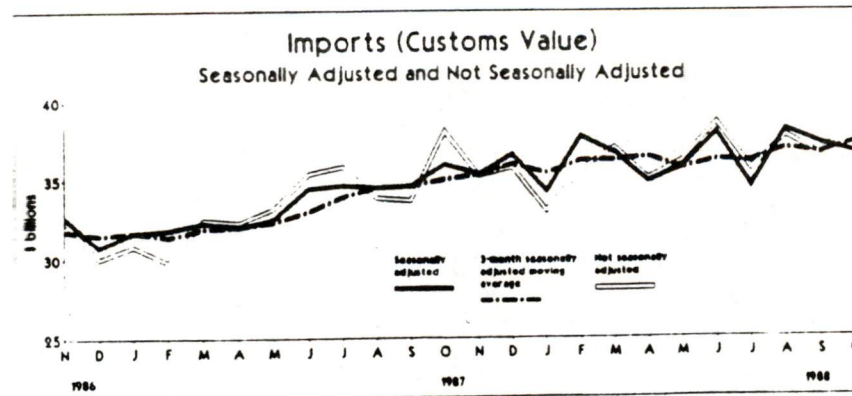
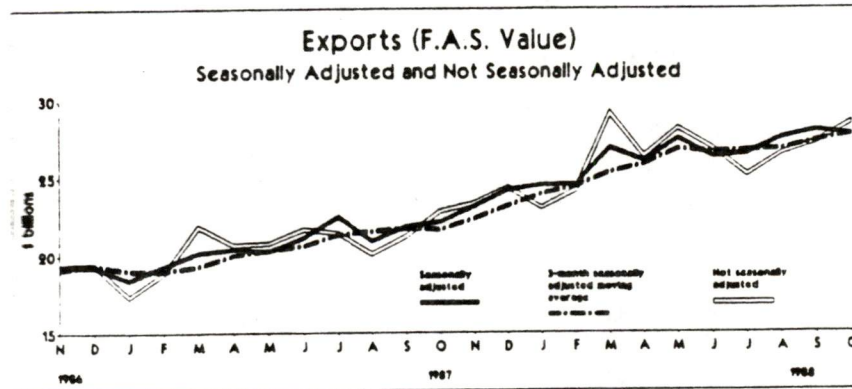
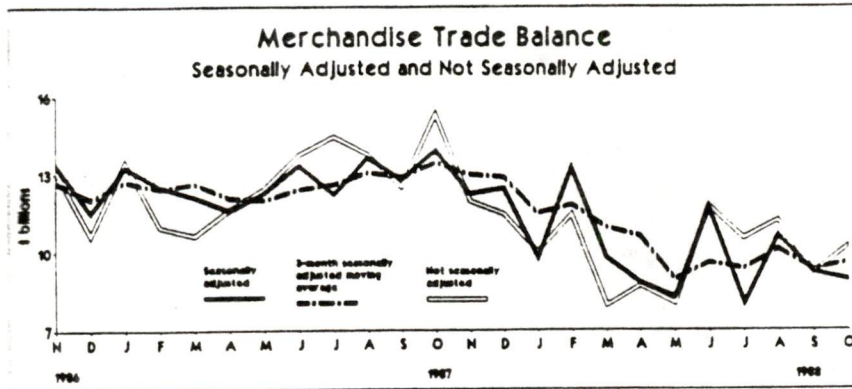


EXHIBIT 5. EXPORTS (F.A.S. VALUE) BY PRINCIPAL END-USE COMMODITY CATEGORY, SEASONALLY ADJUSTED
AND NOT SEASONALLY ADJUSTED: JANUARY 1987 TO OCTOBER 1988

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
(R) - Revised.

PERIOD	TOTAL	PRINCIPAL END-USE COMMODITY CATEGORY					
		FOODS, FEEDS AND BEVERAGES	INDUSTRIAL SUPPLIES AND MATERIALS	CAPITAL GOODS, EXCEPT AUTOMOTIVE	AUTOMOTIVE VEHICLES, PARTS AND ENGINES	CONSUMER GOODS (NONFOOD), EXCEPT AUTOMOTIVE	OTHER MERCHAN- DISE (1)
Seasonally adjusted							
1987							
JAN.-DEC.....	254,121.9	24,254.7	66,720.1	86,227.7	24,632.1	17,677.6	34,609.7
JAN.-OCT.....	206,874.6	20,367.3	54,065.6	69,963.5	19,794.0	14,509.3	28,174.9
JANUARY.....	18,400.4	1,689.0	5,088.0	6,186.0	1,855.9	1,298.3	2,283.2
FEBRUARY.....	19,328.0	1,730.3	4,939.9	6,573.1	1,943.0	1,316.9	2,824.8
MARCH.....	20,172.0	1,846.0	5,313.3	6,768.9	1,917.5	1,389.2	2,937.1
APRIL.....	20,402.3	1,853.1	5,499.7	6,861.6	1,878.9	1,399.2	2,909.8
MAY.....	20,262.3	2,011.4	5,433.1	6,836.6	1,915.6	1,469.2	2,596.4
JUNE.....	21,107.5	2,101.2	5,535.2	6,536.4	2,155.2	1,478.9	3,300.6
JULY.....	22,432.9	2,384.8	5,592.1	7,643.0	1,868.1	1,552.9	3,392.0
AUGUST.....	20,884.1	2,201.0	5,571.0	7,047.3	2,024.3	1,467.6	2,572.9
SEPTEMBER.....	21,810.3	2,247.9	5,606.2	8,041.0	2,115.8	1,616.2	2,183.2
OCTOBER.....	22,074.8	2,302.6	5,487.1	7,469.6	2,119.7	1,520.9	3,174.9
NOVEMBER.....	23,094.9	1,845.3	6,146.6	8,084.9	2,496.2	1,559.5	2,962.4
DECEMBER.....	24,152.5	2,041.9	6,507.9	8,179.6	2,341.9	1,608.8	3,472.4
1988							
JAN.-OCT.....	265,342.6	27,199.8	70,386.7	89,825.2	24,051.0	18,871.3	35,008.1
JANUARY.....	24,488.2	2,216.9	6,647.7	8,738.6	2,141.5	1,611.6	3,131.9
FEBRUARY.....	24,518.3	2,525.8	6,637.2	8,573.3	2,392.4	1,779.6	2,610.0
MARCH.....	26,877.0	2,576.7	7,688.3	8,719.0	2,690.6	1,797.8	3,404.5
APRIL.....	26,028.6	2,557.9	7,312.4	8,796.4	2,349.1	1,772.5	3,240.4
MAY.....	27,478.4	2,927.3	7,144.1	9,251.3	2,424.3	1,923.9	3,807.4
JUNE.....	26,283.2	2,665.8	7,019.5	8,464.8	2,212.2	1,928.8	3,992.2
JULY.....	26,515.6	2,871.0	7,126.9	9,101.0	2,015.4	1,959.7	3,441.6
AUGUST.....	27,493.0	3,059.1	6,896.2	9,379.8	2,776.5	2,030.0	3,351.2
SEPTEMBER(R).....	27,988.8	3,026.7	7,333.3	9,394.9	2,551.3	2,125.9	3,556.6
OCTOBER.....	27,671.5	2,772.6	6,581.1	9,406.1	2,497.7	1,941.5	4,472.3
Not seasonally adjusted							
1987							
JAN.-DEC.....	254,121.9	24,254.7	66,720.1	86,227.7	24,632.1	17,677.6	34,609.7
JAN.-OCT.....	206,528.8	19,833.0	54,007.0	69,878.3	20,058.1	14,577.4	28,174.9
JANUARY.....	17,345.9	1,734.9	4,769.4	5,543.3	1,802.6	1,212.5	2,283.2
FEBRUARY.....	18,853.9	1,801.2	4,706.6	6,267.1	1,999.5	1,254.8	2,824.8
MARCH.....	21,835.5	1,975.0	5,633.6	7,645.9	2,114.2	1,529.7	2,937.1
APRIL.....	20,677.7	1,839.1	5,472.4	7,004.6	2,047.7	1,404.1	2,909.8
MAY.....	20,759.5	1,820.2	5,626.1	6,986.7	2,186.5	1,543.6	2,596.4
JUNE.....	21,636.7	1,832.4	5,655.8	6,936.3	2,375.6	1,536.0	3,300.6
JULY.....	21,379.0	2,239.1	5,364.7	7,353.7	1,562.4	1,467.1	3,392.0
AUGUST.....	20,079.1	1,996.9	5,639.2	6,783.5	1,623.2	1,463.4	2,572.9
SEPTEMBER.....	21,183.7	2,101.1	5,549.9	7,621.2	2,172.9	1,555.4	2,183.2
OCTOBER.....	22,777.8	2,493.1	5,589.3	7,736.0	2,173.5	1,610.8	3,174.9
NOVEMBER.....	23,278.7	2,178.7	6,073.1	7,931.4	2,564.8	1,568.3	2,962.4
DECEMBER.....	24,314.4	2,243.0	6,640.0	8,418.0	2,009.2	1,531.9	3,472.4
1988							
JAN.-OCT.....	264,900.4	26,369.5	70,550.1	89,673.5	24,342.1	18,957.3	35,008.1
JANUARY.....	22,990.1	2,270.1	6,179.6	7,817.5	2,088.6	1,502.4	3,131.9
FEBRUARY.....	24,138.6	2,620.2	6,572.6	8,174.7	2,466.1	1,695.1	2,610.0
MARCH.....	29,105.7	2,741.9	8,181.2	9,847.2	2,951.0	1,979.9	3,404.5
APRIL.....	26,334.9	2,529.0	7,244.5	8,989.0	2,556.0	1,776.0	3,240.4
MAY.....	28,142.6	2,630.8	7,471.1	9,451.1	2,757.9	2,024.4	3,807.4
JUNE.....	26,838.8	2,309.6	7,122.1	8,968.4	2,443.9	2,002.7	3,992.2
JULY.....	25,098.2	2,694.7	6,699.0	8,736.0	1,678.2	1,848.6	3,441.6
AUGUST.....	26,538.1	2,767.3	7,135.7	9,039.4	2,217.4	2,027.2	3,351.2
SEPTEMBER(R).....	27,236.6	2,811.8	7,305.2	8,896.0	2,624.3	2,042.6	3,556.6
OCTOBER.....	28,476.8	2,994.1	6,639.1	9,754.2	2,558.7	2,058.4	4,472.3

(1) Includes military type goods, estimates of low-valued shipments, adjustment for undocumented exports to Canada and reexports.

EXHIBIT 6. GENERAL IMPORTS (C.I.F. VALUE) BY PRINCIPAL END-USE COMMODITY CATEGORY, SEASONALLY ADJUSTED AND NOT SEASONALLY ADJUSTED: JANUARY 1987 TO OCTOBER 1988

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
(R) - Revised.

PERIOD	TOTAL	PRINCIPAL END-USE COMMODITY CATEGORY					
		FOODS, FEEDS AND BEVERAGES	INDUSTRIAL SUPPLIES AND MATERIALS	CAPITAL GOODS, EXCEPT AUTOMOTIVE	AUTOMOTIVE VEHICLES, PARTS AND ENGINES	CONSUMER GOODS (NONFOOD), EXCEPT AUTOMOTIVE	OTHER MERCHANDISE (1)
Seasonally adjusted							
1987							
JAN.-DEC.....	424,442.1	26,848.7	117,293.8	86,992.1	87,478.6	93,632.1	12,196.8
JAN.-OCT.....	349,775.1	22,383.1	96,859.6	70,877.9	72,231.7	77,278.5	10,144.4
JANUARY.....	33,133.4	2,242.1	8,928.5	6,376.0	7,095.6	7,485.1	1,006.1
FEBRUARY.....	32,854.5	2,025.9	8,442.9	6,654.7	7,456.9	7,434.7	839.4
MARCH.....	33,996.3	2,321.0	9,236.2	6,907.4	6,819.3	7,661.5	1,051.0
APRIL.....	33,639.1	2,247.4	8,757.5	6,853.4	7,010.7	7,819.9	950.2
MAY.....	34,336.7	2,147.7	9,616.9	6,810.5	7,068.9	7,599.8	1,093.0
JUNE.....	36,165.6	2,368.9	9,847.1	7,555.4	7,345.9	8,090.8	957.4
JULY.....	36,311.1	2,260.6	10,836.7	7,168.9	7,260.0	7,824.9	960.0
AUGUST.....	35,962.2	2,117.4	10,518.4	7,311.2	7,234.5	7,821.4	959.4
SEPTEMBER.....	35,745.3	2,181.4	9,709.7	7,640.2	7,302.8	7,803.0	1,108.1
OCTOBER.....	37,630.9	2,470.7	10,965.7	7,600.2	7,637.1	7,737.4	1,219.8
NOVEMBER.....	36,717.3	2,260.9	10,285.5	7,859.0	7,460.2	7,862.3	989.3
DECEMBER.....	37,949.7	2,204.7	10,148.7	8,255.2	7,786.6	8,491.4	1,063.1
1988							
JAN.-OCT.....	378,774.9	22,295.6	104,208.0	85,279.7	73,981.8	82,524.2	10,485.2
JANUARY.....	35,759.4	2,324.5	10,145.5	7,627.0	6,920.5	7,798.1	943.8
FEBRUARY.....	38,932.9	2,372.2	10,089.9	8,977.2	7,716.3	8,818.8	958.4
MARCH.....	38,580.0	2,402.9	10,523.1	8,630.9	7,662.7	8,239.8	1,120.5
APRIL.....	36,332.8	2,169.9	10,095.4	8,063.4	7,325.9	7,685.2	992.9
MAY.....	37,240.0	2,162.5	11,075.4	8,356.8	6,679.5	7,999.0	966.8
JUNE.....	39,498.7	2,072.4	10,789.2	9,257.0	7,546.6	8,701.7	1,131.8
JULY.....	35,988.5	2,044.7	10,311.1	7,970.9	6,753.1	7,818.0	1,090.7
AUGUST.....	39,762.6	2,359.4	10,862.4	9,120.4	7,451.4	8,862.0	1,106.9
SEPTEMBER(R).....	38,661.6	2,130.1	9,953.6	8,951.5	8,037.3	8,494.2	1,094.9
OCTOBER.....	38,018.4	2,257.0	10,362.4	8,324.6	7,888.5	8,107.4	1,078.5
Not seasonally adjusted							
1987							
JAN.-DEC.....	424,442.1	26,848.7	117,293.8	86,992.1	87,478.6	93,632.1	12,196.8
JAN.-OCT.....	350,363.1	22,383.1	96,843.1	70,816.5	71,806.0	78,369.9	10,144.4
JANUARY.....	32,167.0	2,242.1	8,934.6	6,021.2	6,871.0	7,092.0	1,006.1
FEBRUARY.....	31,124.2	2,025.9	8,396.8	5,943.6	7,144.8	6,773.6	839.4
MARCH.....	33,926.6	2,321.0	9,214.8	7,174.1	6,940.3	7,225.4	1,051.0
APRIL.....	33,777.9	2,247.4	8,792.7	7,027.0	7,454.7	7,306.0	950.2
MAY.....	34,672.3	2,147.7	9,442.2	6,809.6	7,854.5	7,325.3	1,093.0
JUNE.....	36,927.5	2,368.9	9,995.9	7,661.6	7,751.0	8,192.7	957.4
JULY.....	37,455.1	2,260.6	10,851.6	7,613.9	6,789.9	8,979.1	960.0
AUGUST.....	35,388.9	2,117.4	10,457.4	7,069.4	6,437.6	8,347.7	959.4
SEPTEMBER.....	35,159.1	2,181.4	9,784.7	7,408.9	6,510.1	8,165.8	1,108.1
OCTOBER.....	39,764.5	2,470.7	10,972.4	8,087.2	8,052.1	8,962.3	1,219.8
NOVEMBER.....	36,738.7	2,260.9	10,205.0	7,613.2	7,923.8	7,746.6	989.3
DECEMBER.....	37,340.3	2,204.7	10,245.7	8,562.4	7,748.8	7,515.6	1,063.1
1988							
JAN.-OCT.....	379,248.9	22,295.6	104,298.1	85,118.0	73,458.7	83,593.5	10,485.2
JANUARY.....	34,522.7	2,324.5	9,955.5	7,201.5	6,701.8	7,395.7	943.8
FEBRUARY.....	37,132.9	2,372.2	10,358.7	8,023.8	7,387.6	8,032.1	958.4
MARCH.....	38,633.3	2,402.9	10,628.5	8,961.5	7,765.4	7,754.5	1,120.5
APRIL.....	36,527.7	2,169.9	10,084.7	8,296.5	7,790.4	7,193.3	992.9
MAY.....	37,656.8	2,162.5	11,046.9	8,358.5	7,414.2	7,707.9	966.8
JUNE.....	40,158.0	2,072.4	10,829.9	9,389.4	7,939.8	8,794.8	1,131.8
JULY.....	37,083.7	2,044.7	10,110.5	8,504.1	6,334.4	8,999.3	1,090.7
AUGUST.....	39,369.9	2,359.4	11,054.7	8,788.5	6,629.5	9,430.9	1,106.9
SEPTEMBER(R).....	37,934.7	2,130.1	9,944.3	8,703.5	7,168.5	8,893.4	1,094.9
OCTOBER.....	40,229.2	2,257.0	10,284.4	8,890.7	8,327.1	9,391.6	1,078.5

(1) Includes military type goods, estimates of low-valued shipments, and U. S. goods returned.

EXHIBIT 7. GENERAL IMPORTS (CUSTOMS VALUE) BY PRINCIPAL END-USE COMMODITY CATEGORY, SEASONALLY ADJUSTED
AND NOT SEASONALLY ADJUSTED: JANUARY 1987 TO OCTOBER 1988

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures. (R) - Revised.

PERIOD	TOTAL	PRINCIPAL END-USE COMMODITY CATEGORY					
		FOODS, FEEDS AND BEVERAGES	INDUSTRIAL SUPPLIES AND MATERIALS	CAPITAL GOODS, EXCEPT AUTOMO- TIVE	AUTOMOTIVE VEHICLES, PARTS AND ENGINES	CONSUMER GOODS (NONFOOD), EXCEPT AUTOMOTIVE	OTHER MERCHANDISE (1)
Seasonally adjusted							
1987							
JAN.-DEC....	406,241.0	24,769.1	111,030.2	84,495.1	85,167.7	88,719.8	12,059.1
JAN.-OCT....	334,338.5	20,629.9	91,319.3	68,841.4	70,329.3	73,188.5	10,030.1
JANUARY.....	31,665.6	2,074.8	8,387.5	6,195.9	6,910.9	7,098.3	998.2
FEBRUARY....	31,825.1	1,860.3	8,358.3	6,462.6	7,276.5	7,038.3	829.1
MARCH.....	32,271.3	2,129.8	8,502.0	6,706.9	6,647.3	7,245.8	1,039.5
APRIL.....	31,978.2	2,060.8	8,125.1	6,648.6	6,825.1	7,378.9	939.7
MAY.....	32,513.6	1,977.4	8,759.5	6,609.8	6,886.2	7,197.8	1,082.9
JUNE.....	34,418.1	2,189.2	9,128.5	7,336.2	7,152.0	7,670.5	941.7
JULY.....	34,625.4	2,081.6	10,163.3	6,965.4	7,048.0	7,418.6	948.5
AUGUST.....	34,492.3	1,954.8	10,067.6	7,101.8	7,020.2	7,400.2	947.7
SEPTEMBER...	34,582.4	2,015.9	9,523.6	7,425.5	7,123.3	7,398.4	1,095.7
OCTOBER.....	35,966.5	2,285.3	10,303.9	7,388.7	7,439.8	7,341.7	1,207.1
NOVEMBER....	35,316.1	2,089.9	9,882.3	7,633.7	7,270.0	7,462.0	978.2
DECEMBER....	36,586.4	2,049.3	9,828.5	8,019.9	7,568.6	8,069.3	1,050.8
1988							
JAN.-OCT....	363,537.0	20,559.9	98,460.7	83,058.6	72,310.2	78,795.8	10,351.9
JANUARY.....	34,257.6	2,131.7	9,458.3	7,490.6	6,760.6	7,489.5	926.8
FEBRUARY....	37,729.0	2,185.5	10,000.7	8,614.2	7,599.1	8,388.4	941.2
MARCH.....	36,643.7	2,202.7	9,612.3	8,402.9	7,475.0	7,842.9	1,107.9
APRIL.....	34,825.0	1,990.8	9,514.1	7,859.8	7,156.0	7,324.2	980.1
MAY.....	35,731.7	1,996.7	10,463.4	8,143.6	6,533.2	7,639.2	955.7
JUNE.....	37,948.4	1,912.4	10,204.3	9,022.5	7,379.2	8,311.8	1,118.2
JULY.....	34,532.9	1,885.3	9,738.2	7,775.8	6,583.2	7,472.1	1,078.4
AUGUST.....	38,139.7	2,183.9	10,249.8	8,896.4	7,258.0	8,457.1	1,094.5
SEPTEMBER(R)	37,178.1	1,974.5	9,406.4	8,736.5	7,860.2	8,117.2	1,083.3
OCTOBER.....	36,550.9	2,096.4	9,813.2	8,116.3	7,705.7	7,753.4	1,065.8
Not seasonally adjusted							
1987							
JAN.-DEC....	406,241.0	24,769.1	111,030.2	84,495.1	85,167.7	88,719.8	12,059.1
JAN.-OCT....	335,271.4	20,629.9	91,694.9	68,780.8	69,916.6	74,219.1	10,030.1
JANUARY.....	30,798.5	2,074.8	8,461.9	5,850.9	6,693.4	6,719.3	998.2
FEBRUARY....	29,810.3	1,860.3	7,968.6	5,772.0	6,972.8	6,407.5	829.1
MARCH.....	32,464.3	2,129.8	8,733.1	6,966.0	6,766.0	6,829.9	1,039.5
APRIL.....	32,291.1	2,060.8	8,324.8	6,816.6	7,257.4	6,891.8	939.7
MAY.....	33,170.0	1,977.4	8,912.9	6,608.3	7,651.4	6,937.1	1,082.9
JUNE.....	35,358.0	2,189.2	9,474.4	7,439.9	7,546.0	7,766.8	941.7
JULY.....	35,809.9	2,081.6	10,276.8	7,397.9	6,591.0	8,514.1	948.5
AUGUST.....	33,826.2	1,954.8	9,910.5	6,866.4	6,246.6	7,900.2	947.7
SEPTEMBER...	33,667.5	2,015.9	9,261.1	7,200.5	6,349.1	7,745.2	1,095.7
OCTOBER.....	38,075.6	2,285.3	10,370.8	7,862.3	7,842.9	8,507.2	1,207.1
NOVEMBER....	35,210.9	2,089.9	9,671.6	7,395.1	7,720.5	7,355.6	978.2
DECEMBER....	35,758.7	2,049.3	9,663.7	8,319.2	7,530.6	7,145.1	1,050.8
1988							
JAN.-OCT....	363,825.4	20,559.9	98,475.3	82,887.9	71,734.0	79,816.2	10,351.9
JANUARY.....	32,995.1	2,131.7	9,288.3	7,047.2	6,507.8	7,093.3	926.8
FEBRUARY....	35,569.0	2,185.5	9,859.9	7,700.2	7,240.4	7,641.8	941.2
MARCH.....	37,030.0	2,202.7	10,027.9	8,725.6	7,583.4	7,382.5	1,107.9
APRIL.....	35,026.9	1,990.8	9,504.0	8,086.9	7,609.7	6,855.4	980.1
MAY.....	36,146.9	1,996.7	10,436.3	8,145.2	7,251.8	7,361.1	955.7
JUNE.....	38,589.5	1,912.4	10,243.0	9,151.5	7,763.7	8,400.7	1,118.2
JULY.....	35,582.9	1,885.3	9,547.1	8,296.0	6,175.0	8,601.1	1,078.4
AUGUST.....	37,741.1	2,183.9	10,432.6	8,572.6	6,457.5	9,000.0	1,094.5
SEPTEMBER(R)	36,459.1	1,974.5	9,397.5	8,494.5	7,010.5	8,498.8	1,033.3
OCTOBER.....	38,684.9	2,096.4	9,738.7	8,668.2	8,134.2	8,981.5	1,065.8

(1) Includes military type goods, estimates of low-valued shipments, and U. S. goods returned.

EXHIBIT B-1. SUMMARY OF CHANGES IN EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (C.I.F. VALUE) AND MERCHANDISE TRADE BALANCE BY COMMODITY GROUPING, COUNTRY, ECONOMIC AND GEOGRAPHIC AREA, NOT SEASONALLY ADJUSTED: SEPTEMBER TO OCTOBER 1988

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures.
(X) - Not applicable. (R) -- Revised.

ITEM	TRADE BALANCE		EXPORTS, F.A.S. VALUE			GENERAL IMPORTS, C.I.F. VALUE		
	OCTOBER	SEPTEMBER	TOTAL		CHANGE	TOTAL		CHANGE
			OCTOBER	SEPTEMBER		OCTOBER	SEPTEMBER	
TOTAL.....	-11,752.4	(R)-10,698.1	28,476.8	(R)27,236.6	1,240.2	40,229.2	(R)37,934.7	2,294.5
COMMODITY GROUPING:								
AGRICULTURAL COMMODITIES.....	1,379.8	1,376.8	3,302.0	3,179.5	122.5	1,922.2	1,802.7	119.5
MANUFACTURED GOODS.....	-13,584.6	-11,367.7	18,715.1	18,698.2	16.9	32,299.7	30,065.9	2,233.8
PETROLEUM AND PRODUCTS.....	-2,905.2	-3,048.9	231.7	253.3	-21.6	3,136.9	3,302.2	-165.3
BITUMINOUS COAL.....	369.9	408.9	373.9	409.8	-35.9	4.0	0.9	3.1
NATURAL GAS.....	-92.8	-94.8	19.7	19.8	-0.1	112.5	114.6	-2.1
NONMONETARY GOLD.....	40.9	32.3	184.7	143.3	41.4	143.8	111.0	32.8
FISH AND PREPARATIONS.....	-270.8	-226.2	174.1	202.0	-27.9	444.9	428.2	16.7
CRUDE MATERIALS.....	158.6	313.9	1,078.5	1,202.9	-124.4	919.9	889.0	30.9
REEXPORTS.....	1,075.8	1,104.4	1,075.8	1,104.4	-28.6	(X)	(X)	(X)
UNDOCUMENTED EXPORTS TO CANADA.....	1,518.3	(R) 742.6	1,518.3	(R) 742.6	775.7	(X)	(X)	(X)
ALL OTHER.....	557.7	496.8	1,803.0	1,721.2	81.8	1,245.3	1,224.4	20.9
TIMING ADJUSTMENTS.....	(X)	-436.3	(X)	-440.5	(X)	(X)	-4.2	(X)
COUNTRY/ECONOMIC/ GEOGRAPHIC AREAS:								
CANADA.....	-960.7	(R) -892.7	6,410.6	(R) 6,162.9	247.7	7,371.3	7,055.6	315.7
WESTERN EUROPE.....	-1,146.2	-878.7	7,752.1	7,216.1	536.0	8,898.3	8,094.8	803.5
JAPAN.....	-5,518.2	-4,084.3	3,206.1	3,244.5	-38.4	8,724.3	7,328.8	1,395.5
NEWLY INDUSTRIALIZED COUNTRIES (NICs).....	-2,984.8	-3,076.9	2,788.0	2,891.3	-103.3	5,772.8	5,968.2	-195.4
OPEC.....	-768.2	-687.2	1,239.8	1,343.0	-103.2	2,008.0	2,030.2	-22.2
MEXICO.....	31.8	-37.0	2,043.6	1,935.6	108.0	2,011.8	1,972.6	39.2
BRAZIL.....	-518.8	-584.0	314.4	330.8	-16.4	833.2	914.8	-81.6
ALL OTHER.....	112.7	-21.1	4,722.2	4,552.8	169.4	4,609.5	4,573.9	35.6
TIMING ADJUSTMENTS.....	(X)	-436.3	(X)	-440.5	(X)	(X)	-4.2	(X)

EXHIBIT B-2. SUMMARY OF CHANGES IN EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (CUSTOMS VALUE) AND MERCHANDISE TRADE BALANCE BY COMMODITY GROUPING, COUNTRY, ECONOMIC AND GEOGRAPHIC AREA, NOT SEASONALLY ADJUSTED: SEPTEMBER TO OCTOBER 1988

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures.
(X) - Not applicable. (R) -- Revised.

ITEM	TRADE BALANCE		EXPORTS, F.A.S. VALUE			GENERAL IMPORTS, CUSTOMS VALUE		
	OCTOBER	SEPTEMBER	TOTAL		CHANGE	TOTAL		CHANGE
			OCTOBER	SEPTEMBER		OCTOBER	SEPTEMBER	
TOTAL.....	-10,208.1	(R)-9,222.5	28,476.8	(R)27,236.6	1,240.2	38,684.9	(R)36,459.1	2,225.8
COMMODITY GROUPING:								
AGRICULTURAL COMMODITIES.....	1,527.1	1,520.1	3,302.0	3,179.5	122.5	1,774.9	1,659.4	115.5
MANUFACTURED GOODS.....	-12,509.4	-10,358.1	18,715.1	18,698.2	16.9	31,224.5	29,056.3	2,168.2
PETROLEUM AND PRODUCTS.....	-2,684.3	-2,812.6	231.7	253.3	-21.6	2,916.0	3,065.9	-149.9
BITUMINOUS COAL.....	371.0	409.0	373.9	409.8	-35.9	2.9	0.8	2.1
NATURAL GAS.....	-92.1	-94.2	19.7	19.8	-0.1	111.8	114.0	-2.2
NONMONETARY GOLD.....	41.0	32.4	184.7	143.3	41.4	143.7	110.9	32.8
FISH AND PREPARATIONS.....	-249.4	-204.9	174.1	202.0	-27.9	423.5	406.9	16.6
CRUDE MATERIALS.....	208.3	362.1	1,078.5	1,202.9	-124.4	870.2	840.8	29.4
REEXPORTS.....	1,075.8	1,104.4	1,075.8	1,104.4	-28.6	(X)	(X)	(X)
UNDOCUMENTED EXPORTS TO CANADA.....	1,518.3	(R) 742.6	1,518.3	(R) 742.6	775.7	(X)	(X)	(X)
ALL OTHER.....	585.6	552.0	1,803.0	1,721.2	81.8	1,217.4	1,199.2	18.2
TIMING ADJUSTMENTS.....	(X)	-445.4	(X)	-440.5	(X)	(X)	4.9	(X)
COUNTRY/ECONOMIC/ GEOGRAPHIC AREAS:								
CANADA.....	-922.0	(R) -854.5	6,410.6	(R) 6,162.9	247.7	7,332.6	7,017.4	315.2
WESTERN EUROPE.....	-769.7	-533.4	7,752.1	7,216.1	536.0	8,521.8	7,749.5	772.3
JAPAN.....	-5,211.1	-3,828.9	3,206.1	3,244.5	-38.4	8,417.2	7,073.4	1,343.8
NEWLY INDUSTRIALIZED COUNTRIES (NICs).....	-2,711.0	-2,795.0	2,788.0	2,891.3	-103.3	5,499.0	5,686.3	-187.3
OPEC.....	-598.6	-518.4	1,239.8	1,343.0	-103.2	1,838.4	1,861.4	-23.0
MEXICO.....	54.1	-16.0	2,043.6	1,935.6	108.0	1,989.5	1,951.6	37.9
BRAZIL.....	-465.4	-526.2	314.4	330.8	-16.4	779.8	857.0	-77.2
ALL OTHER.....	415.6	295.2	4,722.2	4,552.8	169.4	4,306.6	4,257.6	49.0
TIMING ADJUSTMENTS.....	(X)	-445.4	(X)	-440.5	(X)	(X)	4.9	(X)

EXHIBIT 9. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (C.I.F. VALUE) BY PRINCIPAL COMMODITY GROUPINGS, NOT SEASONALLY ADJUSTED:
1988 AND 1987

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) - Revised. (X) Not applicable.

ITEM	1988						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.
TOTAL	28,476.8	40,229.2	(R)27,236.6	(R)37,934.7	264,900.4	379,248.9	22,777.8	39,764.5	206,528.8	350,363.1
SUMMARY: DOMESTIC EXPORTS; GENERAL IMPORTS										
AGRICULTURAL COMMODITIES	3,302.0	1,922.2	3,179.5	1,802.7	30,040.9	19,286.3	2,676.1	1,978.0	22,852.2	17,442.6
ANIMAL FEEDS	279.6	29.2	290.1	32.0	2,819.4	252.5	181.6	16.2	2,193.3	197.8
COCOA	0.8	50.0	1.6	60.8	10.0	804.3	0.6	98.3	11.6	882.2
COFFEE	4.0	192.0	3.6	201.7	34.0	2,116.0	5.6	345.8	40.8	2,555.5
CORN	564.6	1.2	500.3	0.7	4,145.5	13.9	280.2	0.6	2,708.4	7.8
COTTON, RAW	71.2	0.1	86.0	0.1	1,846.7	0.9	114.0	(Z)	1,184.6	0.5
RICE	79.7	4.9	61.8	5.5	633.3	57.2	61.3	3.5	464.2	35.7
RUBBER, CRUDE	3.1	131.5	4.4	118.6	37.6	1,271.8	3.1	92.5	30.1	988.6
SOYBEANS	421.6	5.4	235.5	0.4	3,762.4	13.0	547.7	0.1	3,329.9	0.7
SUGAR	16.8	70.2	9.8	50.9	89.9	386.8	7.2	25.3	77.9	418.8
TOBACCO, UNMANUFACTURED	84.6	54.4	80.8	30.6	990.1	370.6	72.6	37.6	772.6	534.9
VEGETABLES AND FRUIT	362.8	402.5	323.2	369.9	2,863.2	4,436.0	354.5	355.2	2,399.0	4,315.5
WHEAT	377.0	9.3	490.0	6.8	4,060.9	58.5	280.9	2.9	2,545.9	33.6
OTHER AGRICULTURAL	1,036.2	971.5	1,092.4	924.7	8,947.9	9,504.8	766.1	1,000.6	7,093.9	7,471.0
MANUFACTURED GOODS	18,715.1	32,299.7	18,698.2	30,065.9	176,974.1	297,993.5	14,424.6	29,941.9	139,152.8	267,967.8
AOP EQUIPMENT; OFFICE MACHINERY	2,005.0	2,042.8	1,972.8	1,972.7	18,866.6	18,876.0	1,693.5	1,855.0	14,966.4	15,162.5
AIRPLANES	1,122.8	90.5	651.7	221.8	10,093.5	1,911.6	528.4	283.8	7,833.6	1,641.0
AIRPLANE PARTS	686.1	252.9	648.9	207.0	6,110.9	2,282.1	592.4	222.7	5,442.0	1,970.1
ALUMINUM	168.4	302.3	210.1	324.5	1,686.7	2,961.2	101.1	289.8	946.9	2,408.9
ARTWORK/ANTIQUES	60.3	221.8	55.2	147.4	769.0	1,676.3	51.3	182.1	578.0	1,556.9
CHEMICALS-DYING TANNING	59.1	74.1	60.3	73.2	589.3	889.0	51.4	97.3	521.6	897.1
CHEMICALS-FERTILIZER	241.2	80.7	239.7	75.4	2,108.8	901.0	218.0	66.4	1,849.4	675.1
CHEMICALS-MEDICINAL PHARMACEUTICAL	366.8	149.4	369.4	163.3	3,268.7	1,576.1	274.1	118.0	2,700.8	1,211.1
CHEMICALS-ORGANIC/ INORGANIC	977.8	957.2	1,349.6	844.8	10,736.3	9,236.4	750.1	768.6	8,728.2	7,257.0
CHEMICALS-PERFUME MATERIALS: POLISH- ING AND CLEANING PREPARATIONS	97.5	109.8	92.5	98.1	903.1	1,031.1	78.8	90.9	771.5	863.5
CHEMICALS-SYNTHETIC RESINS AND PLASTICS	505.4	200.1	535.7	199.1	5,251.4	1,926.6	385.6	175.0	3,813.0	1,558.9
CHEMICALS-TURPENTINE WAXES AND PRODUCTS, NSPF	276.3	164.5	367.1	127.2	3,116.0	1,460.0	244.3	111.4	2,571.4	1,159.4
CLOTHING & FOOTWEAR	161.6	2,639.1	178.2	2,704.0	1,497.8	26,409.1	126.2	2,599.3	1,094.3	25,235.7
COPPER	43.4	209.8	122.1	140.7	613.3	1,737.5	27.5	137.7	270.7	1,284.7
ELECTRICAL MACHINERY FIXTURES-PLUMBING	1,986.3	2,970.8	1,873.1	2,814.2	17,872.4	26,020.5	1,529.2	2,416.9	13,592.7	20,515.3
HEATING/LIGHTING FURNITURE AND PARTS	27.4	79.2	30.3	71.5	281.6	755.0	21.8	71.5	217.5	712.2
GEM DIAMONDS	78.4	440.8	74.9	405.1	687.0	4,252.9	57.4	443.5	503.7	4,167.5
GENERAL INDUSTRIAL MACHINERY	884.6	1,081.0	910.7	1,022.5	8,643.1	11,054.5	702.7	975.9	6,585.0	9,583.1
GLASS	65.3	77.6	65.2	70.7	605.3	681.6	51.8	75.7	494.5	673.0
IRON AND STEEL MILL PRODUCTS	196.3	845.3	202.3	883.0	1,433.1	9,203.5	88.0	742.5	920.1	7,539.1
LOCOMOTIVES; RAILWAY VEHICLES	20.6	36.7	30.1	46.0	264.2	384.1	20.3	57.6	295.6	522.8
METAL MANUFACTURES NSPF	292.8	428.3	294.4	393.8	2,704.6	4,152.4	227.4	402.2	2,191.4	3,643.5
METALWORKING MACHINERY	177.7	263.0	161.7	247.8	1,559.0	2,761.5	125.7	244.2	1,306.2	2,546.0
MOTORCYCLES/PARTS BICYCLES/TRAILERS	29.6	122.8	29.1	86.8	327.8	1,000.1	19.9	100.1	205.4	1,005.9
MUSICAL INSTRUMENTS/ RECORDING MEDIA	193.6	258.9	188.9	251.9	1,789.4	2,149.7	131.9	236.5	1,195.5	2,174.2
NICKEL	17.6	108.2	12.9	117.3	135.4	1,012.8	8.0	68.5	86.8	454.6
OPTICAL GOODS	35.3	110.6	33.6	103.0	345.7	1,121.1	31.5	106.5	303.4	1,077.7
PAPER/PAPERBOARD/ NEWSPRINT	314.9	377.7	351.6	401.0	3,236.0	3,886.0	257.2	363.6	2,625.1	3,483.0
PHOTOGRAPHIC APPAR- ATUS/SUPPLIES	207.6	306.1	203.0	237.7	1,923.1	2,368.6	173.6	261.1	1,689.6	2,170.2
PLATINUM	10.1	130.9	12.9	110.5	197.6	988.6	17.8	85.5	114.8	935.2
BATTERY	6.3	129.6	6.3	133.2	45.3	1,202.9	3.3	153.0	30.2	1,199.0
POWER GENERATING MACHINERY	1,248.6	1,039.5	1,089.5	944.5	10,577.8	9,359.4	841.8	891.0	8,162.3	8,174.1
PRINTED MATTER	160.0	156.6	164.8	159.0	1,586.5	1,389.8	127.6	153.9	1,278.4	1,297.9
RUBBER/PLASTIC ARTICLES EX TIRES	169.0	368.4	180.9	358.7	1,723.0	3,599.1	136.9	341.5	1,309.6	3,094.0
SCIENTIFIC INSTRUMENTS AND PARTS	796.2	444.5	766.6	432.4	7,320.9	4,339.1	679.1	426.1	6,053.5	3,771.8
SILVER BULLION	5.3	23.8	2.8	29.1	69.4	393.3	13.8	46.6	70.6	385.4
SPACECRAFT AND PARTS	31.5	7.8	21.5	6.0	363.0	62.6	57.5	20.4	258.0	49.9
SPECIALIZED INDUSTRIAL MACHINERY	1,030.6	989.2	1,017.4	966.3	9,706.8	10,569.1	801.1	962.2	7,471.0	9,118.1
TELECOMMUNICATIONS APPARATUS; EQUIP- MENT; AND PARTS	590.8	2,274.9	542.0	2,053.8	5,351.9	18,545.4	440.4	2,164.1	4,078.1	17,610.1
TEXTILE YARNS, FABRICS, AND ARTICLES	317.8	563.1	346.8	511.2	3,011.4	5,630.4	249.2	625.9	2,416.2	5,755.9
TIRES AND TUBES-- AUTOMOTIVE	64.0	196.7	67.4	175.6	642.8	1,798.3	44.2	164.1	415.3	1,692.7
TOYS/GAMES/SPORTING GOODS	113.1	778.5	106.6	740.3	1,036.8	5,837.7	75.2	702.3	720.0	5,371.8
TRAVEL GOODS	5.8	179.7	5.5	170.6	54.6	1,768.7	4.7	195.5	37.5	1,719.1

EXHIBIT 9. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (C.I.F. VALUE) BY PRINCIPAL COMMODITY GROUPINGS, NOT SEASONALLY ADJUSTED:
1988 AND 1987 -- CONTINUED

In millions of dollars, except percent. Details may not add to totals due to rounding and other statistical procedures.
Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) -- Revised. (X) Not applicable.

ITEM	1988						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.
MANUFACTURED GOODS--CONTINUED										
UMBRELLAS/BASKETS										
BROOMS/BRUSHES/ CANDLES AND OTHER MISCELLANEOUS ARTICLES.....	44.9	141.8	44.7	150.7	452.5	1,310.6	36.3	133.1	338.4	1,212.8
VEHICLES AND PARTS:										
CARS, NEW CANADIAN	508.7	1,149.6	675.6	1,136.4	5,290.4	11,128.5	466.7	927.8	4,633.4	8,010.7
CARS, NEW JAPANESE	28.8	2,109.0	52.2	1,398.7	201.6	16,425.7	10.8	2,167.6	50.7	18,188.0
CARS, NEW OTHER COUNTRIES.....	179.9	1,160.9	89.3	1,200.8	1,344.7	11,446.7	92.0	1,437.0	653.2	13,707.4
TRUCKS.....	261.0	757.7	258.2	624.9	2,479.1	6,433.5	237.3	514.3	2,084.3	7,043.2
CHASSIS/BODIES.....	48.5	177.9	50.8	153.7	499.0	1,619.2	46.2	162.3	497.3	1,227.9
PARTS.....	1,042.6	1,344.3	1,059.4	1,243.6	10,134.3	12,471.5	907.4	1,244.7	8,506.8	10,945.5
VESSELS/FLOATING STRUCTURES/PARTS...	62.8	51.4	65.2	56.2	802.9	651.8	54.5	48.9	572.7	556.5
WATCHES/CLOCKS/PARTS	10.9	198.9	10.5	192.9	105.9	1,615.6	6.9	195.7	74.3	1,422.7
WOOD MANUFACTURES...	67.2	185.4	68.9	228.1	684.2	1,952.5	57.4	226.3	555.7	1,916.8
ZINC.....	1.9	91.0	1.7	83.5	19.1	703.0	1.8	59.6	16.1	502.5
OTHER MANUFACTURED GOODS.....	538.3	2,196.3	582.5	2,011.7	5,115.6	19,392.4	389.8	2,065.1	3,919.5	16,995.5
PETROLEUM AND PETROLEUM PRODUCTS...	231.7	3,136.9	253.3	3,302.2	3,003.2	35,109.4	322.6	4,341.4	3,159.1	37,192.5
CRUDE PETROLEUM.....	1.3	2,119.1	7.5	2,219.4	70.7	23,575.3	13.2	3,068.0	102.8	25,745.7
OTHER PETROLEUM PRODUCTS.....	230.4	1,017.8	245.7	1,082.8	2,932.5	11,534.1	309.4	1,273.4	3,056.3	11,446.8
MINERAL FUELS, EXCL. PETROLEUM PRODUCTS...	424.6	145.5	458.1	140.5	3,665.0	1,812.0	307.6	160.5	3,077.1	1,518.4
COAL.....	373.9	4.0	409.8	0.9	3,232.6	26.1	271.4	3.0	2,688.3	39.9
NATURAL GAS.....	19.7	112.5	19.8	114.6	182.3	1,482.6	17.4	139.0	246.2	1,324.0
NONMONETARY GOLD.....	184.7	143.8	143.3	111.0	4,427.9	1,057.5	103.2	273.1	1,002.3	1,401.9
CRUDE MATERIALS EXCLUDING AGRICUL- TURAL & FUELS.....	1,078.5	919.9	1,202.9	889.0	11,076.7	8,790.8	818.6	813.1	8,159.3	7,468.2
CORK, WOOD, LUMBER..	333.2	284.2	368.0	289.5	3,642.1	2,932.0	292.9	313.5	2,581.7	3,007.1
PULP & WASTE PAPER..	298.6	250.4	344.2	219.2	3,051.0	2,260.0	215.0	175.2	2,339.1	1,747.5
METAL ORES; SCRAP...	357.1	304.0	377.7	303.2	3,422.5	2,878.5	245.4	262.5	2,411.6	2,129.8
OTHER CRUDE MATERIAL.....	89.6	81.3	112.9	77.1	961.1	720.3	65.2	61.9	827.0	583.8
FISH AND PREPARATIONS.	174.1	444.9	202.0	428.2	1,965.2	4,604.8	152.5	531.1	1,364.7	4,887.0
FISH- FRESH: CHILLED; FROZEN....	82.7	173.3	144.8	174.4	1,280.2	1,837.4	74.4	223.9	882.4	2,113.1
BEVERAGES; TOBACCO EXCL. AGRICULTURAL...	289.8	423.3	296.1	361.9	2,706.5	7,115.9	247.6	423.1	2,094.9	3,123.8
CIGARETTES.....	234.5	3.9	240.0	3.0	2,164.9	7.6	193.5	2.8	1,665.2	28.0
DISTILLED ALCOHO- LIC BEVERAGES.....	16.3	198.9	13.7	154.5	128.7	1,269.1	9.9	177.8	91.6	1,149.6
OTHER BEVERAGES; TOBACCO EXCLUDING AGRICULTURAL.....	39.0	220.4	42.5	204.3	413.0	1,987.2	44.3	242.5	338.1	1,946.1
UNDOCUMENTED EXPORTS TO CANADA.....	1,518.3	(X)	(R) 742.6	(X)	8,027.3	(X)	797.8	(X)	5,026.9	(X)
ALL OTHER DOMESTIC EXPORTS & GENERAL IMPORTS.....	1,482.2	793.0	1,396.7	837.5	13,235.3	7,796.4	1,103.5	921.2	11,079.7	9,060.3
REEXPORTS.....	1,075.8	(X)	1,104.4	(X)	10,061.7	(X)	798.1	(X)	7,296.6	(X)
AGRICULTURAL COMMODITIES.....	48.1	(X)	44.7	(X)	485.4	(X)	34.7	(X)	406.1	(X)
MANUFACTURED GOODS..	940.9	(X)	986.9	(X)	8,642.6	(X)	711.4	(X)	6,380.6	(X)
PETROLEUM AND PETROLEUM PRODUCTS.	2.3	(X)	5.8	(X)	35.5	(X)	0.3	(X)	54.6	(X)
NONMONETARY GOLD....	43.8	(X)	12.4	(X)	407.8	(X)	11.9	(X)	99.0	(X)
OTHER REEXPORTS.....	40.7	(X)	54.6	(X)	490.4	(X)	39.8	(X)	356.3	(X)
TIMING ADJUSTMENTS....	(X)	(X)	-440.5	-4.2	-283.4	-487.7	1,025.6	381.1	2,263.2	300.6

EXHIBIT 10. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (CUSTOMS VALUE) BY PRINCIPAL COMMODITY GROUPINGS, NOT SEASONALLY ADJUSTED: 1988 AND 1987

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures. Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) - Revised. (X) Not applicable.

ITEM	1988						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS
TOTAL	28,476.8	38,684.9	(R)27,236.6	(R)36,459.1	264,900.4	363,825.4	22,777.8	38,075.6	206,528.8	335,271.4
SUMMARY:										
DOMESTIC EXPORTS:										
GENERAL IMPORTS										
AGRICULTURAL COMMODITIES.....	3,302.0	1,774.9	3,179.5	1,659.4	30,040.9	17,672.8	2,676.1	1,810.6	22,852.2	17,275.2
ANIMAL FEEDS.....	279.6	28.4	290.1	30.7	2,819.4	240.9	181.6	15.4	2,193.3	185.1
COCOA.....	0.8	46.5	1.6	57.0	10.0	754.5	0.6	92.8	11.6	827.0
COFFEE.....	4.0	181.1	3.6	191.3	34.0	2,013.0	5.6	324.2	40.8	2,431.5
CORN.....	564.6	1.2	500.3	0.6	4,145.5	12.9	280.2	0.6	2,708.4	7.3
COTTON, RAW.....	71.2	0.1	86.0	0.1	1,646.7	0.9	114.0	(Z)	1,184.6	0.5
RICE.....	79.7	4.2	61.8	4.8	633.3	49.4	61.3	2.9	464.2	29.2
RUBBER, CRUDE.....	3.1	123.2	4.4	111.5	37.6	1,188.8	3.1	85.3	30.1	910.1
SOYBEANS.....	421.6	5.4	235.5	0.4	3,762.4	13.0	547.7	0.1	3,329.9	0.7
SUGAR.....	16.8	66.0	9.8	46.7	89.9	352.2	7.2	22.5	77.9	382.4
TOBACCO, UNMANUFAC.....	84.6	51.5	80.8	28.3	990.1	346.6	72.6	35.2	772.6	503.6
TURED.....	362.8	357.3	323.2	327.3	2,863.2	3,877.2	354.5	309.7	2,399.0	3,759.7
VEGETABLES AND FRUIT.....	377.0	9.2	490.0	6.8	4,060.9	58.2	280.9	2.8	2,545.9	33.2
WHEAT.....	1,036.2	900.8	1,092.4	853.9	8,947.9	8,765.2	766.8	919.1	7,093.9	8,204.5
OTHER AGRICULTURAL.....										
MANUFACTURED GOODS.....	18,715.1	31,224.5	18,698.2	29,056.3	176,974.1	287,588.8	14,424.6	28,801.4	139,152.8	257,445.8
ADP EQUIPMENT:										
OFFICE MACHINERY.....	2,005.0	1,996.6	1,972.8	1,929.2	18,866.6	18,434.6	1,693.5	1,801.4	14,966.4	14,713.7
AIRPLANES.....	1,122.8	90.3	651.7	221.4	10,093.5	1,907.8	528.4	283.3	7,833.6	1,637.0
AIRPLANE PARTS.....	686.1	250.1	648.9	204.6	6,110.9	2,255.5	592.4	220.0	5,442.0	1,944.0
ALUMINUM.....	168.4	297.3	210.1	320.4	1,686.7	2,909.6	101.1	284.1	946.9	2,353.7
ARTWORK/ANTIQUES.....	60.3	219.8	55.2	145.6	769.0	1,656.8	51.3	179.7	578.0	1,535.7
CHEMICALS-DYING										
TANNING.....	59.1	71.2	60.3	70.7	589.3	857.6	51.4	93.5	521.6	858.5
CHEMICALS-FERTILIZERS										
CHEMICALS-MEDICINAL										
PHARMACEUTICAL	241.2	75.5	239.7	69.4	2,108.8	831.8	218.0	61.7	1,849.4	621.5
CHEMICALS-ORGANIC/INORGANIC.....	366.8	146.5	369.4	160.8	3,268.7	1,549.4	274.1	115.8	2,700.8	1,187.7
CHEMICALS-PERFUME MATERIALS; POLISHING AND CLEANING PREPARATIONS.....	97.5	105.6	92.5	94.4	903.1	993.3	78.8	87.1	771.5	827.8
CHEMICALS-SYNTHETIC RESINS AND PLASTICS										
CHEMICALS-TURPENTINE WAXES AND PRODUCTS.....	505.4	191.8	535.7	190.4	5,251.4	1,835.8	385.6	165.9	3,813.0	1,472.7
NSPF.....	276.3	158.7	367.1	121.6	3,116.0	1,394.4	244.3	105.8	2,571.4	1,099.7
CLOTHING & FOOTWEAR.....	161.6	2,487.7	178.2	2,557.2	1,497.8	24,931.9	126.2	2,439.3	1,094.3	23,602.7
COPPER.....	43.4	205.9	122.1	137.4	613.3	1,701.0	27.5	133.6	270.7	1,275.5
ELECTRICAL MACHINERY										
FIXTURES-PLUMBING										
HEATING/LIGHTING.....	27.4	74.0	30.3	66.6	281.6	702.6	21.8	66.2	217.5	656.7
FURNITURE AND PARTS.....	78.4	413.8	74.9	380.3	687.0	3,949.0	57.4	409.3	503.7	3,836.8
GEM DIAMONDS.....	70.8	447.1	93.1	340.8	737.9	3,662.3	55.8	323.4	534.6	2,900.0
GENERAL INDUSTRIAL MACHINERY.....	884.6	1,044.2	910.7	988.3	8,643.1	10,666.4	702.7	939.5	6,585.0	9,218.7
GLASS.....	65.3	74.4	65.2	67.7	605.3	648.2	51.8	71.9	494.5	638.2
IRON AND STEEL MILL PRODUCTS.....	196.3	787.3	202.3	821.6	1,433.1	8,534.9	88.0	687.5	920.1	6,973.1
LOCOMOTIVES; RAILWAY VEHICLES.....	20.6	36.2	30.1	45.4	264.2	376.8	20.3	56.3	295.6	509.1
METAL MANUFACTURES NSPF.....	292.8	408.6	294.4	374.9	2,704.6	3,945.5	227.4	380.3	2,191.4	3,440.5
METALWORKING MACHINERY.....	177.7	254.2	161.7	238.4	1,559.0	2,665.7	125.7	234.5	1,306.2	2,451.0
MOTORCYCLES/PARTS										
BICYCLES/TRAILERS.....	29.6	117.9	29.1	83.1	327.8	954.2	19.9	94.7	205.4	948.5
MUSICAL INSTRUMENTS/RECORDING MEDIA.....	193.6	251.6	188.9	244.8	1,789.4	2,087.2	131.9	228.0	1,195.5	2,105.7
NICKEL.....	17.6	107.7	12.9	116.6	1,35.4	1,006.9	8.0	67.8	46.8	448.1
OPTICAL GOODS.....	35.3	107.6	33.6	100.2	345.7	1,088.3	31.5	103.5	303.4	1,044.4
PAPER/PAPERBOARD/NEWSPRINT.....	314.9	370.0	351.6	391.9	3,236.0	3,805.8	257.2	355.7	2,625.1	3,407.7
PHOTOGRAPHIC APPARATUS/SUPPLIES.....	207.6	288.2	203.0	231.1	1,923.1	2,307.7	173.6	253.7	1,689.6	2,114.7
PLATINUM.....	10.1	130.5	12.9	110.1	197.6	886.3	17.8	85.3	114.8	931.4
POTTERY.....	6.3	118.9	6.3	122.9	45.3	1,105.9	3.3	139.2	30.2	1,093.7
POWER GENERATING MACHINERY.....	1,248.6	1,022.0	1,089.5	929.6	10,577.8	9,201.4	841.8	876.3	8,162.3	8,037.7
PRINTED MATTER.....	160.0	149.6	164.8	150.5	1,586.5	1,327.0	127.6	145.8	1,278.4	1,235.0
RUBBER/PLASTIC ARTICLES EX TIRES.....	169.0	349.2	180.9	339.8	1,723.0	3,402.4	136.9	319.7	1,309.6	2,895.4
SCIENTIFIC INSTRUMENTS AND PARTS.....	796.2	434.0	766.6	422.0	7,320.9	4,235.9	679.1	415.6	6,053.5	3,680.4
SILVER BULLION.....	5.3	23.7	2.8	29.1	69.4	392.6	13.8	46.5	70.6	376.6
SPACECRAFT AND PARTS										
SPECIALIZED INDUSTRIAL MACHINERY.....	1,030.6	957.3	1,017.4	936.0	9,706.8	10,226.6	801.1	928.6	7,471.0	8,792.7
TELECOMMUNICATIONS APPARATUS; EQUIPMENT; AND PARTS.....	590.8	2,229.5	542.0	2,016.4	5,351.9	18,209.7	440.4	2,119.2	4,078.1	17,240.7
TEXTILE YARNS, FABRICS, AND ARTICLES.....	317.8	532.4	346.8	482.9	3,011.4	5,317.4	249.2	589.1	2,416.2	5,410.4
TIRES AND TUBES--AUTOMOTIVE.....	64.0	183.9	67.4	163.9	642.8	1,675.7	44.2	153.6	415.3	1,579.7
TOYS/GAMES/SPORTING GOODS.....	113.1	736.2	106.6	697.8	1,036.8	5,505.8	75.2	650.5	720.0	4,994.1
TRAVEL GOODS.....	5.8	168.9	5.5	160.3	54.6	1,660.6	4.7	183.1	37.5	1,597.1

EXHIBIT 10. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (CUSTOMS VALUE) BY PRINCIPAL COMMODITY GROUPINGS, NOT SEASONALLY ADJUSTED:
1986 AND 1987 -- CONTINUED

In millions of dollars, except percent. Details may not add to totals due to rounding and other statistical procedures.
Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) -- Revised. (X) Not applicable.

ITEM	1986						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS
MANUFACTURED GOODS--CONTINUED										
UMBRELLAS/BASKETS BROOMS/BRUSHES/ CANDLES AND OTHER MISCELLANEOUS ARTICLES.....	44.9	130.2	44.7	138.2	452.5	1,200.0	36.3	120.8	338.4	1,099.3
VEHICLES AND PARTS: CARS, NEW CANADIAN..	508.7	1,149.6	675.6	1,136.4	5,290.4	11,128.4	466.7	927.8	4,633.4	8,010.6
CARS, NEW JAPANESE..	28.8	2,032.0	52.2	1,348.5	201.6	15,827.2	10.8	2,086.1	50.7	17,494.6
CARS, NEW OTHER COUNTRIES.....	179.9	1,135.3	89.3	1,168.7	1,344.7	11,149.9	92.0	1,400.7	653.2	13,368.9
TRUCKS.....	261.0	740.3	258.2	614.7	2,479.1	6,270.6	237.3	497.5	2,084.3	6,812.0
CHASSIS/BODIES.....	48.5	173.1	50.8	150.6	499.0	1,577.2	46.2	156.1	497.3	1,188.6
PARTS.....	1,042.6	1,309.7	1,059.4	1,210.2	10,134.3	12,125.0	907.4	1,206.9	8,506.8	10,632.9
VESSELS/FLOATING STRUCTURES/PARTS...	62.8	49.0	65.2	53.9	802.9	626.4	54.5	46.1	572.7	525.5
WATCHES/CLOCKS/PARTS	10.9	194.4	10.5	188.7	105.9	1,579.0	6.9	190.8	74.3	1,388.4
WOOD MANUFACTURES...	67.2	172.7	68.9	211.1	684.2	1,819.2	57.4	208.4	555.7	1,772.4
ZINC.....	1.9	89.7	1.7	81.5	19.1	690.8	1.8	58.2	16.1	491.6
OTHER MANUFACTURED GOODS.....	538.3	2,093.9	582.5	1,912.9	5,115.6	18,409.7	389.8	1,899.6	3,919.5	16,076.5
PETROLEUM AND PETROLEUM PRODUCTS...	231.7	2,916.0	253.3	3,065.9	3,003.2	32,634.5	322.6	4,081.9	3,159.1	35,169.8
CRUDE PETROLEUM.....	1.3	1,979.9	7.5	2,064.9	70.7	21,965.8	13.2	2,895.7	102.8	24,520.6
OTHER PETROLEUM PRODUCTS.....	230.4	936.1	245.7	1,001.0	2,932.5	10,668.7	309.4	1,186.2	3,056.3	10,649.3
MINERAL FUELS, EXCL. PETROLEUM PRODUCTS...	424.6	141.0	458.1	137.7	3,665.0	1,769.5	307.6	158.3	3,077.1	1,498.0
COAL.....	373.9	2.9	409.8	0.8	3,232.6	22.1	271.4	2.4	2,688.3	34.9
NATURAL GAS.....	19.7	111.8	19.8	114.0	182.3	1,477.8	17.4	139.0	246.2	1,320.7
NONMONETARY GOLD.....	184.7	143.7	143.3	110.9	4,427.9	1,056.1	103.2	273.0	1,002.3	1,393.7
CRUDE MATERIALS EXCLUDING AGRICUL- TURAL & FUELS.....	1,078.5	870.2	1,202.9	840.8	11,076.7	8,311.4	818.6	763.2	8,159.3	7,039.5
CORK, WOOD, LUMBER..	333.2	275.3	368.0	281.3	3,642.1	2,840.1	292.9	303.5	2,581.7	2,898.2
PULP & WASTE PAPER..	298.6	248.1	344.2	215.9	3,051.0	2,234.5	215.0	174.2	2,339.1	1,729.5
METAL ORES; SCRAP...	357.1	280.7	377.7	280.2	3,422.5	2,656.1	245.4	236.1	2,411.6	1,950.1
OTHER CRUDE MATERIAL.....	89.6	66.1	112.9	63.3	961.1	580.6	65.2	49.4	827.0	461.7
FISH AND PREPARATIONS..	174.1	423.5	202.0	406.9	1,965.2	4,374.2	152.5	507.3	1,364.7	4,649.0
FISH- FRESH; CHILLED; FROZEN....	82.7	161.2	144.8	162.5	1,280.2	1,707.3	74.4	210.5	882.4	1,974.0
BEVERAGES; TOBACCO EXCL. AGRICULTURAL...	289.8	393.1	296.1	333.5	2,706.5	3,029.4	247.6	389.9	2,094.9	2,861.0
CIGARETTES.....	234.5	3.8	240.0	2.9	2,164.9	28.8	193.5	2.8	1,665.2	27.3
DISTILLED ALCOHO- LIC BEVERAGES.....	16.3	189.6	13.7	147.5	128.7	1,213.5	9.9	169.0	91.6	1,094.5
OTHER BEVERAGES; TOBACCO EXCLUDING AGRICULTURAL.....	39.0	199.7	42.5	183.1	413.0	1,787.1	44.3	218.2	338.1	1,739.3
UNDOCUMENTED EXPORTS TO CANADA.....	1,518.3	(X)	(R) 742.6	(X)	8,027.3	(X)	797.8	(X)	5,026.9	(X)
ALL OTHER DOMESTIC EXPORTS & GENERAL IMPORTS.....	1,482.2	798.0	1,396.7	842.8	13,235.3	7,841.8	1,103.5	928.5	11,079.7	7,650.8
REEXPORTS.....	1,075.8	(X)	1,104.4	(X)	10,061.7	(X)	798.1	(X)	7,296.6	(X)
AGRICULTURAL COMMODITIES.....	48.1	(X)	44.7	(X)	485.4	(X)	34.7	(X)	406.1	(X)
MANUFACTURED GOODS..	940.9	(X)	986.9	(X)	8,642.6	(X)	711.4	(X)	6,380.6	(X)
PETROLEUM AND PETROLEUM PRODUCTS..	2.3	(X)	5.8	(X)	35.5	(X)	0.3	(X)	54.6	(X)
NONMONETARY GOLD....	43.8	(X)	12.4	(X)	407.8	(X)	11.9	(X)	99.0	(X)
OTHER REEXPORTS.....	40.7	(X)	54.6	(X)	490.4	(X)	39.8	(X)	356.3	(X)
TIMING ADJUSTMENTS....	(X)	(X)	-440.5	4.9	-283.4	-453.1	1,025.6	361.5	2,263.2	288.6

EXHIBIT 11-1. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (C.I.F. VALUE) BY SITC SECTIONS, NOT SEASONALLY ADJUSTED:
1988 AND 1987

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) - Revised.
(X) Not applicable.

ITEM	1988						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.	EXPORTS F.A.S.	IMPORTS C.I.F.
TOTAL	28,476.8	40,229.2	(R)27,236.6	(R)37,934.7	264,900.4	379,248.9	22,777.8	39,764.5	206,528.8	350,363.1
FOOD AND LIVE ANIMALS.	2,487.8	1,725.4	2,554.1	1,668.2	21,655.6	18,160.7	1,766.1	1,959.6	15,710.7	18,658.3
BEVERAGES AND TOBACCO.	374.3	477.6	377.0	392.5	3,696.6	3,656.4	320.2	460.6	2,867.5	3,658.7
CRUDE MATERIALS, INEDIBLE EXCEPT FUEL.	1,993.0	1,242.2	1,922.3	1,180.6	20,474.2	11,879.2	1,832.1	1,073.7	16,211.3	10,122.7
MINERAL FUELS, LUBRICANTS AND RELATED MATERIAL.....	656.3	3,282.4	711.4	3,442.7	6,668.1	36,921.4	630.1	4,501.9	6,236.2	38,711.0
OILS AND FATS-- ANIMAL AND VEGETABLE.	125.7	95.9	158.2	87.4	1,245.0	724.6	86.2	67.5	776.1	490.1
CHEMICALS AND RELATED PRODUCTS.....	2,622.6	1,765.5	3,119.1	1,607.7	26,935.6	17,355.0	2,075.5	1,452.9	21,700.0	13,891.1
MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL.....	1,938.5	5,610.4	2,180.6	5,372.4	18,679.5	53,970.6	1,430.0	5,096.3	14,013.8	46,635.5
MACHINERY AND TRANSPORT EQUIPMENT..	12,011.7	18,197.8	11,275.4	16,628.7	111,152.5	165,151.8	9,210.1	16,943.9	87,585.4	149,706.9
MISCELLANEOUS MANU- FACTURED ARTICLES....	2,142.4	6,726.0	2,123.2	6,457.0	20,206.5	61,516.2	1,709.0	6,448.8	15,853.6	57,734.5
COMMODITIES AND TRANS- ACTIONS NOT CLASSIFIED ELSEWHERE.....	3,048.7	1,106.0	2,151.4	1,101.6	24,408.5	10,400.8	1,894.6	1,378.1	16,014.4	10,454.0
REEXPORTS.....	1,075.8	(X)	1,104.4	(X)	10,061.7	(X)	798.1	(X)	7,296.6	(X)
TIMING ADJUSTMENTS....	(X)	(X)	-440.5	-4.2	-283.4	-487.7	1,025.6	381.1	2,263.2	300.6

EXHIBIT 11-2. EXPORTS (F.A.S. VALUE) AND GENERAL IMPORTS (CUSTOMS VALUE) BY SITC SECTIONS, NOT SEASONALLY ADJUSTED:
1988 AND 1987

In millions of dollars. Details may not add to totals due to rounding and other statistical procedures.
Dash (-) Represents zero. (NA) Not available. (Z) Less than one-half of rounded unit. (R) - Revised.
(X) Not applicable.

ITEM	1988						1987			
	OCTOBER		SEPTEMBER		CUMULATIVE TO DATE		OCTOBER		CUMULATIVE TO DATE	
	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS	EXPORTS F.A.S.	IMPORTS CUSTOMS
TOTAL	28,476.8	38,684.9	(R)27,236.6	(R)36,459.1	264,900.4	363,825.4	22,777.8	38,075.6	206,528.8	335,271.4
FOOD AND LIVE ANIMALS.	2,487.8	1,603.3	2,554.1	1,548.0	21,655.6	16,762.5	1,766.1	1,816.9	15,710.7	17,234.8
BEVERAGES AND TOBACCO.	374.3	444.7	377.0	361.9	3,696.6	3,376.0	320.2	425.1	2,867.5	3,364.6
CRUDE MATERIALS, INEDIBLE EXCEPT FUEL.	1,993.0	1,170.7	1,922.3	1,110.8	20,474.2	11,178.8	1,832.1	1,002.1	16,211.3	9,480.2
MINERAL FUELS, LUBRICANTS AND RELATED MATERIAL.....	656.3	3,057.0	711.4	3,203.6	6,668.1	34,404.0	630.1	4,240.2	6,236.2	36,667.8
OILS AND FATS-- ANIMAL AND VEGETABLE.	125.7	89.2	158.2	81.8	1,245.0	670.9	86.2	61.5	776.1	440.8
CHEMICALS AND RELATED PRODUCTS.....	2,622.6	1,695.5	3,119.1	1,541.9	26,935.6	16,576.1	2,075.5	1,384.0	21,700.0	13,219.7
MANUFACTURED GOODS CLASSIFIED CHIEFLY BY MATERIAL.....	1,938.5	5,354.6	2,180.6	5,116.6	18,679.5	51,363.6	1,430.0	4,829.0	14,013.8	44,141.6
MACHINERY AND TRANSPORT EQUIPMENT..	12,011.7	17,765.8	11,275.4	16,250.0	111,152.5	161,158.5	9,210.1	16,490.3	87,585.4	145,616.1
MISCELLANEOUS MANU- FACTURED ARTICLES....	2,142.4	6,408.6	2,123.2	6,147.9	20,206.5	58,490.5	1,709.0	6,098.1	15,853.6	54,468.2
COMMODITIES AND TRANS- ACTIONS NOT CLASSIFIED ELSEWHERE.....	3,048.7	1,095.6	2,151.4	1,091.9	24,408.5	10,297.6	1,894.6	1,366.9	16,014.4	10,348.7
REEXPORTS.....	1,075.8	(X)	1,104.4	(X)	10,061.7	(X)	798.1	(X)	7,296.6	(X)
TIMING ADJUSTMENTS....	(X)	(X)	-440.5	4.9	-283.4	-453.1	1,025.6	361.5	2,263.2	288.6

EXHIBIT 12. GENERAL IMPORTS (C. I. F. VALUE) OF PETROLEUM, NOT SEASONALLY ADJUSTED: 1988 AND 1987

Details may not equal totals due to rounding and other statistical procedures.

PERIOD	TOTAL	BARRELS PER DAY	ENERGY PRODUCTS				NONENERGY PRODUCTS TOTAL
			TOTAL	CRUDE PETROLEUM		ALL OTHER ENERGY PRODUCTS	
				TOTAL	BARRELS PER DAY		
Net quantity (thousands of barrels)							
1988							
JANUARY-OCTOBER.....	2,248,501	7,372	2,229,120	1,563,309	5,126	665,812	19,381
JANUARY.....	214,691	6,926	213,575	141,507	4,565	72,068	1,116
FEBRUARY.....	232,502	8,017	231,205	152,084	5,244	79,121	1,297
MARCH.....	206,268	6,654	204,710	145,138	4,682	59,572	1,558
APRIL.....	213,506	7,117	211,637	146,548	4,885	65,089	1,868
MAY.....	240,450	7,756	238,558	173,098	5,584	65,460	1,893
JUNE.....	220,784	7,359	218,181	165,471	5,516	52,710	2,603
JULY.....	216,803	6,994	214,657	152,271	4,912	62,386	2,147
AUGUST.....	244,120	7,875	241,997	163,201	5,265	78,796	2,124
SEPTEMBER.....	226,243	7,541	224,021	157,823	5,261	66,198	2,222
OCTOBER.....	233,133	7,520	230,579	166,167	5,360	64,412	2,554
NOVEMBER.....							
DECEMBER.....							
1987							
JANUARY-DECEMBER.....	2,470,578	6,769	2,446,135	1,744,977	4,781	701,158	24,443
JANUARY-OCTOBER.....	2,056,290	6,764	2,035,335	1,459,417	4,801	575,918	20,955
JANUARY.....	166,458	5,370	165,082	120,578	3,890	44,504	1,376
FEBRUARY.....	197,255	7,045	196,238	129,293	4,618	66,945	1,017
MARCH.....	185,678	5,990	184,044	122,371	3,947	61,673	1,634
APRIL.....	168,919	5,631	165,804	115,176	3,839	50,628	3,114
MAY.....	191,549	6,179	189,855	142,168	4,586	47,687	1,695
JUNE.....	214,739	7,158	212,502	153,260	5,109	59,242	2,237
JULY.....	243,023	7,839	240,660	173,906	5,610	66,754	2,364
AUGUST.....	243,380	7,851	240,817	178,446	5,756	62,371	2,564
SEPTEMBER.....	212,148	7,072	209,166	155,962	5,199	53,204	2,982
OCTOBER.....	233,140	7,521	231,167	168,257	5,428	62,910	1,972
NOVEMBER.....	215,135	7,171	212,956	149,456	4,982	63,500	2,179
DECEMBER.....	199,153	6,424	197,844	136,105	4,390	61,739	1,309

PERIOD	TOTAL	UNIT PRICE (dollars)	ENERGY PRODUCTS				NONENERGY PRODUCTS TOTAL
			TOTAL	CRUDE PETROLEUM		ALL OTHER ENERGY PRODUCTS	
				TOTAL	UNIT PRICE (dollars)		
Value (thousands of dollars)							
1988							
JANUARY-OCTOBER.....	35,109,437	15.61	34,744,797	23,575,307	15.08	11,169,487	364,639
JANUARY.....	3,632,330	16.92	3,603,101	2,365,976	16.72	1,237,125	29,229
FEBRUARY.....	3,816,708	16.42	3,784,296	2,466,246	16.22	1,318,050	32,412
MARCH.....	3,237,533	15.70	3,202,771	2,226,677	15.34	976,094	34,762
APRIL.....	3,350,957	15.69	3,317,964	2,236,999	15.26	1,080,965	32,993
MAY.....	3,942,540	16.40	3,901,063	2,716,045	15.69	1,185,018	41,477
JUNE.....	3,574,200	16.19	3,533,988	2,591,408	15.66	942,580	40,212
JULY.....	3,418,377	15.77	3,379,409	2,290,684	15.04	1,088,725	38,968
AUGUST.....	3,697,683	15.15	3,658,303	2,342,802	14.36	1,315,501	39,380
SEPTEMBER.....	3,302,235	14.60	3,259,771	2,219,386	14.06	1,040,385	42,465
OCTOBER.....	3,136,873	13.46	3,104,131	2,119,087	12.75	985,044	32,742
NOVEMBER.....							
DECEMBER.....							
1987							
JANUARY-DECEMBER.....	44,762,370	18.12	44,279,405	30,839,923	17.67	13,439,482	482,965
JANUARY-OCTOBER.....	37,192,549	18.09	36,791,405	25,745,727	17.64	11,045,676	401,144
JANUARY.....	2,541,508	15.27	2,517,426	1,770,587	14.68	746,839	24,082
FEBRUARY.....	3,357,483	17.02	3,331,607	2,099,938	16.24	1,231,669	25,876
MARCH.....	3,181,868	17.14	3,145,173	2,030,098	16.59	1,115,075	36,695
APRIL.....	2,993,412	17.72	2,957,825	1,994,950	17.32	962,875	35,887
MAY.....	3,477,178	18.15	3,447,396	2,523,462	17.75	923,934	29,782
JUNE.....	4,018,938	18.72	3,971,249	2,776,830	18.12	1,194,419	47,689
JULY.....	4,649,334	19.13	4,599,975	3,231,592	18.58	1,368,383	49,359
AUGUST.....	4,699,796	19.31	4,649,177	3,375,836	18.92	1,273,341	50,619
SEPTEMBER.....	3,931,668	18.53	3,873,524	2,874,399	18.43	999,125	58,144
OCTOBER.....	4,341,362	18.62	4,298,051	3,068,035	18.23	1,230,016	43,310
NOVEMBER.....	3,991,165	18.55	3,941,682	2,697,598	18.05	1,244,084	49,483
DECEMBER.....	3,578,656	17.97	3,546,317	2,396,598	17.61	1,149,719	32,338

NOTE: All other energy products include crude petroleum derivatives to be refined, gasoline including motor fuels, jet fuel, kerosene, distillate fuel oil, residual fuel oil, propane and butane gas, naphthas and liquid petroleum derivatives, n.e.s.
Nonenergy products include lubricating oil, lubricating greases, paraffin and other mineral waxes, asphalt, and other petroleum products.

EXHIBIT 13. GENERAL IMPORTS (CUSTOMS VALUE) OF PETROLEUM, NOT SEASONALLY ADJUSTED: 1988 AND 1987

Details may not equal totals due to rounding and other statistical procedures.

PERIOD	TOTAL	BARRELS PER DAY	ENERGY PRODUCTS				NONENERGY PRODUCTS TOTAL
			TOTAL	CRUDE PETROLEUM		ALL OTHER ENERGY PRODUCTS	
				TOTAL	BARRELS PER DAY		
Net quantity (thousands of barrels)							
1988							
JANUARY-OCTOBER.....	2,248,501	7,372	2,229,120	1,563,309	5,126	665,812	19,381
JANUARY.....	214,691	6,926	213,575	141,507	4,565	72,068	1,116
FEBRUARY.....	232,502	8,017	231,205	152,084	5,244	79,121	1,297
MARCH.....	206,268	6,654	204,710	145,138	4,682	59,572	1,558
APRIL.....	213,506	7,117	211,637	146,548	4,885	65,089	1,868
MAY.....	240,450	7,756	238,558	173,098	5,584	65,460	1,893
JUNE.....	220,784	7,359	218,181	165,471	5,516	52,710	2,603
JULY.....	216,803	6,994	214,657	152,271	4,912	62,386	2,147
AUGUST.....	244,120	7,875	241,997	163,201	5,265	78,796	2,124
SEPTEMBER.....	226,243	7,541	224,021	157,823	5,261	66,198	2,222
OCTOBER.....	233,133	7,520	230,579	166,167	5,360	64,412	2,554
NOVEMBER.....							
DECEMBER.....							
1987							
JANUARY-DECEMBER.....	2,470,578	6,769	2,446,135	1,744,977	4,781	701,158	24,443
JANUARY-OCTOBER.....	2,056,290	6,764	2,035,335	1,459,417	4,801	575,918	20,955
JANUARY.....	166,458	5,370	165,082	120,578	3,890	44,504	1,376
FEBRUARY.....	197,255	7,045	196,238	129,293	4,618	66,945	1,017
MARCH.....	185,678	5,990	184,044	122,371	3,947	61,673	1,634
APRIL.....	168,919	5,631	165,804	115,176	3,839	50,628	3,114
MAY.....	191,549	6,179	189,855	142,168	4,586	47,687	1,695
JUNE.....	214,739	7,158	212,502	153,260	5,109	59,242	2,237
JULY.....	243,023	7,839	240,660	173,906	5,610	66,754	2,364
AUGUST.....	243,380	7,851	240,817	178,446	5,756	62,371	2,564
SEPTEMBER.....	212,148	7,072	209,166	155,962	5,199	53,204	2,982
OCTOBER.....	233,140	7,521	231,167	168,257	5,428	62,910	1,972
NOVEMBER.....	215,135	7,171	212,956	149,456	4,982	63,500	2,179
DECEMBER.....	199,153	6,424	197,844	136,105	4,390	61,739	1,309

PERIOD	TOTAL	UNIT PRICE (dollars)	ENERGY PRODUCTS				NONENERGY PRODUCTS TOTAL
			TOTAL	CRUDE PETROLEUM		ALL OTHER ENERGY PRODUCTS	
				TOTAL	UNIT PRICE (dollars)		
Value (thousands of dollars)							
1988							
JANUARY-OCTOBER.....	32,634,451	14.51	32,313,584	21,965,763	14.05	10,347,820	320,867
JANUARY.....	3,342,822	15.57	3,317,659	2,169,753	15.33	1,147,906	25,163
FEBRUARY.....	3,555,982	15.29	3,527,249	2,312,408	15.20	1,214,841	28,732
MARCH.....	3,002,417	14.56	2,971,218	2,066,842	14.24	904,376	31,198
APRIL.....	3,113,305	14.58	3,084,560	2,081,852	14.21	1,002,708	28,745
MAY.....	3,682,077	15.31	3,645,442	2,543,098	14.69	1,102,344	36,635
JUNE.....	3,340,324	15.13	3,305,404	2,428,877	14.68	876,527	34,920
JULY.....	3,175,047	14.64	3,141,164	2,134,222	14.02	1,006,942	33,883
AUGUST.....	3,440,612	14.09	3,405,100	2,183,883	13.38	1,221,217	35,512
SEPTEMBER.....	3,065,877	13.55	3,028,723	2,064,925	13.08	963,798	37,155
OCTOBER.....	2,915,987	12.51	2,887,065	1,979,904	11.92	907,161	28,923
NOVEMBER.....							
DECEMBER.....							
1987							
JANUARY-DECEMBER.....	42,285,408	17.12	41,858,899	29,320,513	16.80	12,538,386	426,509
JANUARY-OCTOBER.....	35,169,766	17.10	34,816,635	24,520,563	16.80	10,296,072	353,131
JANUARY.....	2,389,834	14.36	2,369,019	1,670,868	13.86	698,147	20,819
FEBRUARY.....	3,170,119	16.07	3,147,475	2,000,491	15.47	1,146,984	22,643
MARCH.....	3,014,197	16.23	2,982,503	1,941,812	15.87	1,040,691	31,694
APRIL.....	2,831,755	16.76	2,801,583	1,908,866	16.57	892,717	30,173
MAY.....	3,286,724	17.16	3,260,310	2,405,578	16.92	854,732	26,414
JUNE.....	3,814,905	17.77	3,772,771	2,653,680	17.31	1,119,091	42,133
JULY.....	4,409,792	18.15	4,366,158	3,091,110	17.77	1,275,048	43,634
AUGUST.....	4,461,008	18.33	4,415,542	3,224,968	18.07	1,190,574	45,466
SEPTEMBER.....	3,709,571	17.49	3,658,051	2,727,461	17.49	930,590	51,520
OCTOBER.....	4,081,861	17.51	4,043,228	2,895,730	17.21	1,147,498	38,633
NOVEMBER.....	3,774,234	17.54	3,730,085	2,559,393	17.12	1,170,692	44,149
DECEMBER.....	3,341,409	16.78	3,312,179	2,240,558	16.46	1,071,621	29,230

NOTE: All other energy products include crude petroleum derivatives to be refined, gasoline including motor fuels, jet fuel, kerosene, distillate fuel oil, residual fuel oil, propane and butane gas, naphthas and liquid petroleum derivatives, n.e.s.
Nonenergy products include lubricating oil, lubricating greases, paraffin and other mineral waxes, asphalt, and other petroleum products.

EXHIBIT 14. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (C.I.F. VALUE) AND MERCHANDISE TRADE BALANCE--
COUNTRIES, ECONOMIC AND GEOGRAPHIC AREAS, NOT SEASONALLY ADJUSTED: 1988 AND 1987

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures.
(X) - Not applicable. (R) - Revised.

ITEM	TRADE BALANCE			EXPORTS (F.A.S. VALUE)			IMPORTS (C.I.F. VALUE)		
	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988
TOTAL	-11,752.4	(R)-10,698.1	-114,348.7	28,476.8	(R)27,236.6	264,900.4	40,229.2	(R)37,934.7	379,248.9
DEVELOPED COUNTRIES	-7,136.2	-5,464.0	-65,501.7	18,383.5	(R)17,502.0	170,281.3	25,519.7	22,966.0	235,783.0
CANADA TOTAL	-960.7	-892.7	-9,300.0	6,410.6	(R) 6,162.9	58,989.0	7,371.3	7,055.6	68,289.0
COMPILED	(X)	(X)	(X)	4,892.3	5,420.3	50,961.7	(X)	(X)	(X)
UNDOCUMENTED	(X)	(X)	(X)	1,518.3	(R) 742.6	8,027.3	(X)	(X)	(X)
WESTERN EUROPE	-1,146.2	-878.7	-13,410.2	7,752.1	7,216.1	72,447.6	8,898.3	8,094.8	85,857.8
EEC	-552.7	-463.6	-10,048.7	6,795.6	6,332.2	62,556.0	7,348.3	6,795.8	72,604.7
UNITED KINGDOM	130.5	76.7	20.9	1,698.6	1,507.8	15,249.1	1,568.1	1,431.1	15,228.2
FED. REP. GERMANY	-913.1	-1,027.9	-10,413.9	1,284.3	1,178.5	11,902.2	2,197.4	2,206.4	22,316.1
FRANCE	-149.8	-79.4	-2,206.4	682.0	901.1	8,327.3	1,031.8	980.5	10,533.7
ITALY	-401.9	-205.8	-4,508.4	630.6	551.8	5,599.3	1,032.5	757.6	10,107.7
JAPAN	-5,518.2	-4,084.3	-44,762.7	3,206.1	3,244.5	31,148.8	8,724.3	7,328.8	75,911.5
AUSTRALIA, NEW ZEALAND, REP OF SOUTH AFRICA	489.0	391.8	1,971.2	1,014.7	878.5	7,695.9	525.7	486.7	5,724.7
DEVELOPING COUNTRIES	-4,275.5	-4,427.6	-46,766.9	9,382.4	9,523.1	87,713.1	13,657.9	13,950.7	134,480.0
MEXICO	31.8	-37.0	-2,766.7	2,043.6	1,935.6	16,747.4	2,011.8	1,972.6	19,514.1
BRAZIL	-518.8	-584.0	-4,844.7	314.4	330.8	3,546.8	833.2	914.8	8,391.5
NEWLY INDUSTRIALIZED COUNTRIES (NICs)	-2,984.8	-3,076.9	-25,977.0	2,788.0	2,891.3	29,023.4	5,772.8	5,968.2	55,000.4
SINGAPORE	-253.4	-200.5	-2,034.0	505.4	496.4	4,685.1	758.8	696.9	6,719.1
HONG KONG	-525.8	-476.4	-4,149.0	523.7	534.7	4,725.2	1,049.5	1,011.1	8,874.2
TAIWAN	-1,375.9	-1,415.4	-11,611.0	811.3	898.3	10,370.8	2,187.2	2,313.7	21,981.8
REP. OF KOREA	-829.8	-984.6	-8,183.1	947.6	961.9	9,242.2	1,777.4	1,946.5	17,425.3
EGYPT	144.6	179.1	1,688.0	159.6	197.0	1,889.8	15.0	17.9	201.8
OPEC	-768.2	-687.2	-9,710.5	1,239.8	1,343.0	11,434.4	2,008.0	2,030.2	21,144.9
VENEZUELA	-17.9	3.3	-989.8	411.8	469.4	3,728.8	429.7	466.1	4,718.6
INDONESIA	-242.1	-184.9	-2,066.6	88.3	95.7	842.1	330.4	280.6	2,908.7
SAUDI ARABIA	-166.1	-28.9	-2,086.5	314.7	377.5	3,127.3	480.8	406.4	5,213.8
NIGERIA	-254.1	-233.6	-2,744.1	32.4	38.9	300.4	286.5	272.5	3,044.5
OTHER DEVELOPING	-180.0	-221.5	-5,156.1	2,837.0	2,825.5	25,071.3	3,017.0	3,047.0	30,227.4
COMMUNIST AREAS IN EUROPE & ASIA	-380.6	-405.3	-2,444.0	671.1	616.9	7,029.7	1,051.7	1,022.2	9,473.7
U.S.S.R.	176.5	73.7	1,760.3	215.0	115.9	2,228.1	38.5	42.2	467.8
CHINA	-499.0	-440.3	-3,481.0	402.6	419.6	4,049.8	901.6	859.9	7,530.8
OTHER	-58.0	-38.7	-723.4	53.6	81.4	751.7	111.6	120.1	1,475.1
TIMING ADJUSTMENTS	(X)	-436.3	204.3	(X)	-440.5	-283.4	(X)	-4.2	-487.7

ITEM	TRADE BALANCE			EXPORTS (F.A.S. VALUE)			IMPORTS (C.I.F. VALUE)		
	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987
TOTAL	-16,986.7	-13,975.4	-143,834.3	22,777.8	21,183.7	206,528.8	39,764.5	35,159.1	350,363.1
DEVELOPED COUNTRIES	-10,041.8	-7,523.4	-83,807.3	14,320.7	13,680.4	134,204.8	24,362.5	21,203.8	218,012.1
CANADA TOTAL	-1,333.3	-1,286.8	-9,812.3	5,273.1	4,844.7	48,761.7	6,606.4	6,131.5	58,574.0
COMPILED	(X)	(X)	(X)	4,475.3	4,844.7	43,734.8	(X)	(X)	(X)
UNDOCUMENTED	(X)	(X)	(X)	797.8	(Z)	5,026.9	(X)	(X)	(X)
WESTERN EUROPE	-3,001.8	-1,709.1	-25,075.8	6,029.9	5,797.0	56,598.4	9,031.7	7,506.1	81,674.2
EEC	-2,315.0	-1,401.5	-19,957.6	5,313.5	5,000.0	49,378.0	7,628.5	6,401.5	69,335.6
UNITED KINGDOM	-393.7	-324.0	-3,157.6	1,213.5	1,171.6	11,577.3	1,607.2	1,495.6	14,734.9
FED. REP. GERMANY	-1,325.4	-985.9	-13,298.6	1,064.7	971.2	9,528.0	2,390.1	1,963.1	22,826.6
FRANCE	-347.7	-176.9	-2,734.2	728.1	649.2	6,382.8	1,075.8	826.1	9,117.0
ITALY	-634.0	-342.2	-5,162.2	441.4	423.6	4,496.5	1,075.4	765.8	9,658.7
JAPAN	-5,864.2	-4,632.4	-50,106.8	2,392.4	2,424.3	22,609.6	8,256.6	7,056.7	72,796.4
AUSTRALIA, NEW ZEALAND, REP OF SOUTH AFRICA	157.5	104.9	1,267.7	625.3	614.4	5,235.2	467.8	509.5	4,967.5
DEVELOPING COUNTRIES	-7,285.2	-6,220.4	-58,878.8	6,935.1	6,885.2	65,543.8	14,220.3	13,105.6	124,422.6
MEXICO	-633.5	-417.2	-5,105.9	1,258.2	1,327.7	11,885.6	1,891.7	1,744.9	16,991.5
BRAZIL	-492.0	-336.3	-3,627.8	387.7	398.3	3,268.2	879.7	734.6	6,896.0
NEWLY INDUSTRIALIZED COUNTRIES (NICs)	-3,773.6	-3,537.7	-32,615.7	1,877.2	1,895.3	18,466.6	5,650.8	5,433.0	51,082.3
SINGAPORE	-248.8	-301.9	-1,934.5	353.3	311.7	3,271.6	602.1	613.6	5,206.1
HONG KONG	-724.3	-632.2	-5,633.1	334.1	373.7	3,178.9	1,058.4	1,005.9	8,812.0
TAIWAN	-1,782.5	-1,790.7	-16,678.8	577.2	558.6	5,451.6	2,349.3	2,349.3	22,130.4
REP. OF KOREA	-1,018.0	-812.9	-8,369.3	612.6	651.3	6,564.5	1,630.6	1,464.2	14,933.8
EGYPT	94.7	33.3	1,537.0	129.6	83.6	1,929.7	34.9	50.3	392.7
OPEC	-1,732.5	-1,556.7	-12,677.0	1,014.4	879.7	8,819.8	2,746.9	2,436.4	21,496.8
VENEZUELA	-241.0	-131.9	-2,169.5	317.3	318.5	2,831.1	558.3	450.4	5,000.6
INDONESIA	-222.5	-228.6	-2,526.8	72.7	64.9	612.6	295.3	293.5	3,139.4
SAUDI ARABIA	-237.4	-190.5	-1,364.9	409.3	277.2	2,748.9	646.7	467.7	4,113.8
NIGERIA	-320.2	-341.5	-2,803.9	19.7	19.5	237.1	339.9	361.0	3,041.0
OTHER DEVELOPING	-748.3	-405.8	-6,389.4	2,268.0	2,300.6	21,173.9	3,016.3	2,706.4	27,563.3
COMMUNIST AREAS IN EUROPE & ASIA	-318.3	-341.0	-3,171.5	482.2	411.1	4,456.3	800.5	752.1	7,627.8
U.S.S.R.	14.8	24.2	753.2	54.3	64.2	1,114.7	39.5	40.0	361.5
CHINA	-244.6	-298.5	-3,148.8	376.9	304.1	2,750.3	621.5	602.6	5,891.1
OTHER	-88.5	-66.7	-783.9	51.0	42.8	591.3	139.5	109.5	1,375.2
TIMING ADJUSTMENTS	644.5	100.4	1,962.6	1,025.6	198.0	2,263.2	381.1	97.6	300.6

NOTES: The export totals reflect shipments of certain grains and oilseeds that are not reflected in the country/area totals.

Newly Industrialized Countries (NICs)--Singapore, Hong Kong, Taiwan and the Republic of Korea.

EXHIBIT 15. EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (CUSTOMS VALUE) AND MERCHANDISE TRADE BALANCE--
COUNTRIES, ECONOMIC AND GEOGRAPHIC AREAS, NOT SEASONALLY ADJUSTED: 1988 AND 1987

In millions of dollars. Details may not equal totals due to rounding and other statistical procedures.
(X) - Not applicable. (R) - Revised.

ITEM	TRADE BALANCE			EXPORTS (F.A.S. VALUE)			IMPORTS (CUSTOMS VALUE)		
	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988	OCTOBER 1988	SEPTEMBER 1988	CUMULATIVE TO DATE 1988
TOTAL	-10,208.1	(R)-9,222.5	-98,925.0	28,476.8	(R)27,236.6	264,900.4	38,684.9	(R)36,459.1	363,825.4
DEVELOPED COUNTRIES	-6,379.1	-4,787.6	-58,145.0	18,383.5	(R)17,502.0	170,281.3	24,762.6	22,289.6	228,426.3
CANADA TOTAL	-922.0	-854.5	-10,451.8	6,410.6	(R) 6,162.9	58,989.0	7,332.6	7,017.4	67,847.7
COMPILED	(X)	(X)	(X)	4,892.3	5,420.3	50,961.7	(X)	(X)	(X)
UNDOCUMENTED	(X)	(X)	(X)	1,518.3	(R) 742.6	8,027.3	(X)	(X)	(X)
WESTERN EUROPE	-769.7	-533.4	-9,697.5	7,752.1	7,216.1	72,447.6	8,521.8	7,749.5	82,145.1
EEC	-242.9	-179.2	-6,960.4	6,795.6	6,332.2	62,556.0	7,038.5	6,511.4	69,516.4
UNITED KINGDOM	189.5	126.8	593.7	1,698.6	1,507.8	15,249.1	1,509.1	1,381.0	14,655.4
FED. REP. GERMANY	-840.5	-953.9	-9,656.7	1,284.3	1,178.5	11,902.2	2,124.8	2,132.4	21,558.9
FRANCE	-110.9	-43.8	-1,821.1	882.0	901.1	8,327.3	992.9	944.9	10,148.4
ITALY	-347.5	-165.5	-3,956.4	630.6	551.8	5,599.3	978.1	717.3	9,555.7
JAPAN	-5,211.1	-3,828.9	-42,010.6	3,206.1	3,244.5	31,148.8	8,417.2	7,073.4	73,159.4
AUSTRALIA, NEW ZEALAND, REP OF SOUTH AFRICA	523.8	429.3	2,421.8	1,014.7	878.5	7,695.9	490.9	449.2	5,274.1
DEVELOPING COUNTRIES	-3,571.9	-3,700.3	-39,468.8	9,382.4	9,523.1	87,713.1	12,954.3	13,223.4	127,181.9
MEXICO	54.1	-16.0	-2,547.2	2,043.6	1,935.6	16,747.4	1,989.5	1,951.6	19,294.6
BRAZIL	-465.4	-526.2	-4,292.7	314.4	330.8	3,546.8	779.8	857.0	7,839.5
NEWLY INDUSTRIALIZED COUNTRIES (NICs)	-2,711.0	-2,795.0	-23,252.0	2,788.0	2,891.3	29,023.4	5,499.0	5,686.3	52,275.4
SINGAPORE	-231.2	-182.7	-1,848.7	505.4	496.4	4,685.1	736.6	679.1	6,533.8
HONG KONG	-471.3	-424.4	-3,682.0	523.7	534.7	4,725.2	995.0	959.1	8,407.2
TAIWAN	-1,261.2	-1,295.7	-10,384.7	811.3	898.3	10,370.8	2,072.5	2,194.0	20,755.5
REP. OF KOREA	-747.4	-892.1	-7,336.6	947.6	961.9	9,242.2	1,695.0	1,854.0	16,578.8
EGYPT	146.2	181.1	1,706.3	159.6	197.0	1,889.8	13.4	15.9	183.5
OPEC	-598.6	-518.4	-7,979.3	1,239.8	1,343.0	11,434.4	1,838.4	1,861.4	19,413.7
VENEZUELA	8.7	31.7	-693.3	411.8	469.4	3,728.8	403.1	437.7	4,422.1
INDONESIA	-212.8	-157.5	-1,812.0	88.3	95.7	842.1	301.1	253.2	2,654.1
SAUDI ARABIA	-119.1	15.8	-1,536.7	314.7	377.5	3,127.3	433.8	361.7	4,664.0
NIGERIA	-232.2	-215.3	-2,548.3	32.4	38.9	300.4	264.6	254.2	2,848.7
OTHER DEVELOPING	2.8	-25.7	-3,103.9	2,837.0	2,825.5	25,071.3	2,834.2	2,851.2	28,175.2
COMMUNIST AREAS IN EUROPE & ASIA	-296.9	-324.3	-1,640.7	671.1	616.9	7,029.7	968.0	941.2	8,670.4
U.S.S.R.	180.2	77.0	1,813.0	215.0	115.9	2,228.1	34.8	38.9	415.1
CHINA	-429.2	-372.8	-2,865.2	402.6	419.6	4,049.8	831.8	792.4	6,915.0
OTHER	-47.8	-28.6	-588.6	53.6	81.4	751.7	101.4	110.0	1,340.3
TIMING ADJUSTMENTS	(X)	-445.4	169.7	(X)	-440.5	-283.4	(X)	4.9	-453.1

ITEM	TRADE BALANCE			EXPORTS (F.A.S. VALUE)			IMPORTS (CUSTOMS VALUE)		
	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987	OCTOBER 1987	SEPTEMBER 1987	CUMULATIVE TO DATE 1987
TOTAL	-15,297.8	-12,483.8	-128,742.6	22,777.8	21,183.7	206,528.8	38,075.6	33,667.5	335,271.4
DEVELOPED COUNTRIES	-9,255.2	-6,836.1	-76,562.7	14,320.7	13,680.4	134,204.8	23,575.9	20,516.5	210,767.5
CANADA TOTAL	-1,299.9	-1,250.0	-9,473.4	5,273.1	4,844.7	48,761.7	6,573.0	6,094.7	58,235.1
COMPILED	(X)	(X)	(X)	4,475.3	4,844.7	43,734.8	(X)	(X)	(X)
UNDOCUMENTED	(X)	(X)	(X)	797.8	(Z)	5,026.9	(X)	(X)	(X)
WESTERN EUROPE	-2,612.5	-1,376.5	-21,441.9	6,029.9	5,797.0	56,598.4	8,642.4	7,173.5	78,040.3
EEC	-1,989.9	-1,123.6	-16,936.3	5,313.5	5,000.0	49,378.0	7,303.4	6,123.6	66,314.3
UNITED KINGDOM	-337.6	-269.4	-2,626.6	1,213.5	1,171.6	11,577.3	1,551.1	1,441.0	14,203.9
FED. REP. GERMANY	-1,242.0	-912.6	-12,513.0	1,064.7	977.2	9,528.0	2,306.7	1,889.8	22,041.0
FRANCE	-308.2	-143.7	-2,370.4	728.1	649.2	6,382.8	1,036.3	792.9	8,753.2
ITALY	-578.1	-300.0	-4,617.7	441.4	423.6	4,496.5	1,019.5	723.6	9,114.2
JAPAN	-5,539.6	-4,356.6	-47,314.2	2,392.4	2,424.3	22,609.6	7,932.0	6,780.9	69,923.8
AUSTRALIA, NEW ZEALAND, REP OF SOUTH AFRICA	196.7	147.0	1,667.0	625.3	614.4	6,235.2	428.6	467.4	4,568.2
DEVELOPING COUNTRIES	-6,476.9	-5,486.6	-51,733.1	6,935.1	6,885.2	65,543.8	13,412.0	12,371.8	117,276.9
MEXICO	-613.2	-396.7	-4,894.5	1,258.2	1,327.7	11,885.6	1,871.4	1,724.4	16,780.1
BRAZIL	-433.7	-284.5	-3,159.7	387.7	398.3	3,268.2	821.4	682.8	6,427.9
NEWLY INDUSTRIALIZED COUNTRIES (NICs)	-3,448.8	-3,227.3	-29,568.2	1,877.2	1,895.3	18,466.6	5,326.0	5,122.6	48,034.8
SINGAPORE	-231.1	-283.5	-1,777.1	353.3	311.7	3,271.6	584.4	595.2	5,048.7
HONG KONG	-660.6	-572.2	-5,099.1	334.1	373.7	3,178.9	994.7	945.9	8,278.0
TAIWAN	-1,629.7	-1,638.3	-15,164.0	577.2	558.6	5,451.6	2,206.9	2,196.9	20,615.6
REP. OF KOREA	-927.4	-733.3	-7,528.0	612.6	651.3	6,564.5	1,540.0	1,384.6	14,092.5
EGYPT	97.2	36.5	1,562.3	129.6	83.6	1,929.7	32.4	47.1	367.4
OPEC	-1,532.6	-1,384.8	-11,190.1	1,014.4	879.7	8,819.8	2,547.0	2,264.5	20,009.9
VENEZUELA	-214.7	-110.3	-1,913.4	317.3	318.5	2,831.1	532.0	428.8	4,744.5
INDONESIA	-197.3	-204.6	-2,248.0	72.7	64.9	612.6	270.0	269.5	2,860.6
SAUDI ARABIA	-161.2	-140.5	-982.7	409.3	277.2	2,748.9	570.5	417.7	3,731.6
NIGERIA	-304.1	-325.4	-2,645.8	19.7	19.5	237.1	323.8	344.9	2,882.9
OTHER DEVELOPING	-545.8	-229.8	-4,482.9	2,268.0	2,300.6	21,173.9	2,813.8	2,530.4	25,656.8
COMMUNIST AREAS IN EUROPE & ASIA	-243.9	-273.2	-2,482.1	482.2	411.1	4,456.3	726.1	684.3	6,938.4
U.S.S.R.	19.7	28.0	787.4	54.3	64.2	1,114.7	34.6	36.2	327.3
CHINA	-191.0	-245.5	-2,612.9	376.9	304.1	2,750.3	567.9	549.6	5,363.2
OTHER	-72.6	-55.7	-656.6	51.0	42.8	591.3	123.6	98.5	1,247.9
TIMING ADJUSTMENTS	664.1	103.1	1,974.6	1,025.6	198.0	2,263.2	361.5	94.9	288.6

NOTES: The export totals reflect shipments of certain grains and oilseeds that are not reflected in the country/area totals.

Newly Industrialized Countries (NICs)--Singapore, Hong Kong, Taiwan and the Republic of Korea.

EXHIBIT 16 . EXPORTS (F.A.S. VALUE), GENERAL IMPORTS (C.I.F. AND CUSTOMS VALUES), AND MERCHANDISE TRADE BALANCE, SEASONALLY ADJUSTED THREE MONTH-MOVING AVERAGES: JANUARY 1986 TO OCTOBER 1988

In millions of dollars. (R) -- Revised.

PERIOD	THREE -MONTH MOVING AVERAGE				
	TRADE BALANCE		EXPORTS, F.A.S. VALUE	IMPORTS, C.I.F. VALUE	IMPORTS, CUSTOMS VALUE
	C.I.F.	CUSTOMS			
1986					
JANUARY	---	---	---	---	---
FEBRUARY	---	---	---	---	---
MARCH	-12,459.5	-11,171.5	18,358.7	30,818.2	29,530.2
APRIL	-12,364.4	-10,999.0	18,426.8	30,791.2	29,425.8
MAY	-12,606.0	-11,005.9	18,594.5	31,200.5	29,600.4
JUNE	-12,211.1	-10,604.9	19,274.1	31,485.2	29,879.0
JULY	-12,109.7	-10,509.3	19,597.1	31,706.9	30,106.5
AUGUST	-12,630.7	-11,104.5	19,246.1	31,876.8	30,350.6
SEPTEMBER	-13,672.0	-12,282.3	18,660.8	32,332.8	30,943.1
OCTOBER	-13,638.8	-12,277.7	18,659.9	32,298.6	30,937.6
NOVEMBER	-14,005.0	-12,683.7	19,101.6	33,106.6	31,785.3
DECEMBER	-13,369.7	-12,034.3	19,425.9	32,795.6	31,460.3
1987					
JANUARY	-14,044.5	-12,714.5	18,983.4	33,027.9	31,697.9
FEBRUARY	-13,668.0	-12,423.3	18,994.4	32,662.4	31,417.7
MARCH	-14,027.9	-12,620.5	19,300.1	33,328.1	31,920.7
APRIL	-13,529.2	-12,057.4	19,967.4	33,496.6	32,024.9
MAY	-13,711.8	-11,975.5	20,278.9	33,990.7	32,254.4
JUNE	-14,123.1	-12,379.3	20,590.7	34,713.8	32,970.0
JULY	-14,336.9	-12,584.8	21,267.6	35,604.5	33,852.4
AUGUST	-14,671.5	-13,037.1	21,474.8	36,146.3	34,511.9
SEPTEMBER	-14,297.1	-12,857.6	21,709.1	36,006.2	34,566.7
OCTOBER	-14,856.4	-13,424.0	21,589.7	36,446.1	35,013.7
NOVEMBER	-14,371.2	-12,961.7	22,326.7	36,697.8	35,288.3
DECEMBER	-14,325.2	-12,848.9	23,107.4	37,432.6	35,956.3
1988					
JANUARY	-12,896.9	-11,474.8	23,911.9	36,808.8	35,386.7
FEBRUARY	-13,161.0	-11,804.7	24,386.3	37,547.3	36,191.0
MARCH	-12,463.0	-10,915.6	25,294.5	37,757.4	36,210.1
APRIL	-12,140.6	-10,591.2	25,808.0	37,948.6	36,399.2
MAY	-10,589.6	-9,273.2	26,794.7	37,384.3	36,067.9
JUNE	-11,093.8	-9,571.7	26,596.7	37,690.5	36,168.4
JULY	-10,816.6	-9,311.9	26,759.1	37,575.7	36,071.0
AUGUST	-11,652.7	-10,109.8	26,763.9	38,416.6	36,873.7
SEPTEMBER (R)	-10,805.1	-9,284.4	27,332.5	38,137.6	36,616.9
OCTOBER	-11,096.4	-9,571.8	27,717.8	38,814.2	37,289.6

THE CHAIRMAN OF THE
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON

December 14, 1988

MEMORANDUM FOR WHITE HOUSE SENIOR STAFF

FROM:

BERYL W. SPRINKEL

Beryl W. Sprinkel

SUBJECT:

Industrial Production in November

This morning at 9:15 a.m. the Federal Reserve will release the Index of Industrial Production for November.

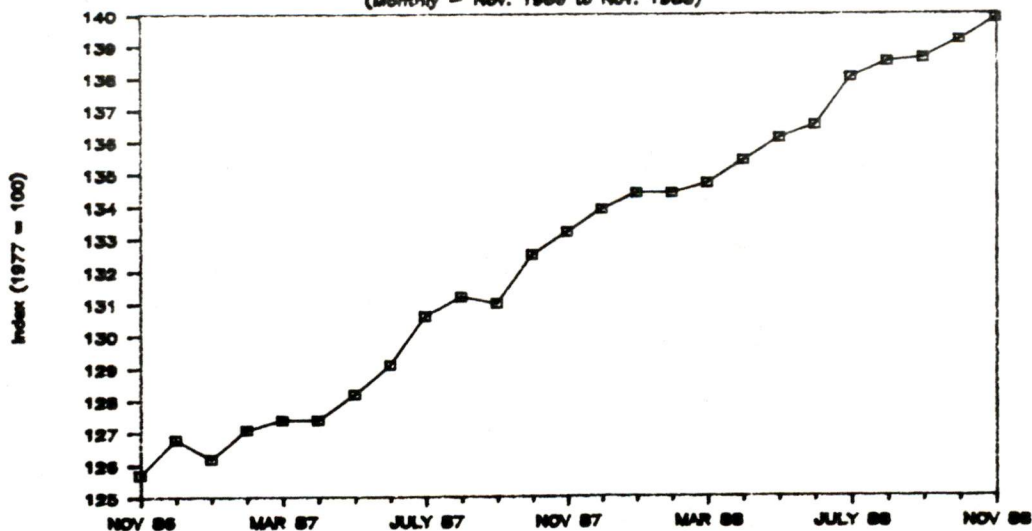
Total industrial production rose 0.5 percent in November, after an upward revised increase of 0.5 percent in October. Production increases were widespread in November; production in both the mining and manufacturing industries rose 0.6 percent and production at utilities rose 0.4 percent.

Production of final products rose 0.2 percent in November. Consumer products rose 0.3 percent, after a strong 1.2 percent increase in October. Business equipment production increased 0.4 percent in November, after no growth in October. Production of intermediate products rose 0.6 percent, with continued strong growth in construction supplies production.

The growth in total industrial production in November continued its trend of the past year. Since November, 1987, total industrial production has risen a solid 5.1 percent.

TOTAL INDUSTRIAL PRODUCTION

(Monthly - Nov. 1986 to Nov. 1988)



FEDERAL RESERVE statistical release



G.12.3

For release at 9:15 a.m. (EST)
December 14, 1988

INDUSTRIAL PRODUCTION

Industrial production increased 0.5 percent in November after rising a revised 0.5 percent in October and 0.1 percent in September. In November, the output of materials, business equipment (other than commercial equipment), and construction supplies led the advance. At 139.9 percent of the 1977 average, the total index in November was 5.1 percent higher than a year ago.

Market Groupings

Output of consumer goods increased 0.3 percent in November as production of light trucks and nondurable goods posted gains. However, auto assemblies, at an annual rate of 7.6 million units, were down slightly from October. Moreover, output of home goods, such as appliances, declined in November after rising sharply in October. Total production of business equipment advanced 0.4 percent in November as all major components other than commercial equipment continued to advance rapidly. Output of commercial equipment, which includes computers, decreased for the third successive month. Gains in materials production were widespread in November; the most notable advances occurred in the output of parts for consumer durables, basic metals, chemicals, and coal.

Industry Groupings

Manufacturing output increased 0.5 percent as most major industries posted gains; the only significant decline was in petroleum refining. Mining output rose 0.6 percent, and production at utilities increased 0.4 percent.

Industrial Production: Summary

Seasonally adjusted

Item	Index, 1977 = 100		Monthly percent change					Current month from a year ago
	1988		JUL	AUG	SEP	OCT	NOV	
	OCT	NOV						
Total	139.3	139.9	1.1	.3	.1	.5	.5	5.1
Market Groupings								
Products, total	148.2	148.7	.8	.5	.1	.5	.3	5.4
Final products	146.7	146.9	.7	.5	.0	.6	.2	5.5
Consumer goods	136.4	136.8	.9	.6	-0.1	1.2	.3	5.7
Durable goods	129.1	128.9	.0	.3	.5	2.2	-0.1	4.1
Nondurable goods	139.2	139.7	1.2	.7	-0.3	.9	.4	6.3
Business equipment	160.7	161.3	.8	.5	.4	.0	.4	8.8
Defense and space	184.4	184.3	.2	.0	-0.2	-0.1	-0.1	-2.3
Intermediate products	153.8	154.8	1.0	.5	.5	.5	.6	5.1
Construction supplies	139.6	140.7	.6	-0.2	.4	.7	.8	4.8
Materials	127.1	128.0	1.6	.1	.0	.5	.7	4.5
Industry Groupings								
Manufacturing	145.3	146.0	1.1	.3	.3	.6	.5	5.9
Durable	144.7	145.4	.9	.2	.4	.6	.5	6.4
Nondurable	146.2	146.8	1.4	.3	.1	.6	.4	5.1
Mining	102.6	103.2	1.3	-0.5	-0.2	-0.9	.6	-1.4
Utilities	113.5	114.0	1.0	2.9	-4.2	.6	.4	.7

Capacity Utilization

Capacity utilization in total industry for November 1988 was estimated at 84.2 percent, up 0.2 percentage point from October. In manufacturing, capacity utilization for November was 84.5 percent, 0.2 percentage point higher than in October, and 2.3 percentage points above a year ago. Detailed data for capacity utilization are shown separately, in release G.3.

Revisions

Total Industrial Production
(Estimates as shown last month and current estimates)

Month	Index (1977=100)		Percentage change from previous month	
	<u>Previous</u>	<u>Current</u>	<u>Previous</u>	<u>Current</u>
August	138.4	138.5	.3	.3
September	138.7	138.6	.2	.1
October	139.2	139.3	.4	.5
November	NA	139.9	NA	.5

NA--not applicable.

FEDERAL RESERVE



Industrial Production

INDUSTRIAL PRODUCTION

NOVEMBER DATA

Seasonally adjusted, ratio scale, 1977=100

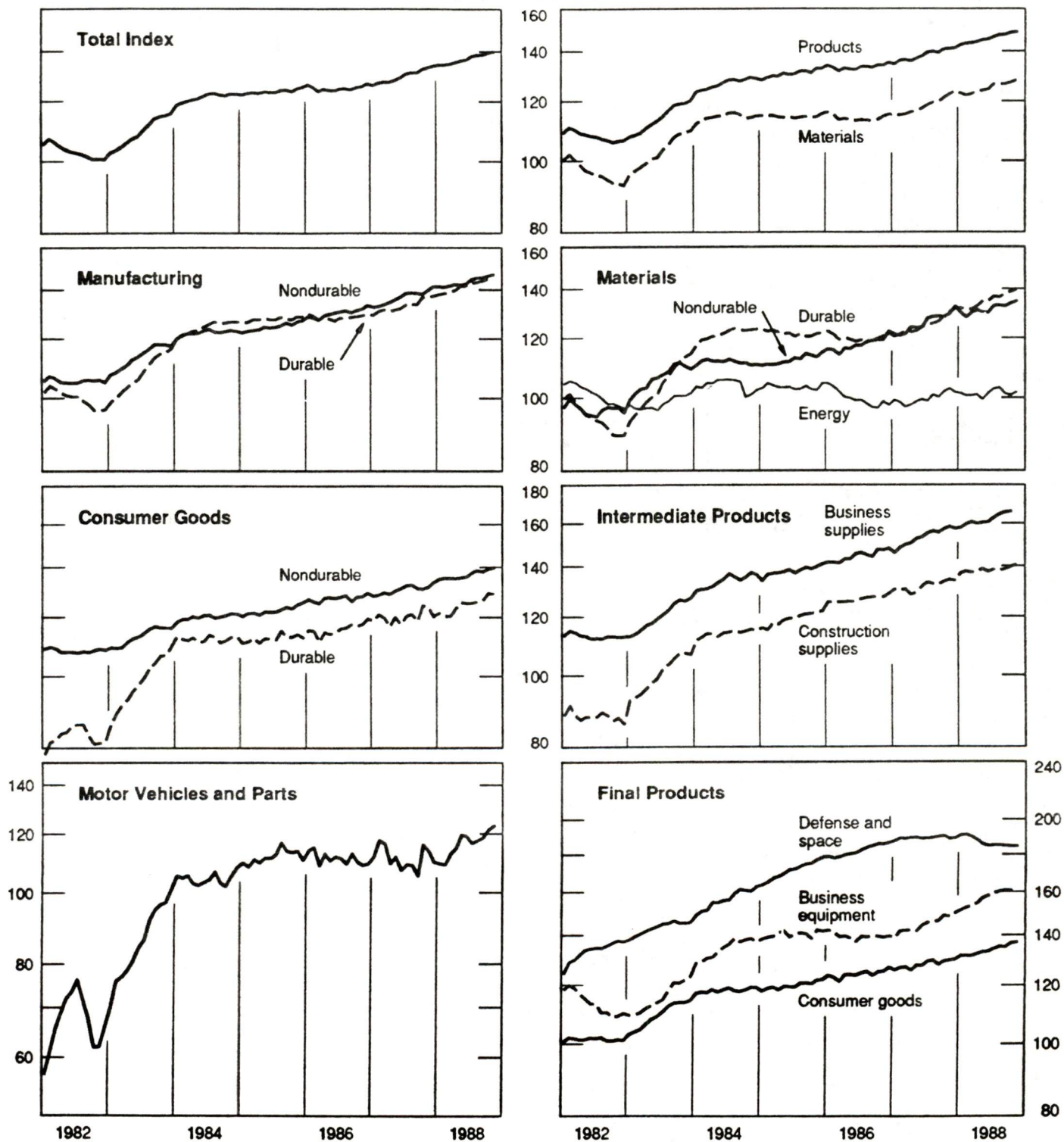


Table 1A

INDUSTRIAL PRODUCTION: MARKET GROUPINGS

Seasonally adjusted, 1977 = 100

Major Market Groupings	1977 Pro-portion	1987 Ann. Avg.	1987 NOV	DEC	1988 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
TOTAL INDEX	100.00	129.8	133.2	133.9	134.4	134.4	134.7	135.4	136.1	136.5	136.0	136.5	136.6	139.3	139.9
PRODUCTS, TOTAL	57.72	138.3	141.0	141.3	142.7	143.4	143.6	144.1	145.0	145.3	146.5	147.3	147.5	148.2	148.7
FINAL PRODUCTS	44.77	136.8	139.2	139.8	141.1	141.6	141.8	142.5	143.5	144.0	145.0	145.8	145.8	146.7	146.9
CONSUMER GOODS	25.52	127.8	129.4	129.8	131.2	131.3	131.2	131.9	132.7	133.0	134.2	135.0	134.8	136.4	136.8
EQUIPMENT, TOTAL	19.25	148.9	152.2	153.1	154.3	155.3	155.9	156.5	157.7	158.5	159.4	160.1	160.4	160.2	160.4
INTERMEDIATE PRODUCTS	12.94	143.4	147.3	146.5	148.1	149.4	149.9	149.6	150.4	150.0	151.6	152.3	153.1	153.8	154.8
MATERIALS	42.28	118.2	122.5	123.7	123.0	122.1	122.5	123.6	123.9	124.5	126.4	126.5	126.5	127.1	128.0
CONSUMER GOODS	25.52	127.8	129.4	129.8	131.2	131.3	131.2	131.9	132.7	133.0	134.2	135.0	134.8	136.4	136.8
DURABLE CONSUMER GOODS	6.89	120.2	123.9	120.3	121.7	120.6	120.4	123.3	125.6	125.3	125.3	125.7	126.3	129.1	128.9
Automotive products	2.98	118.5	121.3	115.4	118.7	117.6	120.6	121.9	127.1	127.1	124.4	124.2	126.3	128.6	129.8
Autos and trucks, consumer	1.79	115.1	118.7	110.2	112.8	111.8	116.4	118.0	126.9	125.3	120.8	123.1	124.8	128.3	129.5
Autos, consumer	1.16	90.7	91.9	83.7	77.5	79.5	86.3	91.0	98.9	95.0	93.8	93.0	97.7	101.3	101.0
Trucks, consumer	0.63	160.5	168.5	129.5	178.3	171.6	172.2	168.2	178.9	174.1	170.8	179.0	175.3	178.4	
Auto parts & allied gds	1.19	123.5	125.2	123.3	127.7	126.4	126.9	127.8	127.4	129.7	129.9	125.9	128.6	129.1	130.2
Home goods	3.91	121.6	125.8	123.9	124.0	122.8	120.2	124.3	124.4	123.9	125.9	126.8	126.3	129.4	128.2
Appliances, TV & air-cond	1.24	141.5	150.1	142.7	142.2	140.6	132.8	143.2	142.2	138.0	143.3	146.5	144.9	154.4	150.1
Appliances and TV	1.19	142.1	150.5	142.6	140.9	141.4	132.7	142.2	143.0	137.1	143.8	146.1	143.7	151.9	
Carpeting & furniture	0.96	100.7	133.5	133.9	134.2	132.3	133.1	133.1	135.8	135.9	136.6	137.2	137.3	137.8	
Misc. home goods	1.71	102.0	103.9	104.8	105.2	104.7	103.9	105.7	105.2	107.0	107.4	106.8	106.8	106.6	
NONDURABLE CONSUMER GOODS	18.63	130.6	131.5	133.3	134.7	135.3	135.1	135.1	135.4	135.8	137.5	138.5	138.0	139.2	139.7
Clothing	3.34	99.4	100.3	99.6	100.3	100.7	101.5	101.6	100.1	100.8	101.7	101.2	102.0	102.0	
Consumer staples	15.29	137.4	138.3	140.7	142.3	142.9	142.5	142.5	143.1	143.5	145.3	146.6	145.8	147.3	147.9
Consumer foods & tobacco	7.80	136.3	137.3	139.2	140.3	140.8	139.4	138.3	139.2	139.3	141.1	141.3	141.0	142.4	
Nonfood staples	7.49	138.5	139.4	142.2	144.3	145.0	145.7	146.8	147.0	147.9	149.6	151.2	150.9	152.4	152.7
Consumer chem. products	2.75	162.9	163.5	167.7	170.7	171.7	172.7	175.6	177.9	179.5	181.8	183.8	185.1	186.0	
Consumer paper products	1.88	151.9	152.8	157.0	157.1	157.5	159.1	161.4	162.4	162.8	164.0	165.3	167.0	168.3	
Consumer energy	2.86	106.3	107.4	108.0	110.6	111.3	111.0	109.6	107.3	107.7	109.3	113.0	107.5	109.6	
Consumer fuel	1.44	93.1	93.2	95.4	95.4	97.0	97.9	98.9	94.3	93.0	94.6	95.5	92.5	95.7	
Residential utilities	1.42	119.8	121.8	120.7	126.0	125.8	124.5	120.5	120.6	122.6	124.4	130.9	122.8		
EQUIPMENT, TOTAL	19.25	148.9	152.2	153.1	154.3	155.3	155.9	156.5	157.7	158.5	159.4	160.1	160.4	160.2	160.4
BUSINESS & DEFENSE EQUIP.	18.01	153.6	156.6	157.8	159.2	160.3	160.8	161.4	162.7	163.5	164.6	165.2	165.7	165.5	166.0
BUSINESS EQUIPMENT	14.34	144.5	148.3	149.8	151.2	152.4	153.3	154.6	156.9	158.1	159.3	160.2	160.8	160.7	161.3
Constr., mining, & farm	2.09	62.2	66.3	67.4	67.1	67.6	68.3	70.8	71.8	72.4	73.6	73.1	73.9	74.6	75.3
Manufacturing equipment	3.27	117.9	120.6	122.2	125.4	124.9	127.7	128.3	130.3	132.4	134.0	135.5	136.8	138.3	
Power equipment	1.27	82.6	83.1	84.2	86.2	88.3	87.8	87.0	87.4	88.3	89.8	90.9	92.2	92.6	93.3
Commercial equipment	5.22	226.5	232.1	235.5	238.0	240.3	239.9	241.5	245.7	247.1	248.2	249.8	249.2	246.5	246.1
Transit equipment	2.49	108.4	111.2	109.1	108.5	108.2	111.1	112.3	115.3	115.7	115.9	115.2	116.6	119.3	120.7
DEFENSE & SPACE EQUIPMENT	3.67	188.9	188.7	188.9	190.6	191.0	189.9	187.9	185.5	184.6	184.9	184.9	184.6	184.4	184.3
INTERMEDIATE PRODUCTS	12.94	143.4	147.3	146.5	148.1	149.4	149.9	149.6	150.4	150.0	151.6	152.3	153.1	153.8	154.8
Construction supplies	5.95	131.5	134.2	133.8	136.8	137.7	137.3	137.6	138.8	137.6	138.4	138.1	138.6	139.6	140.7
Business supplies	6.99	153.5	158.4	157.4	157.8	159.4	160.7	159.9	160.3	160.6	162.8	164.4	165.4	165.9	
Gen. business supplies	5.67	158.7	164.3	163.3	163.1	165.0	166.6	165.7	165.5	165.9	168.6	170.6	172.1	172.6	
Commercial energy prod.	1.31	131.2	132.9	131.8	135.0	135.3	135.3	134.6	137.8	137.5	137.6	137.7	136.4	136.7	
MATERIALS	42.28	118.2	122.5	123.7	123.0	122.1	122.5	123.6	123.9	124.5	126.4	126.5	126.5	127.1	128.0
DURABLE GOODS MATERIALS	20.50	125.0	130.2	132.0	131.8	131.4	131.3	132.7	134.8	134.9	136.8	136.6	137.9	138.8	139.7
Consumer durable parts	4.92	100.9	103.1	104.0	104.7	104.4	103.5	106.2	110.0	110.3	110.1	109.8	111.0	111.8	113.0
Equipment parts	5.94	159.0	163.2	165.3	167.4	167.6	167.3	168.9	170.8	171.6	174.1	173.5	173.8	174.6	174.9
Durable materials nec	9.64	116.4	123.6	125.5	123.7	123.0	123.4	124.0	125.3	124.8	127.5	127.6	129.4	130.5	131.7
Basic metal materials	4.64	86.6	96.5	100.0	92.9	91.4	90.5	91.6	94.8	93.7	98.4	97.3	100.3	100.8	101.5
NONDURABLE GOODS MATERIALS	10.10	125.9	129.6	132.5	129.9	128.1	130.1	131.1	130.1	130.1	132.8	133.1	132.6	133.8	134.8
Textile, paper, & chem. mater.	7.53	127.7	132.3	135.6	132.7	129.9	132.4	133.3	131.9	132.1	135.3	135.7	135.0	136.2	137.1
Textile materials	1.52	112.0	112.7	113.6	112.6	110.2	112.7	111.9	107.5	107.5	108.5	110.1	108.3	108.2	
Pulp & paper materials	1.55	141.0	144.4	149.0	148.0	144.4	144.8	145.8	146.4	145.4	150.3	148.3	148.1	149.0	
Chemical materials	4.46	128.4	134.7	138.4	134.2	131.5	134.8	136.2	135.1	135.8	139.2	140.0	139.5	141.3	
Misc. nondurable materials	2.57	120.5	121.7	123.3	121.8	123.0	123.2	124.6	125.1	124.2	125.6	125.6	125.8		
ENERGY MATERIALS	11.69	99.8	102.8	101.7	101.4	100.6	100.6	101.0	99.5	101.3	102.7	103.2	101.3	100.8	101.6
Primary energy	7.57	105.0	108.4	107.7	107.3	104.8	105.0	106.7	104.0	105.6	106.8	106.2	106.5	105.8	
Converted fuel materials	4.12	90.2	92.6	90.7	90.6	93.0	92.6	90.5	91.2	93.5	95.3	97.7	91.7	91.5	

NOTE: Two components--oil and gas well drilling and manufactured homes--are included in total equipment but not shown here. They are shown in Tables 4A and 4B on page 8 and 9.

Table 1B
INDUSTRIAL PRODUCTION: MARKET GROUPINGS
 Not seasonally adjusted, 1977 = 100

Major Market Groupings	1977 Pro-portion	1987 Ann. Avg.	1987 NOV	DEC	1988 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
TOTAL INDEX	100.00	129.8	132.7	129.9	130.8	134.2	134.1	133.9	135.0	139.3	136.3	141.7	143.1	141.9	139.5
PRODUCTS, TOTAL	57.72	138.3	140.5	136.8	137.7	141.1	141.1	141.2	143.2	149.1	146.1	152.6	154.7	152.3	148.3
FINAL PRODUCTS	46.77	136.8	138.6	135.5	137.0	140.0	139.8	139.4	141.7	147.5	143.8	150.6	152.6	150.5	146.6
CONSUMER GOODS	25.52	127.8	128.4	123.6	126.1	129.3	128.3	128.8	130.8	137.3	133.2	141.3	143.0	141.3	136.0
EQUIPMENT, TOTAL	19.25	148.9	152.0	151.3	151.5	154.2	155.0	153.5	156.0	161.1	158.0	162.8	165.3	162.6	160.5
INTERMEDIATE PRODUCTS	12.94	143.4	147.3	141.4	139.9	145.0	145.4	147.2	148.6	154.5	153.9	159.8	161.9	158.8	154.4
MATERIALS	42.28	118.2	121.9	120.5	121.5	124.8	124.6	124.0	123.7	126.0	122.8	126.8	127.3	127.7	127.4
CONSUMER GOODS	25.52	127.8	128.4	123.6	126.1	129.3	128.3	128.8	130.8	137.3	133.2	141.3	143.0	141.3	136.0
DURABLE CONSUMER GOODS	6.89	120.2	124.9	110.6	118.0	124.2	123.4	126.0	127.5	129.5	110.2	122.8	130.3	138.9	130.9
Automotive products	2.98	118.5	121.6	103.9	117.4	124.7	127.6	127.0	132.3	136.4	99.8	115.0	130.4	136.9	130.8
Autos and trucks, consumer	1.79	115.1	119.4	92.6	112.1	124.6	128.5	126.3	136.9	140.9	82.9	105.8	128.5	138.5	131.2
Autos, consumer	1.16	90.7	93.8	71.6	78.2	90.8	97.3	98.8	107.9	113.5	59.9	74.6	97.6	110.2	102.4
Trucks, consumer	0.63	160.5	167.0	131.7	175.0	187.3	186.4	177.4	190.6	191.7	125.7	163.7	185.8	191.1	
Auto parts & allied gds	1.19	123.5	124.8	120.9	125.5	124.9	126.3	128.0	125.4	129.5	125.2	128.9	133.4	134.4	130.1
Home goods	3.91	121.6	127.5	113.8	118.5	123.8	120.3	125.2	123.9	124.3	118.1	128.7	130.1	140.4	131.0
Appliances, TV & air-cond	1.24	141.5	154.5	123.7	140.0	145.0	131.5	146.6	143.5	134.5	130.7	146.6	144.5	178.0	156.4
Appliances and TV	1.19	142.1	157.2	124.5	137.4	144.3	128.3	141.1	142.2	132.1	132.1	149.9	146.8	179.6	
Carpeting & furniture	0.96	130.7	134.8	127.4	123.8	133.7	135.1	134.7	133.7	139.4	128.4	140.5	143.5	144.4	
Misc. home goods	1.71	102.0	103.8	103.5	100.0	103.0	103.9	104.4	104.4	108.5	103.3	109.1	112.3	110.9	
NONDURABLE CONSUMER GOODS	18.63	130.6	129.7	128.4	129.1	131.1	130.2	129.8	132.0	140.1	141.7	148.2	147.8	142.2	137.9
Clothing	3.34	99.4	99.7	95.8	94.7	100.1	101.1	100.4	99.7	104.5	99.0	106.3	106.4	103.7	
Consumer staples	15.29	137.4	136.3	135.5	136.6	137.9	136.5	136.3	139.1	147.9	151.0	157.4	156.8	150.6	145.7
Consumer foods & tobacco	7.80	136.3	136.8	132.3	132.0	134.2	134.2	133.2	137.2	144.7	143.5	150.6	151.7	149.2	
Nonfood staples	7.49	138.5	135.7	136.9	141.4	141.8	138.9	139.4	141.1	151.3	158.9	164.4	162.1	152.0	149.0
Consumer chem. products	2.75	162.9	160.5	160.3	160.2	162.9	163.4	166.9	174.1	188.0	194.8	197.2	201.7	190.5	
Consumer paper products	1.88	151.9	149.3	149.6	147.5	151.1	152.8	155.2	157.4	165.8	172.4	182.0	181.1	171.1	
Consumer energy	2.86	106.3	103.1	111.3	119.4	115.6	106.3	102.8	98.7	106.7	115.6	121.4	111.5	102.6	
Consumer fuel	1.44	93.1	96.7	99.5	94.6	91.8	91.7	95.1	95.0	95.9	96.5	97.5	94.3	94.8	
Residential utilities	1.42	119.8	109.5	123.4	144.7	139.8	121.1	110.7	102.4	117.7	135.0	145.7	129.1		
EQUIPMENT, TOTAL	19.25	148.9	152.0	151.3	151.5	154.2	155.0	153.5	156.0	161.1	158.0	162.8	165.3	162.6	160.5
BUSINESS & DEFENSE EQUIP.	16.01	153.6	156.0	155.3	155.9	159.2	160.0	158.5	161.2	166.5	163.3	168.1	170.8	168.0	165.9
BUSINESS EQUIPMENT	14.34	144.5	147.3	145.8	146.6	151.3	152.4	151.2	155.1	161.8	158.3	164.3	167.2	164.2	160.9
Constr., mining, & farm	2.09	82.2	85.3	86.9	85.1	89.1	68.9	70.1	71.1	73.3	73.4	73.5	76.5	74.5	74.2
Manufacturing equipment	3.27	117.9	119.1	120.5	121.2	124.9	127.7	125.9	126.4	132.5	132.2	136.6	140.1	138.4	137.3
Power equipment	1.27	82.6	84.2	85.9	85.0	87.0	86.3	84.3	85.9	90.5	89.0	90.8	95.5	94.7	94.0
Commercial equipment	5.22	126.5	120.3	128.5	129.1	134.7	133.8	132.6	140.7	151.6	155.7	163.8	160.8	152.1	145.4
Transit equipment	2.49	108.4	111.5	102.2	106.7	112.8	118.0	115.7	118.9	122.8	95.1	105.8	119.4	124.3	121.7
DEFENSE & SPACE EQUIPMENT	3.67	188.9	189.8	192.8	192.5	190.1	189.9	186.9	185.4	184.6	182.7	183.1	184.9	182.7	185.3
INTERMEDIATE PRODUCTS	12.94	143.4	147.3	141.4	139.9	145.0	145.4	147.2	148.6	154.5	153.9	159.8	161.9	158.8	154.4
Construction supplies	5.95	131.5	135.0	128.6	128.5	132.9	135.0	138.3	140.3	143.1	138.3	141.9	144.3	144.2	141.0
Business supplies	6.99	153.5	157.8	152.3	149.7	155.2	154.3	154.8	155.7	164.2	167.3	175.1	176.9	171.2	
Gen. business supplies	5.67	158.7	164.4	158.4	153.3	159.9	160.6	161.5	161.8	169.0	172.0	181.2	183.7	179.8	
Commercial energy prod.	1.31	131.2	129.1	125.9	134.0	135.3	127.1	126.0	129.2	143.3	146.8	149.0	147.4	133.9	
MATERIALS	42.28	118.2	121.9	120.5	121.5	124.8	124.6	124.0	123.7	126.0	122.8	126.8	127.3	127.7	127.4
DURABLE GOODS MATERIALS	20.50	125.0	129.3	128.3	127.5	132.5	133.8	133.9	135.8	137.3	133.0	136.5	139.5	140.3	139.1
Consumer durable parts	4.92	100.9	103.2	103.4	101.9	106.2	107.0	108.0	110.0	110.9	103.8	107.7	112.0	114.0	113.5
Equipment parts	5.94	159.0	164.4	167.6	166.7	167.1	168.1	167.4	169.4	172.9	171.0	173.4	175.1	174.4	176.3
Durable materials nec	9.64	116.4	121.1	116.9	116.4	124.7	126.4	126.4	128.2	128.9	124.4	128.5	131.6	132.7	129.3
Basic metal materials	4.64	86.6	91.7	89.9	90.7	95.5	97.9	98.4	101.0	96.7	92.0	93.0	97.5	99.6	97.5
NONDURABLE GOODS MATERIALS	10.10	125.9	129.7	125.1	127.9	131.4	132.5	132.8	130.4	132.1	128.0	133.4	134.3	136.2	134.5
Textile, paper, & chem. mater.	7.53	127.7	132.7	129.1	131.0	133.6	135.1	135.2	132.7	134.0	130.1	135.5	136.5	137.1	137.0
Textile materials	1.52	112.0	115.4	101.2	110.1	113.2	114.3	111.3	110.8	110.1	96.3	116.8	111.3	112.5	
Pulp & paper materials	1.55	141.0	144.3	141.8	149.1	149.3	150.3	146.8	145.5	147.1	144.9	149.5	147.7	148.9	
Chemical materials	4.46	128.4	134.6	134.3	131.8	135.0	136.9	139.2	135.7	137.7	136.4	137.0	141.3	141.3	
Misc. nondurable materials	2.57	120.5	120.9	113.2	118.9	124.9	125.0	125.9	123.5	126.4	122.1	127.2	127.8		
ENERGY MATERIALS	11.69	99.8	102.1	102.7	105.5	105.5	101.8	98.9	96.8	100.9	100.5	104.3	99.7	98.4	100.9
Primary energy	7.57	105.0	107.6	107.5	109.1	108.9	107.6	106.3	103.0	105.2	103.0	106.6	105.1	104.8	
Converted fuel materials	4.12	90.2	92.0	94.0	98.9	99.4	91.0	85.4	85.5	93.0	96.0	99.9	89.9	86.6	

NOTE: Two components--oil and gas well drilling and manufactured homes--are included in total equipment but not shown here. They are shown in Tables 4A and 4B on page 8 and 9.

Table 2A
INDUSTRIAL PRODUCTION: INDUSTRY GROUPINGS
 Seasonally adjusted, 1977 = 100

Major Industry Groupings	SIC Code	1977	1987	1987		1988										
		Pro- por- tion	Ann. Avy.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
MINING AND UTILITIES		15.79	104.3	107.9	107.3	107.8	106.8	106.7	107.1	106.0	106.8	108.1	109.0	107.0	106.7	107.3
MINING		9.83	100.7	104.6	104.6	103.3	101.5	102.7	104.7	102.6	103.0	104.3	103.8	103.5	102.6	103.2
UTILITIES		5.96	110.3	113.2	111.7	115.2	115.6	113.3	111.0	111.6	113.2	114.4	117.8	112.8	113.5	114.0
MANUFACTURING		84.21	134.7	137.9	138.9	139.4	139.5	140.0	140.8	141.8	142.1	143.6	144.0	144.4	145.3	146.0
NONDURABLE		35.11	136.8	139.6	141.3	141.4	141.1	141.7	142.3	142.1	142.6	144.6	145.1	145.3	146.2	146.8
DURABLE		49.10	133.1	136.7	137.3	137.9	138.4	138.8	139.7	141.5	141.7	142.9	143.2	143.8	144.7	145.4
MINING																
Metal mining	10	1.50	77.6	90.4	96.5	91.5	83.9	84.9	86.9	86.0	82.2	94.0	96.6	99.1		
Coal	11,12	1.60	131.8	142.9	140.6	140.2	133.7	129.1	136.0	127.8	126.9	141.5	137.2	142.2	138.5	145.6
Oil & gas extraction	13	7.07	92.7	94.2	94.1	93.1	92.4	94.8	95.5	94.6	95.8	93.3	93.2	91.7	91.1	
Stone & earth minerals	14	.66	128.2	134.1	135.6	132.1	134.3	136.9	141.2	140.1	137.4	140.2	141.3	139.5	141.4	
NONDURABLE MANUFACTURES																
Foods	20	7.96	137.8	138.9	140.1	141.2	141.9	141.1	140.3	141.0	141.3	143.3	143.3	143.2	144.3	
Tobacco products	21	.62	103.5	106.5	110.5	105.8	107.0	107.2	107.2	107.2	104.5	100.6	105.1	103.0		
Textile mill products	22	2.29	115.9	117.3	118.2	116.2	115.3	117.0	117.3	114.6	114.3	117.1	116.4	115.7	115.1	
Apparel products	23	2.79	107.4	109.4	107.8	108.7	108.5	108.7	109.2	108.6	109.3	109.4	108.9	109.6		
Paper & products	26	3.15	144.4	148.3	150.6	149.9	148.0	149.1	149.2	149.5	148.6	152.3	151.0	150.8	151.9	
Printing & publishing	27	4.54	172.1	175.7	176.9	177.5	178.7	180.4	181.8	180.7	182.3	184.9	186.7	188.7	189.3	189.2
Chemicals & products	28	8.05	140.2	144.4	147.9	147.9	145.4	146.4	148.9	149.1	150.5	153.4	154.8	155.5	156.5	
Petroleum products	29	2.40	93.5	93.3	96.1	96.3	95.9	98.4	98.5	95.2	94.1	95.0	96.0	93.6	96.2	94.3
Rubber & plastics prod.	30	2.80	163.6	169.9	170.6	170.5	172.3	172.2	172.3	173.4	174.4	175.4	175.3	175.2	176.0	
Leather & products	31	.53	60.0	60.7	57.5	58.3	59.7	59.5	58.0	57.1	58.9	59.1	59.4	59.5	59.8	
DURABLE MANUFACTURES																
Lumber & products	24	2.30	130.3	134.0	133.6	136.3	139.0	137.8	138.0	139.8	136.4	136.6	133.8	133.5	136.9	
Furniture & fixtures	25	1.27	152.8	158.5	159.4	158.0	158.3	159.4	159.2	160.5	161.2	162.9	164.9	165.1	164.1	
Clay, glass, stone prod.	32	2.72	119.1	120.5	120.1	120.4	121.6	122.5	121.4	121.5	123.4	122.2	122.6	122.8	122.6	
Primary metals	33	5.33	81.3	90.2	90.6	86.5	86.4	85.1	85.3	89.2	87.5	91.5	90.8	93.0	94.3	94.8
Iron & steel	331,2	3.49	70.6	79.7	81.9	77.8	77.4	74.2	74.5	78.6	74.2	80.2	78.9	81.4	83.7	
Fabricated metal prod.	34	6.46	111.0	113.6	115.8	117.1	117.6	118.8	118.8	119.8	120.4	121.7	122.1	122.6	122.9	124.3
Nonelectrical machinery	35	9.54	152.7	157.2	161.0	162.9	163.6	164.6	167.2	170.3	171.2	173.1	174.1	175.0	175.3	176.2
Electrical machinery	36	7.15	172.3	175.6	175.9	177.4	177.8	176.6	178.7	179.1	179.5	181.5	182.2	181.7	182.1	182.8
Transportation equip.	37	9.13	125.2	130.4	128.1	128.6	128.4	130.0	130.4	133.1	132.8	131.9	131.8	132.6	134.3	135.4
Motor vehicles & pts.	371	5.25	111.8	114.0	110.2	109.7	109.3	113.0	114.8	119.6	119.1	116.6	117.5	118.5	121.4	122.8
Aerospace & misc.	372-3,9	3.87	152.8	152.7	152.4	154.2	154.5	153.0	151.5	151.5	151.4	152.7	151.3	151.7	151.9	152.5
Instruments	38	2.66	143.9	147.8	145.5	148.2	149.2	149.7	150.5	151.3	153.0	156.4	156.8	158.0	159.1	159.6
Miscellaneous mfrs.	39	1.46	102.5	104.5	105.6	105.0	104.4	105.1	105.9	106.0	107.6	107.8	108.3	108.5	107.9	
UTILITIES																
Electric		4.17	126.6	127.5	125.6	130.3	130.7	129.0	127.6	129.7	132.1	134.6	138.8	131.9	132.4	

Table 3A
INDUSTRIAL PRODUCTION: PERCENT CHANGES
 Based on seasonally adjusted indexes

Series	1987		1988										
	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
	CHANGE FROM PREVIOUS MONTHS												
TOTAL INDEX	.5	.5	.4	.0	.2	.5	.5	.3	1.1	.3	.1	.5	.5
Final products	-0.1	.4	1.0	.3	.1	.5	.7	.3	.7	.5	.0	.6	.2
Consumer goods	.3	.3	1.1	.1	-0.1	.6	.6	.2	.9	.6	-0.1	1.2	.3
Durable consumer goods	-0.4	-2.9	1.2	-1.0	-0.2	2.4	1.9	-0.3	.0	.3	.5	2.2	-0.1
Nondurable consumer goods	.5	1.4	1.1	.4	-0.1	.0	.2	.4	1.2	.7	-0.3	.9	.4
Business equipment	-0.2	1.0	.9	.8	.6	.8	1.5	.8	.8	.5	.4	.0	.4
Construction Supplies	.7	-0.3	2.3	.6	-0.3	.2	.9	-0.9	.6	-0.2	.4	.7	.8
Materials	1.1	1.0	-0.6	-0.7	.3	.8	.3	.4	1.6	.1	.0	.5	.7
Durable goods materials	1.1	1.4	-0.1	-0.3	-0.1	1.1	1.6	.1	1.4	-0.1	.9	.7	.6
Nondurable goods materials	1.1	2.2	-1.9	-1.4	1.5	.8	-0.7	-0.1	2.1	.2	-0.3	.9	.7
Manufacturing	.4	.7	.3	.1	.4	.6	.7	.2	1.1	.3	.3	.6	.5
Durable manufacturing	-0.1	.4	.5	.4	.3	.6	1.3	.1	.9	.2	.4	.6	.5
Nondurable manufacturing	1.1	1.2	.1	-0.2	.5	.4	-0.2	.4	1.4	.3	.1	.6	.4
Mining and utilities	1.0	-0.6	.5	-0.9	-0.1	.4	-1.0	.8	1.2	.9	-1.8	-0.3	.5
	CHANGE FROM SAME MONTH A YEAR EARLIER												
TOTAL INDEX	6.0	5.6	6.5	5.8	5.7	6.3	6.2	5.7	5.7	5.5	5.8	5.1	5.1
Final products	4.8	4.3	5.9	5.0	5.0	5.9	5.9	5.7	5.2	5.4	5.8	5.2	5.5
Consumer goods	3.6	2.5	4.6	3.9	3.5	5.1	4.2	4.5	4.1	4.3	5.6	5.7	5.7
Durable consumer goods	5.5	.7	2.5	-0.4	.5	5.6	4.5	6.7	4.1	3.7	6.5	3.8	4.1
Nondurable consumer goods	2.9	3.2	5.3	5.4	4.5	5.0	4.1	3.8	4.1	4.5	5.3	6.4	6.3
Business equipment	6.8	7.4	9.1	7.6	8.0	8.8	10.8	9.7	9.5	10.0	9.9	8.1	8.8
Construction Supplies	5.5	4.1	5.0	5.9	5.3	7.3	7.5	4.7	4.0	4.2	4.8	4.7	4.8
Materials	7.2	7.4	7.1	6.3	6.4	6.6	6.6	6.2	6.7	6.0	5.7	4.9	4.5
Durable goods materials	7.9	8.5	9.4	8.4	7.3	8.6	10.0	8.8	9.3	8.8	9.1	7.8	7.3
Nondurable goods materials	8.7	8.2	7.0	6.0	7.0	5.6	5.0	4.8	4.1	3.8	3.2	4.4	4.0
Manufacturing	6.0	5.8	6.6	6.0	5.8	6.3	6.5	6.0	6.0	6.0	6.4	5.8	5.9
Durable manufacturing	6.0	5.8	6.7	5.9	5.6	6.7	7.7	7.4	7.0	7.0	7.6	5.8	6.4
Nondurable manufacturing	6.0	5.9	6.5	6.2	6.0	5.8	4.7	4.2	4.5	4.6	4.9	5.8	5.1
Mining and utilities	5.7	5.6	5.0	4.3	4.7	5.6	2.8	3.7	4.2	3.4	1.5	-0.1	-0.6

Table 2B
INDUSTRIAL PRODUCTION: INDUSTRY GROUPINGS
Not seasonally adjusted, 1977 = 100

Major Industry Groupings	SIC Code	1977	1987	1987		1988											
		Pro- por- tion	Ann. Avg.	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	
MINING AND UTILITIES		15.79	104.3	106.9	108.1	111.8	111.2	106.1	103.5	101.3	106.5	108.3	112.6	107.8	104.4	106.2	
MINING		9.83	100.7	106.3	105.1	104.0	103.8	103.4	103.4	100.9	102.0	100.6	104.3	103.2	103.8	104.6	
UTILITIES		5.96	110.3	107.6	113.1	124.8	123.4	110.4	103.7	102.1	114.0	121.1	126.4	115.4	105.4	109.0	
MANUFACTURING		84.21	134.7	137.5	134.0	134.4	138.5	139.4	139.6	141.3	145.5	141.5	147.2	149.7	149.1	145.7	
NONDURABLE		35.11	136.8	139.1	135.0	134.2	138.4	139.2	139.8	140.7	146.4	145.1	151.7	152.9	151.0	146.2	
DURABLE		49.10	133.1	136.3	133.3	134.6	138.6	139.5	139.4	141.6	144.8	138.9	144.0	147.4	147.7	145.4	
MINING																	
Metal mining	10	.50	77.6	84.8	83.5	83.7	85.5	87.6	92.4	94.8	90.4	93.8	96.3	97.7			
Coal	11,12	1.60	131.8	140.3	129.0	133.3	138.6	137.7	136.2	126.1	131.9	128.1	147.5	145.3	143.0	142.3	
Oil & gas extraction	13	7.07	92.7	97.0	98.7	97.4	95.4	94.4	93.2	91.8	92.4	90.9	91.1	90.0	91.0		
Stone & earth minerals	14	.66	128.2	140.6	131.6	118.7	123.6	129.1	141.8	142.5	140.7	143.3	146.1	145.5	150.3		
NONDURABLE MANUFACTURES																	
Foods	20	7.96	137.8	139.1	135.9	133.7	135.0	135.2	134.7	138.8	145.4	146.1	151.5	152.8	151.1		
Tobacco products	21	.62	103.5	108.3	88.0	102.2	113.8	109.6	104.0	102.5	112.8	87.0	113.4	107.1			
Textile mill products	22	2.29	115.9	118.0	104.8	108.6	115.2	117.2	118.0	117.0	118.9	109.4	123.6	120.5	121.2		
Apparel products	23	2.79	107.4	109.3	107.0	105.2	107.5	108.4	107.6	107.4	111.3	105.9	112.4	113.6			
Paper & products	26	3.15	144.4	146.9	142.0	150.2	152.0	153.7	151.1	148.2	150.3	146.8	152.0	151.7	155.5		
Printing & publishing	27	4.54	172.1	174.9	169.5	161.7	168.9	170.2	173.8	175.4	186.1	194.8	206.0	207.0	198.4	188.8	
Chemicals & products	28	8.05	140.2	142.6	141.3	140.9	143.9	145.4	148.3	149.0	155.1	156.0	157.6	162.0	158.4		
Petroleum products	29	2.40	93.5	95.4	96.7	91.7	89.8	92.2	94.7	95.6	98.2	99.4	100.9	97.2	96.7	96.1	
Rubber & plastics prod.	30	2.80	163.6	167.9	160.9	161.1	178.6	175.9	173.8	173.0	178.4	166.2	177.9	181.0	182.1		
Leather & products	31	.53	60.0	62.4	53.9	56.2	62.0	60.8	57.9	58.0	59.5	51.0	62.0	61.7	63.0		
DURABLE MANUFACTURES																	
Lumber & products	24	2.30	130.3	130.7	120.3	128.5	135.2	136.1	139.2	141.3	143.4	134.2	139.2	141.2	143.4		
Furniture & fixtures	25	1.27	152.8	158.8	155.8	151.8	164.0	160.2	156.0	154.7	162.8	155.6	170.9	172.3	169.0		
Clay, glass, stone prod.	32	2.72	119.1	120.7	113.9	112.1	114.7	120.1	121.7	123.8	127.5	123.4	127.6	127.8	128.2		
Primary metals	33	5.33	81.3	85.6	83.7	84.7	90.0	91.7	92.3	94.8	90.6	85.4	85.9	90.5	92.8	91.2	
Iron & steel	331,2	3.49	70.6	73.9	74.1	75.1	80.1	80.4	82.7	85.6	77.8	76.7	73.7	78.0	81.1		
Fabricated metal prod.	34	6.46	111.0	114.1	114.5	113.0	117.8	119.0	118.4	119.3	122.6	119.4	122.3	125.5	125.2	125.0	
Nonelectrical machinery	35	9.54	152.7	155.2	155.5	157.0	162.0	162.7	162.0	167.3	175.0	176.7	182.3	182.8	177.6	174.4	
Electrical machinery	36	7.15	172.3	179.0	175.8	176.1	177.2	175.4	176.5	177.1	179.1	176.1	182.2	183.9	189.5	186.7	
Transportation equip.	37	9.13	129.2	131.7	125.2	129.4	132.4	134.3	133.1	136.1	137.9	116.3	123.8	134.0	137.6	136.9	
Motor vehicles & pts.	371	5.25	111.8	114.6	101.6	109.6	116.3	120.3	119.7	125.3	128.7	93.2	106.2	120.9	127.0	123.5	
Aerospace & misc.	372-6,9	3.87	152.8	155.0	157.2	156.4	154.2	153.4	151.3	150.7	150.5	147.7	147.8	151.8	152.1	155.0	
Instruments	38	2.66	143.9	147.2	144.7	144.6	146.6	148.1	147.9	148.8	155.8	158.5	161.0	162.7	160.3	158.8	
Miscellaneous mfrs.	39	1.46	102.5	102.8	99.5	97.8	105.2	103.7	104.0	104.2	109.8	107.1	113.9	116.5	112.0		
UTILITIES																	
Electric		4.17	126.6	119.7	124.9	139.1	137.3	123.0	117.6	117.3	135.0	146.0	152.9	137.1	122.0		

Table 3B
INDUSTRIAL PRODUCTION: HISTORICAL DATA
Seasonally adjusted, 1977 = 100

YEAR	JAN	FEB	MAR	APR	MAY	JUNE	JULY	AUG	SEPT	OCT	NOV	DEC	Q I	Q II	Q III	Q IV	ANNUAL
INDEX																	
72	83.8	84.4	85.1	86.5	86.3	86.5	86.4	87.6	88.5	89.8	90.9	91.8	84.4	86.4	87.5	90.8	87.3
73	91.8	93.1	93.1	93.4	93.8	94.5	95.1	95.1	95.8	96.1	96.2	94.7	92.7	93.9	95.3	95.7	94.4
74	93.3	93.0	93.4	93.2	94.3	94.6	94.2	93.9	94.2	93.6	90.9	87.1	93.2	94.1	94.1	90.5	93.0
75	84.8	83.5	82.0	82.7	82.5	83.6	84.1	85.6	86.4	86.9	87.7	88.4	83.4	82.9	85.3	87.6	84.8
76	89.3	90.9	90.7	91.1	92.1	92.2	92.7	93.2	93.5	93.9	95.4	96.2	90.3	91.8	93.2	95.2	92.6
77	96.5	97.2	98.0	99.0	99.6	100.4	100.7	101.0	101.4	101.8	102.1	102.1	97.3	99.7	101.0	102.0	100.0
78	101.6	101.6	103.0	105.5	105.8	106.9	107.5	107.7	108.3	109.2	109.9	110.8	102.1	106.1	107.9	110.0	106.5
79	110.3	110.9	111.2	109.9	110.9	110.9	110.5	110.2	110.4	111.0	111.0	111.0	111.8	110.6	110.4	111.0	110.7
80	111.3	111.4	111.4	109.1	106.2	105.0	104.8	106.3	107.7	108.5	110.7	111.0	111.4	106.8	106.3	110.1	110.8
81	111.0	111.2	111.6	110.6	111.2	112.0	113.4	112.8	111.5	110.4	109.0	107.4	111.2	111.3	112.5	108.9	111.0
82	105.4	107.0	105.8	104.5	103.6	103.0	102.5	102.0	101.3	100.5	100.6	100.5	106.1	103.7	102.0	100.6	103.1
83	102.5	103.3	104.2	105.6	106.9	107.8	109.8	111.6	113.7	114.4	114.8	115.5	103.3	106.8	111.7	114.9	109.2
84	118.5	119.3	119.9	120.5	121.0	121.9	122.8	123.0	122.4	122.1	122.7	122.7	119.3	121.1	122.7	122.5	121.4
85	122.4	122.9	123.3	123.1	123.7	123.5	123.4	124.1	124.4	123.7	124.8	125.4	122.9	123.4	124.0	124.7	123.7
86	126.4	125.5	123.9	124.7	124.3	124.1	124.8	124.9	124.5	125.3	125.7	126.8	125.2	124.4	124.8	125.9	125.1
87	126.2	127.1	127.4	127.9	128.2	129.1	130.6	131.2	131.0	132.5	133.2	133.9	126.9	128.2	131.0	133.2	129.8
CHANGE*																	
72	2.2	0.7	0.8	1.6	-0.2	0.2	-0.1	1.4	1.0	1.5	1.2	1.0	3.8	2.4	1.3	3.8	9.7
73	0.0	1.4	0.0	0.3	0.4	0.7	0.6	0.0	0.7	0.3	0.1	-1.6	2.1	1.3	1.5	0.4	8.1
74	-1.5	-0.3	0.4	-0.2	1.2	0.3	-0.4	-0.3	0.3	-0.6	-2.9	-4.2	-2.6	1.0	0.0	-3.8	-1.5
75	-2.6	-1.5	-1.8	0.9	-0.2	1.3	0.6	1.8	0.9	0.6	0.9	0.8	-7.8	-0.6	2.9	2.7	-8.8
76	1.0	1.8	-0.2	0.4	1.1	0.1	0.5	0.5	0.3	0.4	1.6	0.8	3.1	1.7	1.5	2.1	9.2
77	0.3	0.7	0.8	1.0	0.6	0.8	0.3	0.3	0.4	0.4	0.3	0.0	2.2	2.5	1.3	1.0	8.0
78	-0.5	0.0	1.4	2.4	0.3	1.0	0.6	0.2	0.6	0.8	0.6	0.8	0.1	3.9	1.7	1.9	6.5
79	-0.5	0.5	0.3	-1.2	0.9	0.0	-0.4	-0.3	0.2	0.5	0.0	0.0	0.7	-0.2	-0.2	0.5	3.9
80	0.3	0.1	0.0	-2.1	-2.7	-1.1	-0.2	1.4	1.3	0.7	2.0	0.3	0.4	-8.1	-0.5	3.6	-1.9
81	0.0	0.2	0.4	-0.9	0.5	0.7	1.2	-0.5	-1.2	-1.0	-1.3	-1.5	1.0	0.1	1.1	-3.2	2.2
82	-1.9	1.5	-1.1	-1.2	-0.9												

Table 4A

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1987	1987	1988					1989						
		PRO- tion	Ann. Avg.	UCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
METAL MINING	10	50	77.6	85.6	90.4	96.5	91.5	83.9	84.9	86.9	86.0	82.2	94.0	96.6	99.1	
Iron ore	101	15	83.0	108.1	117.0	141.0	122.8	101.1	83.9	86.4	81.2	81.1	100.3	99.2	107.8	
Nonferrous ores	102-6,8,9	35	75.1	77.1	80.4	78.2	81.0	77.3	81.6	85.9	89.3	86.7	94.7	96.6	95.4	
Copper ore	102	15	92.1	90.5	99.1	96.7	98.7	94.2	99.4	100.4	106.4	97.5	108.4	114.3	105.7	
Lead and zinc ores	103	05	55.0	55.5	52.7	54.7	53.3	55.2	64.9	67.1	67.1	74.3	69.5	75.0	68.0	
Gold and silver ores	104	02	236.3	273.2	278.4	281.4	290.7	272.2	260.1	289.3	305.4	292.0	337.5	320.4		
Ferrous alloy ores	106	04	55.6	52.8	52.9	41.6	58.9	51.2	64.9	80.3	83.4	85.4	92.9	87.0		
ANTHRACITE	11	02	66.0	42.6	63.3	59.6	67.3	81.0	70.9	83.1	80.1	71.1	63.9	76.4	74.9	66.7
BITUMINOUS	12	1.58	132.5	141.2	144.9	141.2	145.9	136.9	129.8	135.9	127.1	128.0	143.1	136.2	141.2	138.6
OIL AND GAS EXTRACTION	13	7.07	92.7	94.1	94.2	94.1	93.1	92.4	94.8	95.5	94.6	95.8	93.3	93.2	91.7	91.1
Crude oil & natural gas	131	5.62	94.6	94.5	96.1	96.1	94.8	94.0	95.2	95.2	94.7	95.6	93.2	93.2	91.7	92.3
Crude oil, total		3.40	100.3	100.7	101.1	100.7	99.6	98.4	100.9	101.4	99.4	100.5	98.3	97.7	96.8	95.4
Texas crude		1.34	66.6	67.1	66.4	66.1	65.6	65.3	65.6	65.6	65.0	65.9	64.5	63.9	63.1	62.5
Alaska, Calif. crude		1.57	107.6	105.8	113.9	116.5	110.4	207.2	214.5	219.6	210.8	212.5	206.4	207.3	205.2	202.4
La. and other crude		1.54	89.6	90.9	89.4	87.8	87.9	86.7	89.4	88.5	88.0	89.0	87.7	86.3	85.7	84.3
Natural gas		2.16	85.5	84.5	86.2	88.6	87.2	87.1	86.1	85.4	87.2	87.7	84.9	86.0		
Natural gas liquids	132	47	98.7	99.9	98.7	99.2	94.7	96.0	100.3	100.9	101.8	101.0	99.8	100.9	102.2	
Propane		05	99.2	101.2	98.7	98.6	96.6	97.1	102.2	101.7	99.2	98.1	99.1	99.7		
Liquefied petroleum		42	98.7	99.8	98.7	99.3	94.5	95.9	100.7	100.8	102.1	101.3	99.9	101.0	102.7	
Oil & gas well drilling	138	99	79.1	94.7	91.3	86.6	85.6	84.6	88.1	87.1	86.3	86.5	86.9	86.8	85.3	82.7
FOODS	20	7.96	137.8	138.0	138.9	140.1	141.2	141.9	141.1	140.3	141.0	141.3	143.3	143.3	143.2	144.3
Meat products	201	1.06	121.1	121.3	124.8	125.6	124.5	127.1	126.9	121.8	123.5	127.8	126.6	127.0	128.3	125.3
Beef		43	93.3	92.6	92.4	91.1	93.3	93.5	92.5	94.6	91.8	94.6	98.0	95.4	94.2	92.3
Pork		25	109.5	112.8	118.6	120.4	115.9	116.2	116.4	112.6	112.0	116.8	120.7	120.6	124.7	124.4
Poultry		20	166.4	165.6	172.5	179.1	176.1	180.3	180.1	166.9	173.6	174.3	161.6	167.0	173.8	161.4
Misc. meats		18	153.7	152.8	157.6	157.2	153.8	163.6	165.2	149.6	160.3	171.3	164.4	167.8	164.8	165.7
Dairy products	202	80	128.5	130.6	131.2	133.8	131.3	131.7	133.0	132.3	130.4	129.8	129.1	129.6	131.6	131.5
Butter	2021	01	102.3	105.7	107.7	111.2	116.9	113.2	111.1	111.2	109.1	103.6	104.1	99.7	108.5	112.7
Cheese	2022	13	158.4	162.2	160.5	162.6	158.3	164.0	165.1	160.6	158.7	159.1	161.1	162.7	172.5	170.1
Concentrated milk	2023	11	126.5	129.1	133.4	142.6	133.8	136.1	138.5	137.3	129.5	130.6	114.2	118.7	126.1	118.6
Frozen desserts	2024	09	149.1	147.4	149.9	155.0	148.5	147.3	150.4	153.6	154.2	156.5	157.5	154.4	147.9	152.1
Canned and frozen food	203	1.09	161.5	161.9	161.3	164.2	159.5	165.6	163.5	163.3	166.2	167.1	166.6	167.9	167.3	165.7
Grain mill products	204	94	135.8	135.7	140.3	141.0	140.5	139.1	139.3	140.9	147.6	144.9	149.3	147.5	144.8	151.3
Flour	2041	12	132.7	139.6	141.5	129.6	125.8	113.6	114.3	126.3	134.9	129.3	147.2	132.1	128.4	145.9
Bakery products	205	1.00	133.2	133.2	132.0	135.5	139.0	136.6	136.5	134.2	136.4	138.8	138.0	140.7	141.9	142.9
Beverages	208	1.41	134.4	134.1	135.5	136.5	137.7	137.9	133.8	135.6	137.4	131.5	138.3	136.3	137.4	137.9
Beer and ale	2082,3	38	114.6	117.3	115.7	115.7	124.1	118.0	112.0	115.4	114.7	109.7	116.1	111.5		
Wine and brandy	2086	07	196.1	183.5	194.2	205.6	220.2	214.9	187.5	207.8	211.7	213.6	224.7			
Soft drinks	2088,7	79	148.4	149.0	150.6	148.8	147.2	151.8	150.5	147.9	153.4	147.5	153.5	155.0	152.6	155.0
Liquors	2089	16	86.4	79.8	83.6	96.6	87.2	83.7	80.3	92.4	80.7	69.1	79.6	77.1		
Fats and oils	209	27	125.1	122.6	128.1	127.9	131.2	126.5	131.6	131.8	129.8	132.5	138.1	129.4	128.3	124.5
Coffee & misc. foods	2091	79	159.5	167.2	161.3	155.8	166.5	164.9	163.2	157.1	156.0	160.7	159.9	155.1	155.0	163.1
TOBACCO PRODUCTS	21	62	103.5	103.7	106.5	110.5	105.8	107.0	107.2	107.2	107.2	104.5	100.6	105.1	103.0	
Cigarettes	211	54	104.2	104.2	103.2	112.7	94.3	108.5	107.0	109.1	110.8	101.2	99.3	108.1		
Cigars	212	02	56.5	54.9	59.8	62.7	58.5	57.8	56.7	56.1	54.5	48.2	47.4	57.9		
TEXTILE MILL PRODUCTS	22	2.29	115.9	116.8	117.3	118.2	116.2	115.3	117.0	117.3	114.6	114.3	117.1	116.4	115.7	115.1
Fabrics	221-4	77	106.8	108.5	110.8	107.6	108.6	105.6	107.8	105.0	102.2	104.1	102.7	105.4	104.4	100.0
Cotton fabrics	221	28	129.5	130.9	135.7	128.5	128.0	128.0	130.0	123.3	119.5	120.3	114.1	121.2	120.5	
Synthetic fabrics	224	40	93.3	95.3	96.5	94.5	95.9	90.6	93.7	93.2	90.6	93.4	94.6	94.7	92.8	87.9
Knit goods	225	55	110.6	113.9	108.0	114.1	111.2	114.9	116.6	119.0	112.4	112.5	116.9	118.4	119.5	119.7
Hosiery	2251,2	12	155.4	169.9	145.7	157.1	151.5	160.1	151.2	169.9	155.1	148.3	162.7	181.3	170.8	
Knit garments	2253,4,7-9	43	97.8	97.9	97.2	101.8	99.6	102.0	106.7	104.4	100.2	102.2	103.8	100.4	104.8	105.5
Carpeting	227	22	157.1	158.8	166.6	159.4	162.8	158.0	146.2	152.2	162.1	158.2	166.5	164.2	149.1	160.0
Yarns & misc. text.	228,9	55	127.8	124.0	129.8	130.5	129.9	125.6	126.7	126.2	121.1	116.8	126.6	125.0	117.6	120.1
APPAREL PRODUCTS	23	2.79	107.4	108.0	109.4	107.8	108.7	108.5	108.7	109.2	108.6	109.3	109.4	108.9	109.6	
LUMBER AND PRODUCTS	24	2.30	130.3	129.8	134.0	133.6	136.3	139.0	137.8	138.0	139.8	136.4	136.6	133.8	133.5	136.9
Logging and lumber	241,2	1.05	117.8	118.2	123.1	123.2	134.4	132.8	125.2	131.1	133.8	124.4	140.9	119.8	121.8	129.5
Lumber products	243-5,9	1.25	140.8	140.3	143.3	139.1	140.3	142.8	144.7	142.6	146.0	146.2	143.9	144.6	143.6	
Millwork & plywood	243	67	175.7	173.5	179.1	172.0	175.3	181.2	182.7	177.4	181.7	181.7	178.0	178.8	175.5	
Manufactured homes	245	25	85.1	87.5	83.9	81.6	74.7	75.8	78.4	79.3	80.1	83.6	78.9	80.2	83.6	82.7
FURNITURE AND FIXTURES	25	1.27	152.8	156.0	158.5	159.4	158.0	158.3	159.4	159.2	160.5	161.2	162.9	164.9	165.1	164.1
Household furniture	251	74	123.1	125.0	124.6	125.3	125.5	123.6	129.2	126.9	127.5	129.8	129.2	131.1	131.8	
Fixt., office furn.	252,4,9	47	201.5	207.0	216.4	215.2	208.2	211.2	212.0	212.7	215.0	216.7	217.9	217.3	214.6	
PAPER AND PRODUCTS	26	3.15	144.4	146.0	148.3	150.6	149.9	148.0	149.1	149.2	149.5	148.6	152.3	151.0	150.8	151.9
Pulp and paper	261-3	1.33	132.1	131.3	133.4	144.0	137.6	133.1	132.8	133.2	134.1	131.9	141.4	136.6	135.0	136.1
Wood pulp	261	44	127.2	126.6	124.1	138.6	133.0	127.1	126.5	127.6	125.4	125.8	137.7	132.3	130.5	
Paper	262	44	135.3	134.4	1											

Table 4B
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES
 Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977			1987			1988									
		Pro- por- tion	Ann- Avg.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
METAL MINING																	
Iron ore	101	.50	77.6	82.9	84.8	83.5	83.7	85.5	87.6	92.4	94.8	90.4	93.8	96.3	97.7		
Nonferrous ores	102-0,8,9	.35	75.1	75.9	80.5	76.5	81.6	80.0	86.6	87.5	89.7	83.9	108.3	106.5	104.3		
Copper ore	102	.15	92.1	90.4	101.1	95.1	99.4	95.9	103.9	101.7	107.2	101.6	101.7	107.0	104.6		
Lead and zinc ores	103	.05	55.0	57.3	50.5	53.6	55.9	61.3	71.7	69.6	65.6	69.9	61.6	71.1	67.6		
Gold and silver ores	104	.02	236.3	264.3	269.6	257.9	279.3	274.1	275.4	298.7	304.4	316.0	329.1	319.8			
Ferrous ores	106	.04	55.6	53.1	54.6	42.6	57.5	54.6	70.5	82.6	84.9	84.7	76.0	83.5			
ANTHRACITE BITUMINOUS																	
Crude oil & natural gas	131	5.62	94.6	93.5	96.2	98.2	96.2	97.0	95.9	94.9	93.2	94.0	91.7	91.5	90.1	91.3	
Crude oil, total		3.46	100.3	100.7	100.8	100.4	100.0	99.5	101.4	101.1	99.3	100.3	98.2	97.1	96.5	95.4	
Texas crude		1.34	66.8	66.9	66.0	66.1	65.4	65.8	66.3	66.0	64.9	65.5	64.1	63.4	63.0	62.3	
Alaska, Calif. crude		.57	207.6	205.8	211.7	215.6	212.1	209.8	215.3	217.0	210.3	213.5	207.8	205.9	204.7	202.4	
La. and other crude		1.54	89.6	91.1	89.3	87.4	88.5	87.9	89.5	88.5	87.9	88.5	87.2	85.9	85.4	84.5	
Natural gas		2.16	85.5	81.9	88.9	94.7	95.2	93.0	87.2	85.0	83.5	83.8	81.3	82.5			
Natural gas liquids	132	.47	98.7	99.2	101.2	100.1	95.5	97.3	99.8	98.7	100.7	100.0	100.2	101.4	101.5		
Propane		.05	99.2	99.4	101.4	101.7	101.0	101.4	102.3	101.0	98.4	95.7	96.5	96.3			
Liquefied petroleum		.42	98.7	99.1	101.1	99.9	94.9	96.9	99.5	98.4	101.0	100.5	100.6	101.9	102.1		
Oil & gas well drilling	138	.99	79.1	96.5	99.4	100.8	93.8	85.5	83.8	81.2	79.3	80.2	82.0	84.0	84.2	84.2	
FOODS																	
Meat products	201	1.06	121.1	130.7	125.5	122.3	123.3	122.9	125.5	122.1	123.3	127.9	120.9	128.1	131.6	134.9	
Beef		.43	93.3	98.2	91.2	88.3	94.8	91.2	88.3	89.9	91.7	96.7	96.7	99.2	97.6	97.9	
Pork		.25	109.5	122.4	125.5	122.3	116.4	113.1	119.6	118.2	112.8	112.9	106.0	112.7	124.6	135.0	
Poultry		.20	166.4	181.7	167.3	163.1	165.7	169.3	171.3	168.1	176.4	183.6	163.9	177.8	179.7	177.0	
Misc. meats		.18	153.7	163.6	161.4	158.4	154.2	161.4	172.4	153.7	154.6	161.4	152.0	164.0	169.7	177.4	
Dairy products	202	.80	128.9	122.2	120.4	124.4	123.1	129.4	135.5	140.6	142.3	144.3	134.8	129.8	127.4	123.3	
Butter	2021	.01	102.3	96.9	101.0	115.3	139.8	134.1	122.7	125.2	118.4	100.6	85.1	78.2	91.1	103.4	
Cheese	2022	.13	158.4	156.3	155.5	160.3	151.7	160.7	169.7	171.4	171.9	171.9	159.3	154.9	162.5	163.9	
Concentrated milk	2023	.11	126.5	109.7	109.7	131.6	127.3	135.6	141.8	156.8	152.4	156.2	124.2	113.6	109.9	100.8	
Frozen desserts	2024	.09	149.1	131.5	120.5	114.9	110.2	130.2	151.4	158.0	172.6	199.9	194.4	183.6	159.4	135.7	
Canned and frozen food	203	1.09	161.5	185.0	160.3	151.0	143.4	154.7	153.4	149.1	156.1	167.0	170.0	186.0	199.0	189.3	
Grain mill products	204	.94	135.8	137.9	139.4	140.6	139.5	137.6	135.6	136.7	143.8	146.1	149.0	153.5	150.5	153.7	
Flour	2041	.12	132.7	143.3	143.0	123.6	122.8	121.8	115.3	122.5	132.2	128.9	135.7	136.9	134.1	149.7	
Bakery products	205	1.00	133.2	137.0	129.4	127.7	128.0	125.5	127.6	126.6	132.0	146.4	151.0	156.7	157.9	147.0	
Beverages	208	1.41	134.4	135.7	129.7	122.7	124.7	127.0	126.7	133.8	139.1	144.6	149.4	149.9	146.8	139.6	
Beer and ale	2084,3	.38	114.6	106.3	96.4	92.0	113.1	115.9	115.2	126.8	128.3	130.2	130.0	119.2			
Wine and brandy	2084	.07	196.1	208.9	207.0	194.1	172.0	190.0	189.0	211.6	213.8	240.3	210.1				
Soft drinks	2086,7	.79	148.4	151.9	147.4	139.0	135.7	137.5	136.7	139.1	150.1	157.1	169.6	174.3	170.6	158.0	
Liquors	2085	.16	86.4	94.2	88.6	85.5	78.0	75.2	78.4	90.4	78.7	76.7	71.0	76.3			
Fats and oils	207	.27	125.1	130.6	136.3	134.4	134.2	130.4	134.6	128.4	128.3	129.3	125.8	120.0	124.4	132.6	
Coffee & misc. foods	209	.79	159.5	169.8	163.2	161.3	159.5	156.6	152.2	148.5	153.0	160.3	165.0	168.9	161.3	165.7	
TOBACCO PRODUCTS																	
Cigarettes	211	.62	103.5	116.4	108.3	88.0	102.2	113.8	109.6	104.0	102.5	112.8	87.0	113.4	107.1		
Cigars	212	.02	56.5	63.5	60.0	46.5	57.7	58.7	57.4	55.8	57.3	51.7	38.7	62.0			
TEXTILE MILL PRODUCTS																	
Fabrics	221-4	2.29	115.9	123.6	118.0	104.8	108.6	115.2	117.2	118.0	117.0	118.9	109.4	123.6	120.5	121.2	
Cotton fabrics	221	.77	106.8	115.6	112.3	94.1	108.3	110.2	110.7	106.4	105.6	104.8	89.4	108.9	106.5	106.4	
Synthetic fabrics	222	.40	93.3	101.7	98.3	81.1	96.5	96.0	96.7	94.3	93.5	94.2	81.5	97.1	94.5	93.8	
Knit goods	225	.55	110.6	117.6	105.6	100.6	94.6	109.8	113.0	117.3	113.6	124.3	122.3	128.7	129.5	123.7	
Hosiery	2251,2	.12	155.4	170.6	141.0	134.7	147.7	164.5	158.2	180.8	155.6	158.5	175.8	171.3	163.5		
Knit garments	2253,4,7-9	.43	97.8	102.5	95.5	90.9	79.4	94.2	100.1	99.2	101.6	114.6	107.0	116.5	119.8	110.5	
Carpeting	227	.22	157.1	174.8	167.5	141.1	133.5	142.5	149.1	165.8	168.9	167.3	168.1	159.1	162.9	176.1	
Yarns & misc. text.	228,9	.55	127.8	131.0	129.2	116.6	123.9	127.0	128.2	126.0	126.5	122.0	109.6	135.2	123.0	126.8	
APPAREL PRODUCTS																	
Lumber and products	24	2.30	130.3	137.0	130.7	120.3	128.5	135.2	136.1	139.2	141.3	143.4	134.2	139.2	141.2	143.4	
Logging and lumber	241,2	1.05	117.6	125.7	119.2	109.4	122.7	130.0	127.1	133.0	132.4	134.3	125.5	125.7	130.5	137.8	
Lumber products	243-5,9	1.25	140.8	146.5	140.2	129.4	133.2	139.6	143.7	144.3	148.8	151.1	141.4	150.4	149.2		
Millwork & plywood	243	.67	175.7	181.4	176.4	163.2	169.3	174.9	179.1	177.2	184.2	186.4	176.9	186.0	182.7		
Manufactured homes	245	.25	85.1	96.4	77.5	59.6	59.2	69.5	78.7	86.0	87.6	95.1	76.7	92.0	90.7	91.5	
FURNITURE AND FIXTURES																	
Household furniture	251	.74	123.1	128.1	125.2	123.4	120.9	131.1	130.9	125.7	123.5	131.3	116.7	135.0	137.8	135.1	
Fixt., office furn.	252,4,9	.47	201.5	214.2	213.5	208.4	201.6	219.0	208.8	205.0	204.4	213.0	217.0	229.0	228.0	225.0	
PAPER AND PRODUCTS																	
Pulp and paper	261-3	3.15	144.4	148.7	146.9	142.0	150.2	152.0	153.7	151.1	148.2	150.3	146.8	152.0	151.7	155.5	
Wood pulp	261	.44	127.2	127.2	124.9	129.6	132.3	132.1	131.2	129.8	125.3	128.4	131.0	132.2	129.9		
Paper	262	.44	135.3	136.6	140.7	134.5	141.6	142.7	143.7	141.0	140.2	139.5	136.0	141.2	141.9	143.6	
Paperboard	263	.44	134.0	132.7	135.1	132.2	138.1	139.4	139.6	134.8	138.7	136.3	135.2	137.1	135.2	136.4	
Converted paper prod.	264	1.03	171.7	176.0	179.5	174.3	180.5	183.5	187.3	181.4	179.3	182.6	176.1	185.0	184.6	185.7	
Paperboard containers	265	.75	131.8	143.5	128.7	117.7	134.3	136.8	138.5	141.0	132.4	136.9	132.4	136.7	138.1		

Table 4A—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1987	1987			1988									
		Pro- por- tion	Ann. Avg.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
PRINTING & PUBLISHING	271	4.54	172.1	175.2	175.7	176.9	177.5	178.7	180.4	181.8	180.7	182.3	184.9	186.7	188.7	189.3
Newspapers	2711	1.35	146.2	148.3	148.6	146.6	148.5	148.6	150.4	146.5	144.3	146.5	150.4	148.7	152.7	148.2
Periodicals, books, cards	272,3,7	1.24	160.5	160.0	159.5	169.1	165.1	164.5	170.2	173.6	171.6	174.5	174.3	177.6	180.1	181.5
Job printing	274-6,8,9	1.95	197.4	202.2	204.0	202.9	203.9	209.6	208.5	212.5	213.6	211.9	215.6	218.0	219.7	221.5
CHEMICALS & PRODUCTS	281	8.05	140.2	141.5	144.4	147.9	147.9	145.4	146.4	148.9	149.1	150.5	153.4	154.8	155.5	156.5
Chemicals & syn. mat.	281,2,6	3.86	135.6	139.5	143.1	143.6	143.0	138.4	140.5	143.2	142.0	142.6	146.2	147.0	146.2	147.4
Basic chemicals	2811	.92	104.9	103.5	112.3	107.1	104.3	96.2	101.4	104.8	102.7	101.8	103.4	104.0	106.8	104.6
Alkalies & chlorine	2812	.12	103.4	105.2	114.8	108.5	104.6	103.7	106.2	102.2	91.9	90.1	93.7	99.6	108.1	110.6
Industrial Gases	2813	.10	150.3	157.0	157.3	164.7	156.5	155.0	153.4	151.4	157.5	153.8	159.7	157.7	159.9	
Inorganic pigments	2816	.08	100.5	99.3	111.4	97.6	107.1	101.4	104.2	103.5	112.5	99.1	102.1	107.1	100.4	95.6
Inorganic chem, nec	2819	.62	98.2	94.7	104.4	98.4	95.0	84.3	91.4	97.6	94.3	95.6	96.0	95.4	98.4	94.8
Acids & other chem.		.40	102.0	97.3	112.4	106.0	100.8	84.7	96.1	104.4	98.8	100.8	100.9	100.0	104.8	99.0
Synthetic materials	2821	1.11	181.7	186.9	191.6	194.8	192.8	184.6	186.3	193.0	190.8	192.8	199.6	201.8	192.8	197.9
Plastics materials	2821	.59	252.5	261.0	267.7	277.3	273.7	257.8	262.1	271.3	267.5	269.2	278.9	288.5	274.2	
Synthetic rubber	2822	.08	92.7	95.0	97.9	106.3	93.0	94.1	96.2	96.5	104.7	101.4	97.3	104.7	101.9	
Synthetic fibers	2823,4	.44	104.3	105.5	104.0	101.7	103.8	104.3	102.5	107.0	104.9	108.4	113.4	104.7	101.6	108.7
Indust. organic chem.	286	1.83	122.9	128.9	129.0	130.7	132.2	131.5	132.3	132.3	132.1	132.6	135.1	135.4	137.7	138.2
Chemical products	283-5,9	3.65	152.1	151.0	153.2	157.3	160.0	159.7	159.1	163.9	165.9	160.9	169.3	170.8	170.6	172.6
Drugs & medicines	2831	1.41	138.3	133.7	134.0	142.7	146.6	149.2	144.3	153.6	150.4	150.6	152.9	155.0	153.4	153.2
Soap & toiletries	284	1.34	188.9	187.3	192.6	195.5	196.7	193.2	197.7	200.6	211.3	213.7	215.2	216.3	217.0	219.7
Paints	285	.40	100.5	107.9	100.5	104.7	110.6	106.1	103.2	105.3	102.8	100.7	105.9	106.5	107.2	116.3
Agricultural chemicals	287	.54	92.4	94.7	96.6	99.5	102.1	101.6	99.9	100.2	99.6	94.1	101.6	103.1	96.9	100.4
PETROLEUM PRODUCTS	29	2.40	93.5	94.6	93.3	96.1	96.3	95.9	98.4	98.5	95.2	94.1	95.0	96.0	93.6	96.2
Petroleum refining	291,9	2.21	92.0	93.5	92.4	95.0	94.3	93.0	96.2	96.4	93.1	92.3	93.7	95.1	92.2	94.9
Automotive gasoline		.96	97.2	97.3	97.3	97.5	96.6	99.3	98.8	101.2	96.7	95.9	99.4	100.2	97.2	101.3
Distillate fuel oil		.43	83.2	83.9	87.2	91.8	91.8	84.5	89.1	91.9	89.6	88.0	85.0	86.8	83.6	85.2
Residual fuel oil		.15	50.5	52.3	49.9	50.0	52.6	53.1	54.7	52.9	51.1	55.8	58.1	52.8	51.3	52.3
Aviation fuel & aeros.		.18	122.2	129.5	125.0	129.8	124.5	123.7	129.3	121.0	123.1	123.9	123.8	123.9	125.2	121.5
Misc. petroleum prod.		.48	91.5	94.4	88.7	94.1	94.1	89.4	98.4	95.8	91.2	89.0	90.6	95.3	90.7	
Refinery fuel, nec		.09	126.2	126.6	128.6	131.4	138.1	135.2	140.2	139.3	135.1	129.6	133.7	133.1		
Refinery nonfuel mat.		.26	74.4	77.1	72.4	77.1	76.6	65.6	73.9	77.6	68.4	67.3	69.2	77.6		
Refinery products, nec		.13	101.8	106.0	94.1	102.5	95.0	105.4	118.2	102.5	100.6	104.3	103.5	104.7		
RUBBER & PLASTICS PROD.	30	2.80	163.6	166.7	169.9	170.6	170.5	172.3	172.2	172.3	173.4	174.4	175.4	175.3	175.2	176.0
Tires	301	.62	119.3	123.9	125.3	122.5	122.7	122.9	122.4	122.0	126.2	128.0	129.0	124.1	124.9	139.7
Rub.prod.ex.tires	302-4,6	.51	126.0	124.0	127.9	135.4	134.5	137.0	135.8	137.8	136.7	139.8	139.7	140.2	139.6	139.7
Plastics products, nec	307	1.67	191.7	195.5	199.7	199.5	198.6	203.5	201.1	200.5	202.0	203.4	203.7	205.3	203.7	205.4
LEATHER AND PRODUCTS	31	.53	60.0	59.6	60.7	57.5	58.3	59.7	59.5	58.0	57.1	58.9	59.1	59.4	59.5	59.8
Pers. leather gds	313,5-7,9	.16	77.3	79.0	79.0	77.1	77.9	76.2	77.2	75.7	77.1	75.3	77.1	78.7	77.7	78.1
Shoes	314	.29	51.4	50.2	51.2	45.9	46.5	52.4	50.3	48.9	47.3	49.7	48.5	50.4	50.5	50.2
CLAY, GLASS & STONE PROD.	32	4.72	119.1	118.9	120.5	120.7	120.4	121.6	122.5	121.4	121.5	123.4	122.4	122.6	122.8	122.6
Pressed & blown glass	322	.51	109.0	106.5	101.8	109.1	105.7	104.4	107.4	109.8	107.7	109.5	107.7	108.1	108.3	106.9
Glass containers	3221	.30	95.5	93.3	84.3	97.2	90.5	86.9	93.0	95.6	92.5	95.7	91.9	91.3	90.0	
Cement	324	.24	103.3	107.1	104.6	104.7	96.8	87.4	107.4	100.8	104.6	105.5	98.0	98.8	102.9	
Structural clay prod.	325	.15	135.8	140.3	135.8	136.9	136.2	146.4	142.3	141.1	142.2	140.6	135.8	141.1	138.2	134.6
Brick	3251	.07	99.5	99.8	101.2	105.5	100.5	109.0	110.2	103.7	100.2	102.7	99.7	103.0	97.8	94.7
Clay sewer pipe	3259	.02	35.6	37.4	38.8	39.7	39.4	43.1	37.4	34.6	37.1	34.8	35.1	39.4	37.2	39.1
Clay tile	3253,5	.07	199.6	209.1	197.1	195.0	198.5	212.2	203.2	207.7	213.2	207.5	199.6	207.2	206.4	200.7
Concrete and misc.	326-9	1.55	121.6	121.1	123.9	123.1	125.0	125.4	127.0	123.7	124.4	126.7	126.0	125.8	127.5	125.4
PRIMARY METALS	33	5.33	81.3	90.6	90.2	90.6	86.5	86.4	85.1	85.3	89.2	87.5	91.5	90.8	93.0	94.3
Iron and steel	331,2	3.49	70.6	82.0	79.7	81.9	77.8	77.4	74.2	74.5	78.6	74.2	80.2	78.9	81.4	83.7
Basic st. & mill prod.	331	2.60	75.4	87.2	85.5	87.0	83.1	83.9	80.3	80.8	84.8	80.4	91.2	85.6	89.4	91.7
Basic iron and steel		1.11	64.3	73.4	74.2	74.0	73.7	70.4	70.8	68.1	71.3	70.1	76.2	77.5	79.4	75.7
Pig iron		.42	59.5	69.2	69.6	71.7	71.0	65.8	65.1	62.4	64.1	63.8	69.4	69.7	75.2	73.0
Raw steel		.51	70.9	78.9	80.2	79.4	80.1	76.1	76.8	74.0	79.6	77.7	84.4	87.0	86.5	80.6
Steel mill products		1.49	83.7	97.4	94.0	96.7	90.2	93.9	87.3	90.2	94.8	88.0	102.4	91.6	96.8	103.6
Consumer dur. steel		.38	54.2	59.3	56.6	56.2	49.1	57.3	55.3	57.8	63.6	58.8	61.7	60.7	63.6	70.9
Equipment steel		.36	43.1	52.3	51.4	53.5	52.2	50.6	49.4	50.3	50.3	49.6	53.4	45.4	48.9	53.7
Construction steel		.19	73.7	90.7	84.1	88.1	81.0	80.1	73.8	73.9	76.0	65.4	79.0	70.5	78.4	84.2
Can & closure steel		.10	63.2	64.4	60.1	89.4	56.4	55.9	57.2	69.3	67.9	61.9	69.5	60.5	64.2	74.2
Misc. steel		.46	147.8	173.6	169.0	168.6	164.4	171.3	155.1	158.9	168.3	156.7	190.4	168.0	175.8	183.4
Iron & steel foundries	332	.89	56.4	65.8	58.0	61.8	57.9	56.4	59.4	58.3	64.6	54.3	53.6	55.6	57.6	64.6
Nonferrous metals	333-6,9	1.85	101.6	106.9	110.0	107.0	103.0	103.5	105.7	105.6	109.1	112.7	112.7	113.3	115.0	114.2
Primary nonf. metals	333	.51	84.2	90.2	91.1	91.7	90.0	91.3	94.0	90.3	92.5	93.6	99.1	97.2	99.0	98.9
Copper	3331	.13	93.0	105.3	99.6	105.5	103.4	103.0	106.8	93.2	99.5	94.3	104.8	121.5	120.2	100.6
Aluminum	3334	.28	81.2	86.4	89.1	89.8	91.2	92.3	93.9	94.6	94.4	95.4	97.1	97.2	97.4	97.3
Secondary nonf. mtl.	334	.11	75.3	75.6	76.5	80.6	81.1	78.1	81.4	74.2	74.8	77.5	86.4	77.6	76.9	
Nonferrous products	335,6	1.12	111.8	117.3	120.7	119.7	110.8									

Table 4B—continued
INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES
 Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1987	1987 OCT	NOV	DEC	1988									
		Pro- por- tion	Ann- Avg.				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
PRINTING & PUBLISHING	27	4.54	172.1	183.7	174.9	169.5	161.7	168.9	170.2	173.8	175.4	166.1	194.8	206.0	207.0	198.4
Newspapers	271	1.35	146.2	159.4	162.8	148.7	133.6	145.6	150.4	150.1	148.3	146.4	137.3	142.2	154.5	159.2
Periodicals, books, cards	272,3,7	1.24	160.5	163.1	154.5	157.9	152.7	156.6	158.6	163.4	165.5	178.3	189.2	202.5	200.9	185.0
Job printing	274-6,8,9	1.95	197.4	213.7	196.3	191.3	186.8	192.8	191.4	196.8	200.5	218.5	238.3	252.5	247.3	234.0
CHEMICALS & PRODUCTS	28	8.05	140.2	143.8	142.6	141.3	140.9	143.9	145.4	148.3	149.0	155.1	156.0	157.6	162.0	158.4
Chemicals & syn. mat.	281,2,6	3.86	135.6	140.3	142.1	141.1	138.5	141.5	143.0	145.2	142.4	144.9	143.0	143.6	148.5	148.2
Basic chemicals	2811	.92	104.9	105.5	109.9	103.6	99.9	101.6	103.0	105.0	102.3	105.0	100.9	100.9	108.5	106.6
Alkalies & chlorine	2812	.12	103.4	102.7	109.6	107.0	98.3	105.7	107.0	106.2	94.0	94.6	94.0	96.8	109.9	108.0
Industrial Gases	2813	.10	150.3	155.0	158.7	160.0	153.3	159.5	157.4	155.7	158.7	154.7	153.6	155.6	161.1	
Inorganic pigments	2816	.08	100.5	95.3	106.0	96.0	100.3	105.1	103.9	109.2	109.1	110.6	101.7	99.7	107.2	91.7
Inorganic chem, nec.	2819	.62	98.2	99.0	102.3	94.4	91.1	90.7	93.0	95.7	93.5	97.9	93.3	92.6	99.6	99.2
Acids & other chem.		.40	102.6	104.0	109.4	99.7	94.8	95.1	98.3	101.2	97.1	104.1	96.9	95.9	106.9	106.0
Synthetic materials	282	1.11	181.7	187.7	188.8	187.2	182.0	192.1	194.4	200.1	192.7	196.7	191.2	194.3	198.7	198.8
Plastics materials	2821	.59	252.5	263.2	264.7	263.4	254.2	267.1	276.0	281.6	270.3	275.7	267.9	278.1	283.9	
Synthetic rubber	2822	.08	92.7	95.4	96.0	93.5	94.4	98.1	103.0	103.2	105.5	101.8	92.6	100.1	102.8	
Synthetic fibers	2823,4	.44	104.3	104.6	105.3	103.3	102.3	109.8	103.1	110.0	105.7	109.6	107.4	100.4	103.5	107.8
Indust. organic chem.	286	1.83	122.9	128.9	129.9	131.9	131.5	130.7	131.9	132.0	132.0	133.5	134.9	134.2	138.1	138.3
Chemical products	283-5,9	3.65	152.1	154.4	149.7	147.9	149.9	152.9	154.1	157.8	163.0	174.7	178.4	181.4	184.5	176.6
Drugs & medicines	283	1.41	138.3	138.3	131.2	133.8	133.8	136.1	135.1	145.6	144.9	161.4	169.0	169.0	170.0	158.5
Soap & toiletries	284	1.34	188.9	192.7	191.5	188.2	188.1	191.2	193.4	189.4	204.9	216.0	222.0	227.0	235.2	226.0
Paints	285	.40	100.5	103.7	88.9	74.1	91.0	99.8	106.4	117.4	118.1	123.3	112.2	117.0	111.1	112.3
Agricultural chemicals	287	.54	92.4	96.5	97.3	98.7	97.7	100.8	102.5	106.1	101.6	94.4	96.1	97.7	99.3	102.3
PETROLEUM PRODUCTS	29	2.40	93.5	95.1	95.4	96.7	91.7	89.8	92.2	94.7	95.6	98.2	99.4	100.9	97.2	96.7
Petroleum refining	291,9	2.21	92.0	92.4	93.1	95.4	91.8	89.8	91.7	93.6	93.3	95.9	96.9	98.3	94.4	93.7
Automotive gasoline		.96	97.2	94.7	98.3	99.8	95.6	95.8	95.2	98.2	97.4	99.3	101.8	102.4	98.5	98.6
Distillate fuel oil		.43	83.2	84.6	92.7	98.7	91.6	81.7	82.9	87.4	89.3	88.1	84.8	86.6	84.7	86.0
Residual fuel oil		.15	50.5	50.5	52.8	57.2	57.6	56.9	53.9	54.3	49.4	50.3	52.1	49.3	49.0	50.6
Aviation fuel & keros.		.16	122.2	131.0	128.5	132.5	130.1	128.2	130.3	115.2	115.5	120.2	123.3	123.1	125.2	122.9
Misc. petroleum prod.		.48	91.5	93.8	82.6	82.2	81.2	81.3	90.3	94.5	94.6	101.6	102.5	107.1	98.2	
Refinery fuel, nec		.09	126.2	122.2	125.1	130.8	132.7	131.0	134.4	134.2	137.2	137.5	139.5	141.2		
Refinery nonfuel mat.		.26	74.4	71.5	65.5	70.1	70.8	67.2	75.7	79.8	69.8	75.0	75.6	79.3		
Refinery products, nec		.13	101.8	118.3	87.4	73.4	67.4	89.6	96.7	114.5	129.4	130.3	138.8			
RUBBER & PLASTICS PROD.	30	2.80	163.6	172.4	167.9	160.9	161.1	178.6	175.9	173.8	173.0	178.4	166.2	177.9	181.0	182.1
Tires	301	.62	119.3	131.7	119.9	110.3	124.2	132.3	131.9	127.5	123.0	127.4	109.6	124.1	129.6	
Rub. prod. ex. tires	302-4,6	.51	126.0	126.6	128.4	130.7	127.9	140.1	139.6	138.2	139.3	142.7	131.9	140.7	141.9	142.6
Plastics products, nec	307	1.67	191.7	201.5	198.9	189.9	185.0	207.6	203.3	201.9	201.8	208.2	197.5	209.2	212.0	211.7
LEATHER AND PRODUCTS	31	.53	60.0	62.8	62.4	53.9	56.2	62.0	60.8	57.9	58.0	59.5	51.0	62.0	61.7	63.0
Pers. leather gds	313,5-7,9	.16	77.3	83.5	83.2	77.8	74.3	73.8	76.0	74.2	75.7	76.7	72.1	80.0	80.9	82.5
Shoes	314	.29	51.4	53.3	52.1	40.1	45.3	56.2	53.2	49.1	48.8	50.1	40.0	53.2	51.4	53.3
CLAY, GLASS & STONE PROD.	32	2.72	119.1	124.6	120.7	113.9	112.1	114.7	120.1	121.7	123.8	127.5	123.4	127.6	127.8	128.2
Pressed & blown glass	322	.51	109.0	111.3	100.7	92.7	98.0	106.3	109.0	111.9	110.5	112.5	111.6	113.2	110.3	111.6
Glass containers	3221	.30	95.5	98.8	80.6	72.7	83.7	92.4	95.1	100.0	97.1	99.4	98.8	97.8	90.4	95.4
Cement	324	.24	103.3	126.6	103.3	76.5	55.4	58.7	96.3	105.4	117.2	129.5	115.6	123.0	123.0	
Structural clay prod.	325	.15	135.8	145.8	139.5	130.9	129.5	141.3	140.4	142.2	142.7	144.0	124.9	146.0	145.6	139.8
Brick	3251	.07	99.5	108.2	100.7	98.3	87.5	97.0	103.6	106.0	104.7	109.7	100.5	109.7	105.7	102.6
Clay sewer pipe	3259	.02	35.6	40.1	38.1	33.9	33.1	33.5	35.8	36.6	37.8	38.6	41.1	40.9	41.7	41.9
Clay tile	3253,5	.07	199.6	212.4	206.2	190.1	196.2	215.3	205.9	207.5	209.5	216.2	172.3	211.1	214.1	203.9
Concrete and misc.	326-9	1.55	121.6	125.5	126.2	121.6	120.7	120.9	124.1	123.3	125.1	127.9	125.3	126.8	125.4	129.9
PRIMARY METALS	33	5.33	81.3	88.7	85.6	83.7	84.7	90.0	91.7	92.3	94.8	90.6	85.4	85.9	90.5	92.8
Iron and steel	331,2	4.49	70.6	78.7	73.9	74.1	75.1	80.1	80.4	82.7	85.6	77.8	76.7	73.7	78.0	81.1
Basic st. & mill prod.	331	2.60	75.4	81.6	80.0	81.9	82.2	87.6	86.6	88.9	91.4	84.5	86.2	80.2	85.1	85.9
Basic iron and steel		1.11	64.3	69.6	70.2	68.9	72.4	74.2	76.3	75.5	77.0	72.7	73.5	71.3	74.3	71.8
Pig iron		.42	59.5	63.9	65.1	64.4	67.9	68.8	70.2	70.4	71.4	67.3	69.0	66.4	69.1	67.3
Raw steel		.51	70.9	76.6	76.8	75.6	79.7	81.3	84.2	82.1	84.3	79.1	79.1	77.3	81.4	78.2
Steel mill products		1.49	83.7	90.6	87.3	91.6	89.5	97.5	94.1	98.8	102.0	93.2	95.5	86.8	93.1	96.4
Consumer dur. steel		.38	54.2	57.4	53.8	50.2	53.1	60.4	57.6	62.2	68.0	61.5	54.2	56.6	63.6	68.6
Equipment steel		.36	43.1	49.0	47.9	49.1	49.6	54.0	53.5	55.7	54.4	51.4	48.5	45.2	48.1	50.2
Construction steel		.19	73.7	84.6	78.6	79.5	75.2	77.9	75.7	79.0	82.7	74.6	80.0	70.3	77.6	78.6
Cap & closure steel		.10	63.2	57.7	55.7	84.1	57.5	56.0	58.9	70.2	69.5	67.0	71.5	63.3	63.7	66.4
Misc. steel		.46	147.8	159.8	155.6	165.3	163.1	178.4	170.7	176.6	181.7	165.0	177.5	155.7	164.9	168.7
Iron & steel foundries	332	.89	56.4	70.0	55.9	50.9	54.1	58.1	62.3	64.4	66.7	58.3	48.9	54.9	57.1	68.8
Nonferrous metals	333-6,9	1.85	101.6	107.6	107.8	101.9	102.7	108.6	112.9	110.4	112.1	114.6	101.7	108.8	114.0	114.9
Primary nonf. metals	333	.51	84.2	89.6	91.0	91.2	91.1	94.6	97.3	94.3	95.7	93.7	91.5	92.2	95.0	98.3
Copper	3331	.13	93.0	103.8	100.9	101.9	103.6	105.9	112.3	102.8	107.5	100.0	96.3	107.9	107.9	99.2
Aluminum	3334	.28	81.2	86.2	88.9	90.3	91.4	93.1	94.4	95.6	96.0	95.5	95.4	95.1	96.5	97.1
Secondary nonf. mts.	334	.11	75.3	79.8	78.4	74.5	75.6	83.9	84.2	76.9	74.1	78.1	75.8	76.4	81.1	
Nonferrous products	335,6	1.12	111.8	118.2	118.0	109.2										

Table 4A—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Seasonally adjusted, 1977 = 100

Series	SIC Code	1977	1987	1987 OCT	NOV	DEC	1988									
		Pro- tion	Ann. Avg.				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT
FABRICATED METAL PRODUCTS	34	6.46	111.0	113.5	113.6	115.8	117.1	117.6	118.8	118.8	119.8	120.4	121.7	122.1	122.6	122.9
Metal containers	3411	.52	91.7	91.7	96.4	91.7	96.5	98.1	98.6	95.8	99.6	97.6	98.9	100.6	99.5	101.5
Hardware, tools, cutlery	3421	.73	103.5	103.3	102.8	106.2	105.8	107.5	109.0	109.8	112.8	112.4	113.4	113.2	114.3	114.6
Structural metal prod.	344	1.67	109.5	110.1	111.5	111.4	113.7	112.1	113.1	114.9	115.4	115.7	116.7	115.4	116.0	117.3
Fasteners, stamp, etc.	345-7	1.95	116.7	122.4	119.8	123.4	126.7	128.1	128.2	128.8	129.0	130.8	131.8	131.6	131.9	133.1
Nonelectrical machinery	35	9.54	152.7	158.0	157.2	161.0	162.9	163.6	164.6	167.2	170.3	171.2	173.1	174.1	175.0	175.3
Engine & farm equip.	351,2	1.48	64.3	68.5	69.7	69.7	71.3	70.7	70.3	73.4	72.9	73.2	74.7	74.4	75.1	76.0
Construct. & allied eq.	353	1.68	73.9	77.2	77.6	77.9	76.9	77.3	79.7	81.2	83.2	84.2	86.3	86.0	87.4	87.4
Metalworking, machinery	354	1.24	135.9	136.8	136.7	141.4	142.5	142.8	144.7	144.4	144.2	150.4	153.5	154.6	155.5	156.0
Spec. & genl. ind. eq.	355,6	2.12	102.2	105.9	104.7	107.0	109.8	108.0	111.2	111.5	112.6	114.2	116.0	116.0	117.0	118.5
Office, serv. & misc.	357-9	5.02	282.6	291.7	287.2	302.0	303.6	307.5	304.9	309.6	318.0	317.3	316.6	320.0	321.4	319.0
ELECTRICAL MACHINERY	36	7.15	172.3	175.5	175.6	175.9	177.4	177.8	176.6	178.7	179.1	179.5	181.5	182.2	181.7	183.1
Major elect. eq. & pts	361,2	1.27	97.2	97.3	97.6	100.4	99.0	103.0	102.5	101.6	101.9	104.8	106.0	106.9	105.4	105.0
Household appliances	363	.75	134.5	135.7	143.1	132.5	139.0	135.8	126.8	133.8	136.9	123.5	135.4	142.1	129.2	150.3
Cooking equipment	3631	.11	228.8	242.5	243.3	208.3	237.0	219.3	206.0	209.4	195.3	164.2	219.1	222.4	203.4	254.4
Refrigeration appl.	3632	.17	115.0	115.5	132.8	121.7	119.2	121.6	102.4	113.0	121.8	105.5	108.2	131.6	105.6	136.2
Laundry appliances	3633	.12	155.3	148.6	167.7	145.8	152.1	152.6	148.2	164.7	179.8	165.6	155.3	166.9	141.5	168.7
Misc. appliances	3634-6,9	.35	106.8	107.2	108.1	109.2	113.0	110.5	106.1	109.2	110.9	104.8	115.0	113.2	112.7	117.8
TV and radio sets	365	.44	155.2	156.7	164.4	165.0	146.6	155.5	143.3	157.6	154.5	148.8	157.6	159.2	163.8	152.3
Communication equipment	366	2.01	221.0	220.3	218.8	217.7	223.4	222.9	221.0	221.6	221.4	221.1	221.3	221.1	218.0	215.7
Electronic components	367	1.31	250.1	261.9	263.7	268.6	266.8	268.2	270.6	270.5	274.2	277.3	282.3	282.9	283.1	286.6
TV tubes	3671-3	.13	135.1	156.6	150.2	180.2	114.4	119.8	122.8	119.8	135.9	139.2	145.5	166.8	165.7	
Misc. electrical supp.	369	.70	124.9	128.4	125.4	124.5	131.6	129.1	131.0	132.9	131.8	135.6	136.6	131.7	133.9	136.4
Storage battery, repl.	3691	.13	128.3	134.8	114.0	112.9	148.1	135.3	140.3	143.9	138.1	144.4	154.2	131.2	133.2	133.9
TRANSPORTATION EQUIPMENT	37	9.13	129.2	132.0	130.4	128.1	128.6	128.4	130.0	130.4	133.1	132.8	131.9	131.8	132.6	134.3
Motor vehicles & parts	371	5.25	111.8	116.0	114.0	110.2	109.7	109.3	113.0	114.8	119.6	119.1	116.6	117.5	118.5	121.4
Autos, total		1.82	103.5	108.1	104.9	95.5	88.4	90.8	98.5	103.8	112.9	113.0	107.1	106.2	111.5	115.7
Consumer		1.16	90.7	94.7	91.9	83.7	77.5	79.5	86.3	91.0	98.9	99.0	93.8	93.0	97.7	101.3
Business		.66	126.2	131.8	127.9	116.5	107.8	110.7	120.1	126.6	137.6	137.7	130.6	126.9	135.9	141.0
Trucks and buses		1.03	147.0	159.8	152.9	153.7	160.9	154.9	159.9	154.5	159.2	157.3	157.4	162.8	158.4	163.3
Business vehicles		.41	126.2	139.1	129.0	144.8	134.0	129.1	140.9	133.5	129.0	131.4	136.7	137.9	132.4	140.0
Consumer trucks		.63	160.5	173.2	168.5	159.5	178.3	171.6	172.2	168.2	178.9	174.1	170.8	179.0	175.3	178.4
Truck trailers	3715	.09	142.9	140.8	135.9	126.6	146.8	160.6	149.6	155.0	148.5	153.7	165.7	159.8	165.3	156.0
Motor vehicle parts	3714	2.31	101.3	101.8	102.9	101.7	102.1	101.4	101.9	104.2	106.0	105.5	103.9	104.4	104.4	105.7
Aircraft and parts	372	2.09	168.5	170.0	170.3	171.5	173.2	168.7	165.8	164.5	165.9	167.6	169.4	167.4	167.2	166.6
Ships and boats	373	.66	83.6	85.6	85.1	87.7	89.6	89.8	89.7	89.4	88.9	86.2	86.5	85.2	88.0	
Rail & misc trans eq.	374-6,9	1.11	164.5	163.4	161.7	159.9	161.6	163.1	164.9	161.7	159.1	157.0	159.4	159.4	162.9	162.4
Railroad equipment	374	.27	15.8	18.1	21.1	17.5	20.1	31.3	37.5	33.4	30.1	27.0	28.6	29.7	30.2	
INSTRUMENTS	38	2.66	143.9	146.7	147.8	145.5	148.2	149.2	149.7	150.5	151.3	153.0	156.4	156.8	158.0	159.1
Equipment instr. & pts	381-4	1.52	172.0	176.7	178.7	177.4	176.4	179.3	181.1	182.2	181.7	182.7	184.0	185.7	187.4	191.2
MISC. MANUFACTURES	39	1.46	102.5	104.6	104.5	105.6	105.0	104.4	105.1	105.9	106.0	107.6	107.8	108.3	108.5	107.9
Misc. cons. goods	391,3,4,6	.84	101.9	106.1	104.3	108.7	104.3	105.6	104.3	106.5	104.6	107.1	106.5	106.5	105.9	106.0
Misc. bus. supplies	395,9	.62	103.3	105.1	108.0	101.8	102.4	104.2	102.4	105.7	107.2	107.3	108.7	110.7	113.0	112.7
ELECTRIC UTILITIES	49	4.17	126.6	126.8	127.5	125.6	130.3	130.7	129.0	127.6	129.7	132.1	134.6	138.8	131.9	132.4
Elec. util. generation		1.76	120.1	121.4	119.9	120.0	123.0	125.4	123.8	121.2	122.7	126.1	128.7	133.5	125.2	
Fossil fuel generation		1.41	112.8	112.3	112.5	112.0	113.9	118.2	116.1	113.7	114.7	117.6	119.5	125.0	114.3	
Hydro & nuclear gener.		.35	149.5	157.6	149.3	152.0	159.5	154.0	154.7	151.1	154.5	159.9	165.7	167.7	169.1	
Elec. util. sales		2.41	131.2	130.7	133.1	129.6	135.7	134.5	132.8	132.2	134.9	136.5	138.9	142.6		
Residential elec.		.95	132.8	130.0	132.0	130.2	136.4	136.5	136.5	131.1	132.7	136.7	140.8	150.0	137.5	
Nonresidential elec.		1.46	130.2	131.1	133.8	129.2	135.3	133.3	130.4	133.0	136.3	136.3	137.7	137.8		
Industrial elec.		.68	109.6	110.5	114.0	110.3	114.0	112.3	109.0	111.6	113.7	115.5	117.5	116.4	113.4	
Commercial & other elec.		.78	148.1	149.1	151.0	145.7	153.8	151.5	149.1	151.6	150.0	154.5	155.4	156.5	156.3	

Note: Seasonally adjusted industry totals are not aggregated from the seasonally adjusted components, but result from independent seasonal adjustment of the aggregated not seasonally adjusted components.

Table 4B—continued

INDUSTRIAL PRODUCTION: INDUSTRY SUBTOTALS AND INDIVIDUAL SERIES

Not seasonally adjusted, 1977 = 100

Series	SIC Code	1977			1988			1988									
		Pro- tion	Ann. Avg.	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	
FABRICATED METAL PRODUCTS	34	6.46	111.0	115.1	114.1	114.5	113.0	117.8	119.0	118.4	119.3	122.6	119.4	122.3	125.5	125.2	
Metal containers	341	.52	91.7	91.8	94.0	86.7	89.5	96.2	97.7	95.4	99.6	102.1	101.6	105.4	105.8	101.6	
Hardware, tools, cutlery	342	.73	103.5	105.7	102.8	103.0	100.1	109.8	110.1	107.8	110.8	114.4	111.7	115.7	118.7	117.3	
Structural metal prod.	344	1.67	109.5	113.7	114.3	114.4	110.0	107.5	108.9	111.0	113.4	117.1	116.8	118.1	120.3	121.0	
Pasteners, stamp, etc.	345-7	1.95	116.7	123.4	118.7	120.1	120.0	131.3	133.5	131.6	129.1	133.3	126.7	130.4	134.2	134.1	
NON-ELECTRICAL MACHINERY	35	9.54	152.7	160.4	155.2	155.5	157.0	162.0	162.7	162.0	167.3	175.0	176.7	182.3	182.8	177.6	
Engine & farm equip.	351,2	1.48	64.3	67.1	69.4	71.2	71.3	72.7	72.9	73.9	73.2	73.6	72.8	71.7	73.8	74.5	
Construct. & allied eq.	353	1.68	73.9	77.5	76.9	78.8	75.6	78.3	78.0	78.9	81.4	85.0	86.8	86.9	90.8	87.7	
Metalworking machinery	354	1.24	135.9	140.5	134.2	135.9	138.5	145.4	146.0	144.2	141.8	151.0	151.5	157.5	161.5	160.3	
Spec. & genl. ind. eq.	355,6	2.12	102.2	106.2	104.9	105.8	106.2	108.4	112.4	110.4	112.3	115.6	114.1	117.0	120.4	118.8	
Office, serv. & misc.	357-9	3.02	282.6	298.7	285.0	285.3	287.9	297.0	296.3	295.3	310.5	326.7	332.2	346.1	340.4	326.3	
ELECTRICAL MACHINERY	36	7.15	172.3	181.8	179.0	175.8	176.1	177.2	175.4	176.5	177.1	179.1	176.1	182.2	183.9	189.5	
Major elect. eq. & pts	361,2	1.27	97.2	100.2	96.7	97.1	96.6	100.9	101.7	99.4	101.0	106.8	106.4	109.6	110.5	108.2	
Household appliances	363	.75	134.5	151.8	139.0	114.0	138.3	143.2	130.0	139.4	137.9	127.0	120.9	134.6	133.5	167.9	
Cooking equipment	3631	.11	228.8	278.4	261.0	179.2	232.1	216.9	194.0	204.1	219.1	176.0	188.3	211.0	206.9	292.1	
Refrigeration appl.	3632	.17	115.0	124.9	112.7	85.5	117.3	135.8	113.5	131.9	130.9	115.0	108.6	101.0	109.7	147.1	
Laundry appliances	3633	.12	155.3	171.2	148.7	126.2	158.2	169.4	158.4	169.2	170.6	165.2	142.4	164.6	140.4	194.3	
Misc. appliances	3634-6,9	.35	106.8	117.9	109.5	102.8	111.8	113.9	107.9	112.3	104.5	104.1	98.1	116.0	119.2	129.5	
TV and radio sets	365	.44	155.2	204.5	188.5	142.4	136.0	146.3	125.3	144.0	149.4	140.8	151.3	176.2	169.5	199.5	
Communication equipment	366	2.01	221.0	220.2	221.3	227.7	223.9	221.4	222.4	220.0	219.0	220.6	217.3	218.2	217.6	215.6	
Electronic components	367	1.31	250.1	264.4	268.1	271.6	267.4	266.5	269.7	269.9	273.2	277.0	273.3	283.1	284.0	289.3	
TV tubes	3671-3	.13	135.1	184.2	163.1	132.2	122.2	124.7	118.5	129.1	145.8	123.4	126.4	177.3	156.8		
Misc. electrical supp.	369	.70	124.9	137.6	132.9	132.6	132.1	123.4	125.0	125.7	125.4	132.5	127.0	131.8	142.7	145.8	
Storage battery, repl.	3691	.13	128.3	175.7	144.0	132.4	147.9	112.4	112.9	108.3	105.8	126.1	127.4	142.3	173.9	174.5	
TRANSPORTATION EQUIPMENT	37	9.13	129.2	134.8	131.7	125.2	129.4	132.4	134.3	133.1	136.1	137.9	116.3	123.8	134.0	137.6	
Motor vehicles & parts	371	5.25	111.8	120.8	114.6	101.6	109.6	116.3	120.3	119.7	125.3	128.7	93.2	106.2	120.9	127.0	
Autos, total		1.82	103.5	117.1	107.1	81.7	89.2	103.7	111.1	112.7	123.1	129.6	68.3	85.1	111.4	125.7	
Consumer		1.16	90.7	102.6	93.8	71.6	78.2	90.8	97.3	98.8	107.9	113.5	59.9	74.6	97.6	110.2	
Business		.66	126.2	142.7	130.5	99.6	108.8	126.4	135.4	137.4	150.1	156.0	83.3	103.8	135.8	153.3	
Trucks and buses		1.03	147.0	167.9	150.8	126.0	158.9	169.0	174.1	163.8	170.4	173.7	115.8	149.0	167.9	173.7	
Business vehicles		.41	126.2	145.2	126.0	117.3	134.0	140.9	155.2	142.7	139.4	146.0	100.6	126.2	140.3		
Consumer trucks		.63	160.5	182.6	167.0	131.7	175.0	187.3	186.4	177.4	190.6	191.7	125.7	163.7	185.8	191.1	
Truck trailers	3715	.09	142.9	143.7	139.9	133.9	130.4	155.5	153.9	152.0	150.3	159.5	147.1	163.6	176.4	159.2	
Motor vehicle parts	3714	2.31	101.3	101.8	103.2	105.0	102.8	101.2	102.2	104.2	105.8	106.6	100.6	101.4	105.2	105.8	
Aircraft and parts	372	2.09	168.5	170.7	173.4	175.9	174.1	170.7	166.8	163.8	165.0	166.6	164.6	162.9	167.0	167.4	
Ships and boats	373	.66	83.6	84.7	85.6	88.5	90.0	90.6	91.2	91.5	91.4	89.4	83.6	83.0	83.1	87.0	
Rail & misc trans eq.	374-6,9	1.11	164.5	163.0	161.8	163.2	162.7	161.0	165.3	163.4	159.3	156.7	154.3	158.0	164.2	162.5	
Railroad equipment	374	.27	15.8	20.4	20.7	20.7	19.0	20.0	31.2	32.0	29.0	26.3	28.3	32.1	40.5		
INSTRUMENTS	38	2.66	143.9	148.9	147.2	144.7	144.6	146.6	148.1	147.9	148.8	155.8	158.5	161.0	162.7	160.3	
Equipment instr. & pts	381-4	1.52	172.0	178.0	175.3	171.8	169.6	174.5	177.9	177.1	179.0	187.4	190.4	194.4	198.7	192.8	
MISC. MANUFACTURES	39	1.46	102.5	108.8	102.8	99.5	97.8	105.2	103.7	104.0	104.2	109.8	107.1	113.9	116.5	112.0	
Misc. cons. goods	391,3,4,6	.84	101.9	111.1	100.6	101.1	98.3	103.8	104.3	104.7	104.4	110.8	105.1	112.0	114.2	111.0	
Misc. bus. supplies	393,9	.62	103.3	105.6	105.9	97.2	97.1	107.0	102.8	103.2	103.9	108.5	109.9	116.5	119.7	113.3	
ELECTRIC UTILITIES	49	4.17	126.6	117.0	119.7	124.9	139.1	137.3	123.0	117.6	117.3	135.0	146.0	152.9	137.1	122.0	
Elec. util. generation		1.76	120.1	111.8	113.9	121.1	130.5	127.4	117.3	111.0	114.2	132.1	141.7	147.6	125.0		
Fossil fuel generation		1.41	112.8	105.7	107.4	112.0	120.1	118.2	107.1	100.5	104.1	124.5	135.4	143.6	115.8		
Hydro & nuclear gener.		.35	149.5	136.0	140.2	157.6	172.1	164.1	158.5	152.8	154.7	162.5	166.8	163.6	161.5		
Elec. util. sales		2.41	131.2	120.8	123.9	127.6	145.3	144.5	127.2	122.4	119.6	137.2	149.1	156.8			
Residential elec.		.95	132.8	111.7	113.7	134.2	164.2	157.4	131.5	116.4	105.6	129.3	156.6	172.2	146.9		
Nonresidential elec.		1.46	130.2	126.8	130.5	123.4	133.0	136.1	124.4	126.4	128.8	142.3	144.2	146.7			
Industrial elec.		.68	109.6	109.2	114.8	105.2	108.8	114.3	107.0	110.1	112.7	119.2	116.5	120.0	118.1		
Commercial & other elec.		.78	148.1	142.1	144.2	139.3	154.1	155.0	139.5	140.5	142.8	162.4	168.4	170.0	169.3		

Note: Seasonally adjusted industry totals are not aggregated from the seasonally adjusted components, but result from independent seasonal adjustment of the aggregated not seasonally adjusted components.

Table 5
INDUSTRIAL PRODUCTION: INDEXES; 1977 = 100
 Quarterly averages, seasonally adjusted

SERIES	Quarterly Averages of Monthly Indexes									
	1986 Q2	Q3	Q4	1987 Q1	Q2	Q3	Q4	1988 Q1	Q2	Q3
Industrial production	124.4	124.8	125.9	126.9	128.2	131.0	133.2	134.5	136.0	138.4
Products, total	132.5	133.3	134.5	135.6	136.8	139.6	141.1	143.2	144.8	147.1
Final products	131.6	132.4	133.3	134.4	135.4	138.0	139.5	141.5	143.3	145.6
Consumer goods	123.8	124.4	125.4	126.2	126.7	128.7	129.4	131.2	132.5	134.7
Durable consumer goods	114.3	116.5	117.9	119.9	118.1	120.1	122.8	120.9	124.7	125.8
Automotive products	115.1	116.9	115.3	120.3	116.2	116.6	120.4	119.0	125.4	125.0
Home goods	113.6	116.2	119.9	119.5	119.5	122.7	124.7	122.4	124.2	126.4
Nondurable consumer goods	127.3	127.3	128.2	128.6	129.9	131.9	131.9	135.1	135.4	138.0
Equipment, total	142.1	143.0	143.7	145.3	146.9	150.4	152.8	155.2	157.6	160.0
Business & defense equipment	146.9	148.4	148.7	150.4	152.1	154.7	157.2	160.1	162.5	165.1
Business equipment	138.4	139.4	139.2	140.7	142.6	145.8	148.9	152.3	156.5	160.1
Defense and space equipment	180.2	183.6	185.8	188.3	189.0	189.2	189.3	190.5	186.0	184.8
Intermediate products	135.5	136.8	138.5	139.9	141.8	145.1	146.6	149.2	150.0	152.3
Construction supplies	125.5	126.9	127.7	130.2	129.6	132.6	133.8	137.5	138.0	138.4
Business supplies	143.9	145.1	147.7	148.1	152.2	155.7	157.6	159.3	160.2	164.2
Commercial energy products	128.7	127.4	129.6	127.7	130.9	133.6	133.1	135.2	136.6	137.2
Materials	113.3	113.0	114.3	115.0	116.5	119.2	122.5	122.5	124.0	126.5
Durable goods materials	119.4	119.0	120.7	121.4	122.9	125.7	130.3	131.5	134.1	137.1
Basic metal materials	79.1	77.5	80.2	75.4	81.8	89.4	97.3	91.6	93.4	98.7
Nondurable goods materials	116.5	118.3	120.3	121.2	124.0	128.2	130.1	129.4	130.4	132.9
Textile, paper, & chem materials	116.7	118.9	120.9	122.3	125.1	130.5	133.0	131.6	132.4	135.3
Textile materials	103.6	105.9	106.2	106.1	111.4	116.8	113.1	111.8	109.0	109.0
Pulp and paper materials	131.0	134.1	137.0	136.4	137.7	144.6	145.1	145.7	145.9	148.9
Chemical materials	116.1	118.1	120.3	122.9	125.3	130.2	135.5	133.5	135.7	139.6
Energy materials	99.7	98.1	97.8	98.3	98.7	100.0	102.1	100.9	100.6	102.4
Manufacturing	128.5	129.2	130.4	131.6	133.2	135.7	138.1	139.6	141.5	144.0
Durable	127.7	128.2	129.1	130.5	131.4	133.7	136.9	138.4	141.0	143.3
Nondurable	129.6	130.7	132.1	133.1	135.7	138.6	139.7	141.4	142.3	145.0
Mining and Utilities	102.8	100.8	101.5	102.3	102.5	104.9	107.3	107.1	106.7	108.1
Mining	100.3	96.8	96.9	98.8	99.0	100.7	104.3	102.5	103.4	103.9
Utilities	107.0	107.3	109.1	108.1	108.3	111.8	112.3	114.7	111.9	115.0

Table 6
INDUSTRIAL PRODUCTION: GROSS VALUE OF PRODUCTS
 Billions of 1982 dollars at annual rates, seasonally adjusted

SERIES	Billions of 1982 Dollars at Annual Rates													
	1982 Dollars	1987 Ann. Avg.	1987 Q2	Q3	Q4	Quarters 1988			Months					
						Q1	Q2	Q3	1988 JUN	JUL	AUG	SEP	OCT	NOV
Products, total	1376.8	1736.4	1717.8	1736.7	1775.1	1798.5	1815.4	1826.7	1813.9	1822.3	1828.6	1829.1	1855.1	1857.6
Final products	1084.5	1333.9	1320.4	1330.6	1360.1	1380.8	1395.1	1402.4	1394.3	1398.9	1404.2	1404.2	1425.3	1426.3
Consumer goods	703.7	866.1	858.3	862.2	879.2	893.5	897.2	897.6	893.6	895.6	900.4	896.9	915.8	916.1
Durable consumer goods	133.3	208.2	203.8	206.4	212.5	209.2	218.1	218.9	219.4	217.6	218.9	220.4	225.4	225.9
Automotive products	65.9	113.0	110.0	110.5	115.0	113.4	120.8	120.2	122.3	118.8	120.0	121.6	124.3	125.6
Home goods	67.4	95.2	93.8	95.9	97.6	95.7	97.4	98.8	97.1	98.7	98.9	98.7	101.1	100.4
Nondurable consumer goods	570.4	657.9	654.6	655.7	666.7	684.4	679.0	678.7	674.2	678.0	681.5	676.5	690.4	690.1
Equipment, total	380.8	467.8	462.1	468.5	480.9	487.3	497.9	504.8	500.7	503.2	503.8	507.3	509.5	510.2
Business & defense equipment	345.4	449.2	445.3	448.2	460.3	468.1	478.3	485.2	480.9	483.7	484.2	487.8	490.4	492.0
Business equipment	278.0	352.1	348.3	351.4	362.7	370.2	382.7	390.7	386.0	388.9	389.9	393.2	395.4	396.7
Defense and space equipment	67.4	97.1	97.0	96.8	97.6	97.9	95.5	94.6	94.9	94.7	94.3	94.6	95.0	95.4
Intermediate products	292.2	402.5	397.4	406.1	415.0	417.7	420.3	424.2	419.6	423.4	424.3	424.9	429.8	431.3
Construction supplies	108.3	159.7	157.2	161.2	162.7	166.2	167.1	168.0	166.8	168.6	167.4	168.0	169.4	170.8
Business supplies	183.9	242.8	240.2	244.9	252.4	251.5	253.2	256.2	252.9	254.8	257.0	256.9	260.4	
Commercial energy products	63.4	78.0	77.2	78.6	82.7	79.1	80.9	79.7	80.4	79.8	80.3	78.9		

Table 7
INDUSTRIAL PRODUCTION: DIFFUSION INDEXES
 Percent of component series higher than in earlier months

	ONE MONTH EARLIER	THREE MONTHS EARLIER	SIX MONTHS EARLIER
1977-87			
AVERAGE	53.5	56.3	58.4
HIGH	70.6	79.4	88.3
LOW	26.4	23.2	23.0
1986			
OCTOBER	58.7	54.8	48.0
NOVEMBER	58.1	55.0	56.5
DECEMBER	58.1	65.3	64.3
1987			
JANUARY	43.8	56.9	55.8
FEBRUARY	60.9	58.5	61.7
MARCH	49.4	56.2	69.2
APRIL	49.6	59.5	63.7
MAY	59.5	58.1	63.9
JUNE	51.4	57.7	56.9
JULY	64.7	67.7	66.1
AUGUST	52.8	64.9	65.9
SEPTEMBER	45.6	61.5	64.3
OCTOBER	59.5	56.2	73.4
NOVEMBER	58.9	63.1	71.4
DECEMBER	54.2	69.4	72.4
1988			
JANUARY	57.3	68.3	67.1
FEBRUARY	48.8	54.6	62.7
MARCH	54.4	60.3	71.8
APRIL	54.6	56.9	63.9
MAY	55.6	60.1	60.5
JUNE	56.0	59.9	57.9
JULY	65.9	66.7	69.6
AUGUST	55.6	67.5	69.2
SEPTEMBER	51.0	62.5	65.5
OCTOBER	59.3	60.3	71.6

NOTE: THE DIFFUSION INDEXES SHOW THE PERCENT OF THE INDUSTRIAL PRODUCTION INDEX'S 252 SEASONALLY ADJUSTED COMPONENT SERIES THAT IN THE MONTH INDICATED WERE HIGHER THAN THEY WERE ONE MONTH EARLIER, THREE MONTHS EARLIER, AND SIX MONTHS EARLIER. IN CALCULATING THE DIFFUSION INDEXES HALF OF THE UNCHANGED COMPONENTS ARE COUNTED AS BEING HIGHER AND NO ALLOWANCE IS MADE FOR THE RELATIVE IMPORTANCE OF THE INDIVIDUAL COMPONENTS IN TOTAL INDUSTRIAL PRODUCTION. DIFFUSION INDEXES BASED ON CHANGES OVER A SIX-MONTH PERIOD GENERALLY SHOW MORE PRONOUNCED CYCLICAL PATTERNS THAN DIFFUSION INDEXES BASED ON CHANGES OVER SHORTER PERIODS.

Table 8
AUTO ASSEMBLIES AT ANNUAL RATES
 Seasonally adjusted

	Billions of Units													
	1987 ARR. AVG.	1987 NOV	DEC	1988 JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
Autos, total	7.1	7.1	6.5	6.0	6.1	6.6	7.0	7.5	7.5	7.1	7.1	7.4	7.7	7.6

Table 9A

ELECTRIC POWER USE BY INDUSTRIES

Seasonally adjusted indexes, 1977 = 100

SECTORS	SIC code	Indexes									Percentage change from				Indexes	
		1977 (bill. kWh)	1987 Avg.	1987 Q3	1987 Q4	1988 Q1	1988 Q2	1988 Q3	1988 Q4	PREVIOUS QUARTER			1987 Q3	1988 SEP	1988 OCT	
										1987 Q4	1988 Q1	1988 Q2				
TOTAL	10-14,20-39	785.8	103.3	105.2	106.5	106.5	105.9	109.2	1.2	.0	-0.6	3.1	3.8	109.1	109.7	
MAJOR INDUSTRIAL DIVISIONS																
MINING	10-14	59.4	112.3	115.4	121.5	116.4	114.2	118.9	5.3	-4.2	-1.8	4.1	3.1	118.4	119.5	
MANUFACTURING	20-39	726.4	102.7	104.5	105.4	105.9	105.3	108.5	.9	.4	-0.6	3.1	3.9	108.5	109.0	
DURABLE	24,25,32-39	344.3	100.2	101.1	105.2	106.1	106.4	109.1	4.0	.9	.3	2.6	8.0	109.2	110.8	
NONDURABLE	20-23,26-31	382.1	105.0	107.4	105.5	105.4	104.8	107.9	-1.8	-0.1	-0.6	3.0	.4	108.1	107.3	
INDUSTRY GROUPS AND SERIES																
METAL MINING	10	15.1	102.2	112.8	126.5	110.7	106.2	124.2	12.2	-12.5	-4.0	16.9	10.1	126.8	128.2	
Iron ore	101	6.1	98.1	110.6	138.9	108.6	97.4	122.8	25.6	-21.8	-10.3	26.0	11.0	126.5	131.6	
Copper ore	102	5.9	124.6	136.3	135.4	133.0	137.6	142.4	-0.7	-1.8	3.5	3.5	4.4	143.8	146.5	
COAL	11,12	10.3	134.5	134.7	144.1	134.7	130.2	132.3	7.0	-6.5	-3.4	1.6	-1.8	134.2	140.6	
OIL AND GAS EXTRACTION	13	23.0	116.1	116.8	118.3	118.8	117.5	116.3	1.2	.4	-1.1	-1.1	-0.5	114.7	114.1	
Crude oil and natural gas	131	18.2	118.7	119.8	120.6	119.8	119.6	118.4	.7	-0.6	-0.2	-1.0	-1.2	116.7	116.1	
Natural gas liquids	132	3.4	95.8	92.7	101.9	108.1	100.4	95.5	9.9	6.1	-7.2	-4.9	3.0	94.9	97.2	
STONE AND EARTH MINERALS	14	11.0	95.7	99.5	98.0	99.2	101.9	105.9	-1.5	1.2	2.7	3.9	6.5	100.0	100.0	
Crushed stone	142	2.4	139.7	141.3	145.8	140.3	150.6	150.0	3.2	-3.8	7.3	-0.4	6.2	149.2	145.6	
Sand and gravel	144	2.0	100.8	104.2	101.6	100.3	105.7	103.8	-2.5	-1.3	5.4	-1.8	-0.4	103.8	103.0	
Chemical & fertilizer mat.	147	5.0	73.2	77.6	74.0	77.9	78.1	83.4	-4.6	5.2	.3	6.8	7.5	73.5	75.7	
FOODS	20	42.4	125.1	127.0	126.6	126.4	129.4	131.4	-0.1	1.3	.7	1.6	3.5	130.5	132.0	
Meat products	201	6.9	119.6	121.6	123.1	123.4	126.3	126.3	1.2	.3	2.3	.0	3.8	126.0	126.9	
Dairy products	202	5.3	126.0	127.4	128.4	133.7	133.9	134.7	.8	4.1	.2	.6	5.7	133.1	131.6	
Canned and frozen foods	203	5.7	143.6	147.6	144.3	143.8	145.9	153.5	-2.3	-0.3	1.5	5.2	4.0	152.5	145.6	
Grain mill products	204	7.4	109.6	109.2	112.9	115.3	115.9	114.4	3.3	2.1	.6	-1.4	4.7	114.7	115.5	
Bakery products	205	2.5	141.4	140.9	140.7	143.2	140.3	143.7	-0.1	1.8	-2.0	2.4	2.0	144.5	147.3	
Sugar and confectionery	206	3.3	185.5	190.8	192.0	194.3	187.7	190.1	.6	1.2	-3.4	1.3	-0.4	191.6	197.5	
Fats and oils	207	3.4	94.2	89.8	95.5	98.7	97.2	96.0	6.4	3.4	-1.5	-1.3	6.9	93.7	98.5	
Beverages	208	4.8	128.0	131.6	128.9	129.2	128.9	132.5	-2.1	.2	-0.2	2.9	.7	131.8	136.3	
Misc. food preparations	209	3.1	118.3	121.2	117.7	117.1	119.9	123.9	-2.9	-0.5	2.4	3.3	2.2	124.8	117.1	
TOBACCO PRODUCTS	21	1.3	109.0	113.1	110.0	110.7	100.8	111.3	-2.8	.6	-8.9	10.4	-1.6	107.0	103.4	
TEXTILE MILL PRODUCTS	22	28.3	104.6	107.0	103.0	109.6	105.3	107.1	-3.7	6.4	-3.9	1.6	.1	105.8	101.9	
Fabrics	221-4	12.1	95.8	97.5	93.5	100.6	95.5	94.8	-4.2	7.6	-5.1	-0.7	-2.8	93.7	88.7	
Knit goods	225	3.7	87.4	88.0	88.5	92.0	90.9	91.8	.6	3.9	-1.2	.9	4.3	92.3	93.4	
Fabric finishing	226	2.2	152.2	134.3	132.7	132.8	135.8	134.7	-1.2	.1	2.2	-0.8	.3	129.3	139.4	
Yarn and thread	228	6.7	121.4	125.0	119.1	126.5	120.1	127.0	-4.8	6.2	-5.0	5.7	1.5	124.4	118.1	
Miscellaneous textiles	229	2.1	106.7	108.4	105.7	109.5	108.7	109.4	-2.5	3.6	-0.8	.7	.9	107.3	106.8	
APPAREL PRODUCTS	23	6.6	133.7	135.3	131.7	134.2	134.1	135.7	-2.7	1.9	-0.1	1.2	.3	134.9	133.9	
Men's outerwear	231,21	2.1	143.1	145.7	145.2	148.8	150.8	149.3	-0.3	2.5	1.3	-1.0	2.5	153.7	150.2	
Women's outerwear	233	1.9	114.6	115.6	111.1	113.3	105.9	106.6	-3.9	2.0	-6.5	.7	-7.7	101.2	104.5	
LUMBER AND PRODUCTS	24	16.4	137.7	140.8	139.2	142.5	143.7	143.7	-1.1	2.4	.8	.0	2.0	143.1	141.0	
Lumber	242	6.9	113.0	115.6	114.2	117.0	114.6	113.5	-1.2	2.4	-2.0	-1.0	-1.8	111.9	112.3	
Millwork and plywood	243	4.4	149.9	152.4	152.1	153.2	151.4	153.8	-0.2	.7	-1.1	1.6	.9	152.7	149.8	
FURNITURE AND FIXTURES	25	4.2	140.9	143.4	143.3	143.8	144.0	148.2	-0.1	.3	.2	2.9	3.3	147.2	144.8	
Home furniture	251	2.8	126.5	129.0	127.5	127.8	128.0	129.3	-1.2	.3	.1	1.0	.2	129.2	128.4	
PAPER AND PRODUCTS	26	71.9	124.3	124.7	125.6	129.3	127.9	129.4	.7	2.9	-1.1	1.1	3.7	128.8	128.9	
Wood pulp	261	5.9	128.7	124.8	117.4	134.1	133.4	140.8	-5.9	14.2	-0.6	5.6	12.8	144.5	143.7	
Paper	262	34.4	133.9	135.3	136.6	139.9	135.8	137.8	1.0	2.4	-3.0	1.5	1.8	137.4	135.6	
Paperboard	263	22.1	102.2	102.9	105.3	101.0	104.3	110.8	2.3	-4.1	3.3	6.2	7.7	113.0	108.7	
Converted paper	264	5.0	114.2	111.9	117.0	117.6	121.2	120.0	4.6	.5	3.0	-0.9	7.2	118.8	119.0	
Paperboard containers	265	3.4	126.6	128.7	126.2	132.4	132.1	135.7	-1.9	4.9	-0.2	2.7	5.5	140.1	131.6	
Building paper and board	266	1.1	162.3	166.4	166.5	169.2	167.0	174.2	.1	1.6	-1.3	4.4	4.7	170.1	174.3	
PRINTING AND PUBLISHING	27	10.6	161.5	163.7	164.0	168.6	170.0	172.5	.2	2.8	.8	1.5	5.4	172.3	174.4	
Newspapers	271	2.6	134.4	136.5	136.1	141.3	139.8	141.4	-0.3	3.8	-1.1	1.1	3.6	136.9	142.7	
Commercial Printing	275	4.8	189.1	190.7	196.5	200.8	202.8	203.6	3.0	2.2	1.0	.4	6.8	202.9	207.6	
CHEMICALS AND PRODUCTS	28	162.1	86.6	89.5	86.7	83.8	84.0	89.2	-3.1	-3.3	.3	6.1	-0.4	89.6	88.5	
Basic chemicals	281	85.6	71.8	75.6	71.2	65.4	66.5	71.7	-5.8	-8.2	1.7	7.8	-5.1	72.9	71.7	
Alkalies and chlorine	2812	13.3	100.4	103.5	104.9	104.9	95.7	103.0	1.3	.0	-8.7	7.6	-0.5	107.5	104.3	
Inorganic chemicals, nec	2819	58.1	49.7	54.2	47.9	39.5	43.1	46.7	-11.6	-17.6	9.2	8.4	-13.8	47.6	47.2	
Acid and fertilizer mat.		13.0	70.6	71.1	70.7	68.9	66.9	70.0	-0.6	-2.5	-2.8	4.6	-1.6	71.2	72.0	
Nuclear mats., nondefense		44.6	41.0	46.8	38.0	27.7	33.3	36.6	-18.7	-27.2	20.1	10.2	-21.7	37.6	37.1	
Synthetic materials	282	19.3	124.0	123.9	125.7	131.2	130.8	131.6	1.4	4.4	-0.2	.6	6.2	131.7	132.5	
Plastics materials	2821	9.2	153.5	149.8	150.0	163.1	163.3	164.5	.5	8.3	.2	.7	9.8	163.5	164.9	
Drugs	283	4.1	157.1	161.2	154.8	163.3	166.2	175.2	-4.0	5.4	1.8	5.4	8.7	170.7	165.5	
Soaps and toiletries	284	2.1	128.7	133.2	129.0	130.6	138.8	147.3	-3.2	1.2	6.3	6.1	10.6	141.4	145.3	
Industrial organic chem.	286	35.8	97.9	97.8	97.2	97.4	95.5	97.5	-0.7	.2	-1.9	2.0	-0.3	97.5	98.9	
Farm chemicals	287	10.5	85.5	80.7	88.8	92.7	86.6	87.9	10.1	4.4	-6.6	1.5	9.0	88.3	90.2	

Table 9B
ELECTRIC POWER USE BY INDUSTRIES
 Not seasonally adjusted, 1977 = 100

Series	SIC code	1977 (bill. kWh)	Indexes							Percentage change from				Indexes	
			1987 Avg.	1987 Q1	1987 Q2	1987 Q3	1987 Q4	1988 Q1	1988 Q2	1988 Q3	Previous quarter			1987 SEP	1988 OCT
											1987 Q3	1988 Q1	1988 Q2		
TOTAL	10-14, 20-39	785.8	103.3	106.9	105.0	104.6	107.3	111.0	-1.8	-0.4	2.6	3.4	3.8	112.0	110.4
MAJOR INDUSTRY DIVISIONS															
MINING	10-14	59.4	112.3	111.8	118.0	120.5	116.6	115.2	5.5	2.2	-3.1	-1.4	3.0	116.2	116.8
MANUFACTURING	20-39	726.4	102.7	106.6	104.2	103.5	106.7	110.7	-2.3	-0.6	3.0	3.8	3.9	111.7	110.0
DURABLE	24, 25, 32-39	344.3	100.2	102.4	103.6	105.1	107.6	110.6	1.2	1.4	2.4	2.8	8.0	111.5	111.2
NONDURABLE	20-23, 26-31	382.1	105.0	110.5	104.7	102.2	105.9	110.9	-5.2	-2.4	3.7	4.7	.4	111.9	108.9
INDUSTRY GROUPS AND SERIES															
METAL MINING	10	15.1	102.2	107.8	113.1	114.9	117.4	118.7	4.9	1.6	2.1	1.1	10.1	119.2	120.8
Iron ore	101	6.1	98.1	105.6	113.1	113.9	113.3	117.3	7.1	.7	-0.5	3.5	11.1	117.8	119.7
Copper ore	102	5.9	124.6	132.2	132.1	134.5	142.7	138.1	-0.1	1.8	0.1	-3.3	4.4	137.7	137.8
COAL	11, 12	10.3	134.5	118.8	140.5	154.4	129.1	116.6	18.3	9.9	-16.4	-9.7	-1.8	124.6	130.6
OIL AND GAS EXTRACTION	13	23.0	116.1	117.5	118.6	118.9	116.4	116.9	.9	.3	-2.1	.4	-0.5	115.8	113.1
Crude oil and natural gas	131	18.2	118.7	119.9	121.3	120.9	117.7	118.5	1.1	-0.3	-2.7	.7	-1.2	117.3	114.7
Natural gas liquids	132	3.4	95.8	97.5	98.8	102.7	103.3	100.4	1.3	4.0	.5	-2.8	3.0	100.3	97.9
STONE AND EARTH MINERALS	14	11.0	95.7	98.5	99.9	96.1	103.9	104.8	1.4	-3.8	8.1	-.9	6.4	103.5	104.0
Crushed stone	142	2.4	139.7	147.4	149.8	127.3	154.0	156.4	1.6	-15.0	20.9	1.6	6.2	156.6	156.0
Sand and gravel	144	2.0	100.8	111.0	108.6	86.2	106.4	110.6	-2.1	-20.7	23.5	4.0	-0.3	110.4	112.9
Chemical & fertilizer mat.	147	5.0	73.2	73.7	74.8	79.5	79.1	79.0	1.5	6.4	-0.6	-0.1	7.3	76.2	76.2
FOODS	20	42.4	125.1	137.0	127.9	120.6	125.9	141.7	-6.6	-5.7	4.4	12.6	3.5	143.7	138.2
Meat products	201	6.9	119.6	133.5	123.1	114.5	123.0	138.6	-7.8	-7.0	7.4	12.7	3.8	138.6	132.3
Dairy products	202	5.3	128.0	140.7	124.3	123.1	134.8	148.8	-11.7	-1.0	9.5	10.4	5.7	145.6	132.6
Canned and frozen foods	203	5.7	143.6	163.2	146.6	133.0	139.0	169.8	-10.2	-9.3	4.6	22.2	4.1	181.5	166.1
Grain mill products	204	7.4	109.6	112.1	115.5	113.6	111.8	117.4	3.0	-1.6	-1.6	5.0	4.7	119.0	120.0
Bakery products	205	2.5	141.4	155.9	138.6	131.8	138.6	159.0	-11.1	-4.9	5.2	14.7	2.0	160.8	151.7
Sugar and confectionery	206	3.3	185.5	187.5	216.7	190.7	169.3	186.9	15.6	-12.0	-11.2	10.4	-0.3	194.6	210.0
Fats and oils	207	3.4	94.2	88.5	100.1	99.7	92.8	94.6	13.1	-0.4	-6.9	1.9	6.9	95.4	102.8
Beverages	208	4.6	128.0	146.8	125.9	117.8	128.2	147.6	-14.2	-6.5	8.9	15.3	.7	147.0	139.0
Misc. food preparations	209	3.1	118.3	130.3	118.6	109.5	117.6	133.2	-8.9	-7.7	7.4	13.3	2.2	134.5	124.0
TOBACCO PRODUCTS	21	1.3	109.0	119.4	114.2	103.2	97.7	117.7	-4.3	-9.6	-5.4	20.5	-1.4	120.0	117.6
TEXTILE MILL PRODUCTS	22	28.3	104.6	113.6	104.1	98.6	106.2	113.7	-8.3	-5.3	9.7	5.1	.1	116.6	110.2
Fabrics	221-4	12.1	95.4	103.8	94.7	90.2	98.0	101.0	-8.8	-4.7	8.7	3.1	-2.7	103.0	96.9
Knit goods	225	3.7	87.4	97.8	86.1	81.0	93.5	101.8	-12.0	-5.2	14.6	8.9	4.0	105.4	97.8
Fabric finishing	226	2.2	132.2	137.7	135.0	126.2	136.6	138.1	-1.9	-6.5	8.2	1.1	.3	141.1	145.7
Yarn and thread	228	6.7	121.4	132.2	120.9	112.5	124.2	134.4	-8.6	-6.9	10.4	8.2	1.6	137.8	128.7
Miscellaneous textiles	229	2.1	106.7	113.4	104.5	103.1	110.9	114.7	-7.9	-1.3	7.5	3.5	1.2	118.2	112.7
APPAREL PRODUCTS	23	6.6	133.7	155.6	127.2	122.1	130.5	155.9	-18.2	-4.0	6.9	19.5	.2	159.4	141.6
Men's outerwear	231, 2	2.1	143.1	170.6	139.6	130.9	148.9	174.9	-18.2	-6.2	13.7	17.4	2.5	184.9	158.4
Women's outerwear	233	1.9	114.6	136.1	106.6	101.0	102.7	125.4	-21.7	-5.2	1.6	22.2	-7.8	122.4	109.8
LUMBER AND PRODUCTS	24	16.4	137.7	137.2	139.3	145.7	144.0	140.0	1.5	4.6	-1.2	-2.8	2.0	142.2	140.6
Lumber	242	6.9	113.0	111.7	114.7	119.6	115.5	109.6	2.7	4.2	-3.4	-5.1	-1.8	110.9	111.5
Millwork and plywood	243	4.4	149.9	146.7	150.7	156.2	153.2	150.0	1.3	3.7	-1.9	-2.1	.9	153.6	147.7
FURNITURE AND FIXTURES	25	4.2	140.3	144.5	143.8	144.1	141.9	149.4	-0.4	.2	-1.5	5.3	3.4	154.6	149.3
Home furniture	251	2.8	126.5	127.8	128.5	129.1	126.7	128.3	.5	.4	-1.8	1.2	.3	134.7	131.4
PAPER AND PRODUCTS	26	71.9	124.3	125.9	125.2	127.7	128.6	130.6	-0.6	2.0	.7	1.5	3.7	130.7	131.1
Wood pulp	261	5.9	128.7	124.7	119.6	130.4	134.3	140.6	-4.1	9.0	3.0	4.7	12.8	145.2	142.4
Paper	262	34.4	133.9	135.2	135.5	139.4	137.4	137.6	.2	2.9	-1.4	.1	1.8	137.2	138.5
Paperboard	263	22.1	102.2	102.3	103.9	101.7	105.6	110.2	1.6	-2.1	3.8	4.3	7.7	112.0	107.1
Converted paper	264	5.0	114.7	115.5	116.4	113.7	122.0	123.9	.8	-2.3	7.3	1.6	7.3	124.6	121.6
Paperboard containers	265	3.4	126.6	132.5	125.7	129.2	131.5	140.0	-5.2	2.8	1.8	6.4	5.6	140.7	136.4
Building paper and board	266	1.1	162.3	166.1	165.5	168.5	168.3	174.0	-0.4	1.8	-0.1	3.4	4.7	172.1	175.2
PRINTING AND PUBLISHING	27	10.6	161.5	184.5	161.5	154.3	165.3	194.5	-12.5	-4.5	7.1	17.6	5.4	193.9	181.9
Newspapers	271	2.6	134.4	152.6	133.5	128.8	138.2	158.1	-12.5	-3.5	7.3	14.4	3.6	154.5	145.8
Commercial Printing	275	4.8	189.1	215.4	194.8	184.1	195.0	230.0	-9.6	-5.5	5.9	18.0	6.8	229.5	218.7
CHEMICALS AND PRODUCTS	28	162.1	86.6	90.0	84.8	82.5	86.6	89.7	-5.8	-2.7	5.0	3.5	-0.4	89.9	88.1
Basic chemicals	281	85.6	71.8	75.4	69.3	64.0	69.0	71.5	-8.0	-6.8	6.8	3.6	-5.1	71.5	70.5
Alkalies and chlorine	2812	13.3	100.4	103.6	101.6	102.4	100.7	103.1	-1.9	.8	-1.7	2.4	-0.5	107.0	101.2
Inorganic chemicals, nec	2819	58.1	49.7	53.4	46.0	39.5	45.2	46.1	-14.0	-14.0	14.3	2.1	-13.7	45.3	46.0
Acid and fertilizer mat.		13.0	70.6	71.1	69.9	68.3	68.3	70.0	-1.7	-2.3	.0	2.5	-1.5	69.0	71.6
Nuclear mats., nondefense		44.6	41.0	46.1	36.0	27.5	35.5	36.1	-21.9	-23.4	29.0	1.7	-21.5	35.4	35.4
Synthetic materials	282	19.3	124.0	128.6	123.5	125.8	133.5	136.6	-4.0	1.9	6.1	2.3	6.2	138.2	133.3
Plastics materials	2821	9.2	153.5	154.2	147.4	158.6	166.3	169.3	-4.4	7.6	4.8	1.8	9.8	170.5	165.9
Drugs	283	4.1	157.1	178.4	151.4	149.5	165.9	193.9	-15.2	-1.2	11.0	16.9	8.6	190.4	172.3
Soaps and toiletries	284	2.1	128.7	140.2	128.3	127.5	135.6	155.0	-8.5	-0.6	6.3	14.4	10.6	153.1	149.2
Industrial organic chem.	286	35.8	97.9	95.5	96.0	98.9	97.5	95.2	.5	3.0	-1.4	-2.3	-0.3	95.3	98.0
Para chemicals	287	10.5	85.5	81.4	88.6	90.0	88.7	88.7	8.9	1.6	-1.4	.0	9.0	91.2	91.1

Table 9A—continued
ELECTRIC POWER USE BY INDUSTRIES
 Seasonally adjusted indexes, 1977 = 100

Series	SIC code	Indexes							Percentage change from				Indexes		
		1977	1987		1988			PREVIOUS QUARTER			year ago	1987	1988		
		(bil. kWh)	AVG. 1	Q2	Q1	Q2	Q3	Q3	Q1	Q2	Q3	Q3	SEP	OCT	
PETROLEUM PRODUCTS	291	34.7	121.3	123.6	122.8	123.1	119.3	116.5	-0.7	.3	-3.1	-2.4	-5.8	118.3	117.4
RUBBER & PLASTICS PRODUCTS	301	23.1	143.0	146.1	147.3	147.9	146.7	150.6	.9	.4	.6	1.2	3.1	149.1	149.3
Tires	3011	5.4	75.5	77.1	76.3	77.4	79.7	81.3	-1.0	1.5	2.9	2.1	5.5	80.4	78.6
Rubber products, nec	3061	2.2	103.0	104.9	106.3	105.9	106.6	111.0	1.4	-0.4	.7	4.1	5.8	111.8	108.5
Plastics products, nec	3071	14.2	192.1	195.8	198.3	198.2	196.9	197.8	1.3	.0	-0.7	-5.1	1.0	195.8	197.4
LEATHER AND PRODUCTS	311	1.4	98.5	102.1	99.7	96.4	97.7	101.7	-2.3	-3.3	1.3	4.2	-0.3	102.7	99.8
Shoes	314	.7	88.4	92.5	90.6	88.0	90.8	92.2	-2.0	-3.0	3.2	1.5	-0.3	93.0	89.9
CLAY, GLASS, AND STONE	321	31.4	106.5	105.8	107.2	109.5	106.4	108.1	1.3	2.2	-1.0	-0.3	2.2	107.8	108.2
Flat glass	3211	1.3	121.6	124.7	130.2	137.7	142.7	146.7	4.4	5.8	3.7	2.8	17.6	145.4	145.5
Pressed and blown glass	3221	6.8	104.0	103.6	101.4	102.2	102.7	104.3	-2.1	.8	.5	1.5	.6	104.6	102.3
Cement	3241	10.2	97.7	96.2	98.3	97.2	96.9	93.1	2.2	-1.1	-0.3	-4.0	-3.2	93.0	95.7
Structural clay products	3251	1.5	114.6	115.3	116.6	120.9	118.2	118.1	1.1	3.7	-2.3	-0.1	2.4	118.7	115.1
Concrete products	3271	3.6	108.6	107.7	111.6	113.6	109.7	111.9	3.6	1.8	-3.4	2.0	3.9	112.4	112.6
PRIMARY METALS	331	171.3	79.5	80.8	86.9	87.4	87.5	91.5	7.6	.5	.1	4.6	13.3	92.9	94.4
Basic steel and mill prod.	3311	65.7	70.6	72.4	78.2	79.0	77.1	83.7	8.0	1.0	-2.4	8.6	15.6	85.8	86.9
Iron and steel foundries	3321	12.0	73.5	72.8	77.5	78.6	77.8	80.1	6.5	1.4	-1.0	2.9	10.1	79.8	81.0
Primary nonferrous metals	3331	78.1	98.5	100.4	103.6	105.9	102.1	107.6	3.2	2.2	-3.5	5.3	7.1	104.3	117.2
Aluminum	3334	70.3	80.6	81.1	88.2	88.3	89.4	90.0	8.7	.1	1.3	.6	10.9	90.5	91.0
Nonferrous foundries	3361	2.1	124.8	125.9	128.8	126.7	129.4	133.6	2.3	-1.7	2.2	3.2	6.2	133.8	133.8
FABRICATED METAL PRODUCTS	341	26.4	122.5	123.9	127.4	130.3	131.7	133.7	2.8	2.3	1.1	1.5	7.9	132.4	131.9
Metal cans	3411	2.2	124.5	126.9	126.8	132.8	132.2	136.5	-0.1	4.7	-0.4	3.3	7.6	135.6	138.8
Hardware	3421	2.3	105.9	106.1	106.3	107.3	110.4	112.2	.1	1.0	2.9	1.7	5.8	111.6	112.2
Structural metal products	3441	.8	117.9	120.0	122.7	125.3	129.0	130.6	2.3	2.1	3.0	1.2	8.8	127.5	129.5
Fasteners	3451	1.6	113.1	116.4	120.6	120.2	120.0	128.2	3.6	-0.3	-0.1	6.8	10.1	123.8	126.5
Metal stampings	3461	6.2	108.9	105.3	113.5	116.9	121.7	123.6	7.8	3.0	4.1	1.5	17.4	122.8	123.2
NONELECTRICAL MACHINERY	351	28.6	118.8	121.6	122.1	125.3	127.9	131.2	.4	2.6	2.1	2.6	7.9	129.7	127.3
Engines and turbines	3511	2.4	64.7	64.9	67.5	70.7	72.1	75.9	4.1	4.7	2.0	5.3	17.0	78.9	77.1
Farm equipment	3521	2.1	55.2	58.2	59.1	56.2	62.7	63.3	1.6	-5.0	11.6	1.0	8.8	63.3	65.3
Construction equipment	3531	5.1	76.1	80.0	80.4	80.8	82.7	83.9	.5	.4	2.4	1.4	4.8	84.3	83.2
Metalworking machinery	3541	3.8	119.1	123.4	120.7	122.4	124.7	132.8	-2.2	1.4	1.8	6.6	7.7	132.3	127.5
Special industry machinery	3551	2.0	106.0	110.0	106.9	112.6	105.8	110.3	-2.8	5.3	-6.1	4.3	.3	106.8	108.6
General industrial mach.	3561	4.6	112.3	115.5	113.6	116.2	117.4	121.0	-1.6	2.3	1.1	3.0	4.8	118.5	119.9
Office and computing mach.	3571	2.8	212.0	211.2	216.6	222.6	233.3	229.4	2.6	2.7	4.8	-1.6	8.6	226.1	216.9
Service industry machinery	3581	2.8	112.9	115.4	120.0	121.1	122.4	130.3	4.0	.9	1.1	6.5	12.9	129.7	128.2
ELECTRICAL MACHINERY	361	25.0	131.8	133.4	133.5	136.2	136.9	142.4	.1	2.0	.5	4.0	6.7	141.9	142.0
Elect. distribution equip.	3611	1.5	100.7	99.4	101.0	103.7	101.2	106.6	1.6	2.7	-2.4	5.3	7.2	104.9	101.9
Elect. indust. apparatus	3621	4.3	86.3	87.3	88.5	88.9	90.0	93.3	1.4	.5	1.2	3.7	6.9	91.8	93.3
Household appliances	3631	2.7	94.6	97.2	92.7	92.9	94.3	94.8	-4.6	.3	1.5	.5	-2.4	91.9	92.6
Lighting and wiring prod.	3641	2.3	106.3	107.7	107.1	110.2	110.3	111.0	-0.6	2.9	.1	.6	3.0	110.6	106.3
Radio and TV sets	3651	.9	110.5	109.0	104.1	106.1	107.0	103.7	-4.5	2.0	.8	-3.2	-4.9	102.0	108.0
Communication equipment	3661	4.6	170.7	168.8	175.8	175.2	174.4	183.3	4.2	-0.3	-0.5	5.1	8.6	184.6	184.5
Electronic components	3671	6.0	184.9	187.1	189.2	195.4	194.2	203.4	1.1	3.3	-0.6	4.7	8.7	202.7	202.0
TRANSPORTATION EQUIPMENT	371	31.4	116.0	114.6	117.7	117.3	117.3	116.7	2.6	-0.3	.0	-0.5	1.8	117.9	120.5
Motor vehicles and parts	3711	19.3	100.0	97.3	101.7	98.7	100.0	99.9	4.5	-2.9	1.3	-0.1	2.7	103.4	104.0
Aircraft and parts	3721	6.5	159.5	161.2	160.6	164.6	162.3	163.0	-0.4	2.5	-1.4	.4	1.1	160.7	166.6
Ships and boats	3731	2.1	125.4	132.9	123.2	130.9	133.9	129.2	-7.3	6.3	2.3	-3.5	-2.8	127.0	135.8
INSTRUMENTS	381	5.5	158.3	161.2	163.9	161.4	161.1	168.5	1.7	-1.6	-0.2	4.6	4.5	165.8	171.5
Copiers and related equip.	3861	1.4	138.4	143.2	145.0	136.5	135.7	147.7	1.3	-5.9	-0.6	8.9	3.2	147.3	150.3
MISCELLANEOUS MANUFACTURES	391	4.1	103.5	100.5	103.1	106.3	103.0	105.8	2.6	3.1	-3.1	2.7	5.3	105.7	104.7
SUPPLEMENTARY GROUPINGS															
TOTAL, LESS NUCLEAR NONDEFENSE		740.7	108.5	109.9	112.1	113.0	112.3	115.1	1.9	.8	-0.6	2.5	4.7	114.9	115.6
UTILITY SALES TO INDUSTRY		715.7	104.3	106.3	107.5	107.7	107.1	110.3	1.1	.2	-0.6	3.0	3.8	110.3	110.8
INDUSTRIAL GENERATION		70.1	85.5	86.4	89.6	85.3	85.2	89.6	3.7	-4.8	-0.1	5.2	3.7	88.9	90.9

Note: The electric power use data by industry, shown in billions of kilowatt hours for 1977, are from the Census of Manufactures of that year and from other sources. They are provided for information and are not used as weights to compile the electric power use indexes. All index aggregations, with their detailed components, are calculated from the kilowatt hour data collected in the Federal Reserve survey of electric power use by industry. The electric power total includes only those major divisions of industries--mining and manufacturing--for which data are collected in this Federal Reserve survey. The total does not include gas or electric utility kilowatt hour use. The supplementary grouping, "Total, less nondefense, nuclear" is shown separately because the nondefense nuclear materials series (part of SIC 2819) accounts for a disproportionately large part of total electric power use. Since the value added proportion for this industry is a considerably smaller part of total IP than its share of total electric power use, excluding this component from total power use facilitates comparisons with total IP.

Table 9B—continued
ELECTRIC POWER USE BY INDUSTRIES
 Not seasonally adjusted, 1977 = 100

Series	SIC code	Indexes								Percentage change from				Indexes	
		1977	1987	1987	1988			previous quarter				year ago			
		(bil. kWh)	Avg.	Q2	Q4	Q1	Q2	Q3	1987 Q4	1988 Q1	Q2	Q3	1987 Q3	1988 SEP	OCT
PETROLEUM PRODUCTS	29	34.7	121.3	129.1	122.3	119.5	117.7	121.6	-5.2	-2.3	-1.5	3.3	-5.0	123.6	117.1
RUBBER & PLASTICS PRODUCTS	30	23.1	143.0	148.2	146.7	144.9	150.1	152.8	-1.0	-1.3	3.6	1.8	3.1	156.4	154.5
Tires	301	5.4	75.5	79.0	76.0	74.5	80.0	84.2	-4.7	-2.0	7.4	5.3	5.6	86.8	82.7
Rubber products, nec	306	2.2	103.0	104.9	105.7	105.2	107.9	110.9	.8	-0.4	2.5	2.8	5.8	114.6	110.8
Plastics products, nec	307	14.2	192.1	198.2	197.3	195.0	198.6	200.3	-0.4	-1.2	1.9	.8	1.1	204.0	203.8
LEATHER AND PRODUCTS	31	1.4	98.5	104.4	97.3	96.1	97.9	104.1	-6.8	-1.2	1.9	6.3	-0.2	109.1	100.5
Shoes	314	.7	88.4	96.4	87.3	88.3	89.9	96.1	-9.5	1.2	1.9	6.9	-0.3	100.1	90.0
CLAY, GLASS, AND STONE	32	31.4	106.5	109.8	109.2	102.1	109.5	112.2	-0.5	-6.5	7.2	2.4	2.2	113.4	113.1
Flat glass	321	1.3	121.6	126.8	130.5	136.3	141.4	149.2	2.9	4.5	3.7	5.5	17.6	148.8	148.7
Pressed and blown glass	322	6.8	104.0	106.3	101.9	99.0	102.6	107.0	-4.1	-2.9	3.8	4.2	.7	109.2	105.0
Cement	324	10.2	97.7	104.1	102.9	82.1	99.4	100.7	-1.1	-20.2	21.1	1.4	-3.2	99.9	104.8
Structural clay products	325	1.5	114.6	115.9	118.4	117.7	116.7	118.7	2.2	-0.6	.9	.0	2.4	121.6	116.7
Concrete products	327	3.6	108.0	110.2	111.9	108.4	111.8	114.4	1.6	-3.1	3.1	2.4	3.9	114.6	115.3
PRIMARY METALS	33	171.3	79.5	79.1	85.2	88.7	89.6	89.6	7.7	4.1	1.0	.0	13.3	89.8	92.6
Basic steel and mill prod.	331	65.7	70.6	69.6	74.9	81.6	80.7	80.4	7.7	8.8	-1.1	-0.4	15.6	80.9	83.3
Iron and steel foundries	332	12.0	73.5	71.5	76.2	76.2	80.8	78.7	6.6	2.6	3.4	-2.6	10.7	81.6	82.6
Primary nonferrous metals	333	78.1	98.5	99.7	106.5	103.9	101.7	106.8	6.8	-2.4	-2.1	5.0	7.2	104.9	117.3
Aluminum	3334	70.3	80.6	81.2	87.1	87.6	90.8	90.2	7.2	.6	3.6	-0.7	11.0	88.0	90.1
Nonferrous foundries	336	2.1	124.8	124.7	129.0	127.8	129.3	132.4	3.5	-0.9	1.1	2.4	6.7	138.2	137.2
FABRICATED METAL PRODUCTS	34	26.4	122.5	125.9	125.4	129.9	131.9	135.9	-0.4	3.6	1.5	2.9	7.9	137.1	134.0
Metal cans	341	2.2	124.5	132.9	122.7	128.4	134.5	143.0	-7.6	4.6	4.7	6.3	7.6	144.4	138.8
Hardware	342	2.3	105.9	107.8	105.5	106.7	110.0	114.1	-2.2	1.1	3.1	3.7	5.8	116.5	114.6
Structural metal products	344	.8	117.9	120.5	121.9	127.5	126.9	131.1	1.2	4.6	-0.5	3.3	8.8	131.8	130.9
Fasteners	345	1.6	113.1	117.2	117.6	121.7	120.4	129.1	.4	3.4	-1.0	7.2	10.1	128.2	127.5
Metal stampings	346	6.2	108.9	103.8	111.4	119.4	123.1	121.8	7.3	7.2	3.1	-1.0	17.4	124.8	124.6
NONELECTRICAL MACHINERY	35	28.6	118.8	126.8	120.8	122.3	127.0	136.0	-4.7	1.2	3.8	7.7	7.9	137.0	129.7
Engines and turbines	351	2.4	64.7	67.5	66.5	69.9	70.9	79.0	-1.5	5.0	1.5	11.4	17.0	80.6	76.5
Farm equipment	352	2.1	55.2	57.7	57.3	58.4	62.8	62.8	-0.6	2.0	7.5	-0.1	8.8	62.7	62.9
Construction equipment	353	5.1	76.1	82.9	79.7	79.5	81.7	86.9	-3.9	-0.3	2.8	6.4	4.8	89.1	83.6
Metalworking machinery	354	3.8	119.1	126.4	118.5	122.4	123.8	136.1	-6.2	3.3	1.1	9.9	7.7	137.6	130.0
Special industry machinery	355	2.0	106.0	112.7	105.7	111.3	105.4	113.0	-6.2	5.3	-5.3	7.2	.3	111.9	109.3
General industrial mach.	356	4.6	112.3	118.7	111.8	114.0	118.0	124.4	-5.8	2.0	3.5	5.4	4.8	125.1	120.9
Office and computing mach.	357	2.8	212.0	226.7	215.1	212.4	228.0	246.4	-5.1	-1.2	7.4	8.1	8.7	241.4	223.5
Service industry machinery	358	2.8	112.9	121.5	116.8	117.3	123.1	137.2	-3.8	.4	4.9	11.5	12.9	137.6	130.3
ELECTRICAL MACHINERY	36	25.0	131.8	139.8	131.6	131.8	136.6	149.2	-5.8	.2	3.6	9.2	6.7	151.2	145.5
Elect. distribution equip.	361	1.5	100.7	102.8	100.9	101.1	100.4	110.3	-1.9	.3	-0.7	9.8	7.2	112.3	104.8
Elect. indust. apparatus	362	4.3	86.3	88.8	86.5	88.1	91.2	95.0	-2.6	1.9	3.5	4.1	6.9	93.7	93.0
Household appliances	363	2.7	94.6	97.4	90.8	92.8	96.0	95.0	-6.7	2.2	3.5	-1.1	-2.4	96.8	97.1
Lighting and wiring prod.	364	2.3	106.3	107.9	107.4	109.4	110.6	111.2	-0.4	1.8	1.1	.5	3.1	116.6	110.6
Radio and TV sets	365	.9	110.5	117.2	101.4	102.2	105.3	111.6	-13.5	.8	3.0	6.0	-4.8	111.5	109.2
Communication equipment	366	4.6	170.7	183.8	172.9	163.9	172.8	199.7	-5.9	-5.2	5.4	15.6	8.6	202.2	189.6
Electronic components	367	6.0	184.9	198.5	187.1	185.9	193.9	215.8	-5.8	-0.6	4.3	11.3	8.7	216.9	208.2
TRANSPORTATION EQUIPMENT	37	31.4	116.0	119.2	115.2	114.0	118.3	121.4	-3.4	-1.0	3.7	2.6	1.9	124.3	122.1
Motor vehicles and parts	371	19.3	100.0	99.5	99.2	96.9	102.0	102.3	-0.3	-2.3	5.3	.2	2.8	107.2	105.4
Aircraft and parts	372	6.5	159.5	170.5	159.9	156.8	161.4	172.3	-6.2	-2.0	2.9	6.8	1.1	170.8	169.9
Ships and boats	373	2.1	125.4	131.5	121.1	135.7	132.4	127.7	-7.9	12.0	-2.5	-3.5	-2.9	123.6	130.6
INSTRUMENTS	38	5.5	158.3	174.6	160.0	155.1	159.8	180.4	-7.3	-3.1	3.0	12.9	4.5	178.9	174.2
Copiers and related equip.	386	1.4	138.4	148.3	143.5	133.3	135.2	153.6	-3.3	-7.1	1.4	13.2	3.2	151.9	152.6
MISCELLANEOUS MANUFACTURES	39	4.1	103.5	105.0	100.8	104.1	102.7	110.6	-4.0	3.3	-1.3	7.7	5.3	112.9	107.2
SUPPLEMENTARY GROUPINGS															
TOTAL, LESS NUCLEAR NONDEFENSE		740.7	108.5	112.0	110.8	111.0	113.3	117.3	-1.1	.2	2.1	3.5	4.7	118.4	116.7
UTILITY SALES TO INDUSTRIES		715.7	104.3	108.2	106.0	105.6	108.6	112.3	-2.0	-0.4	2.9	3.4	3.8	113.5	111.7
INDUSTRIAL GENERATION		70.1	85.5	85.8	87.4	87.5	85.5	89.0	2.0	.0	-2.3	4.2	3.8	85.3	88.0

Explanatory Note

Coverage. The index is a measure of industrial production expressed as a percentage of output in a reference period (currently 1977). The changes in the physical output of the nation's factories, mines, and electric and gas utilities are represented by 252 individual series in the index, covering 27 pertinent two-digit codes of the *Standard Industrial Classification* (SIC). For each individual series, index series relatives are calculated first and are then aggregated in the following two ways: (1) market groupings, such as consumer goods, equipment, intermediate products, and materials, from which the seasonally adjusted total index is derived (tables 1A and 1B), and (2) industry groupings, such as SIC two-digit industries, and major aggregates of these groupings, such as durable and nondurable manufacturing, mining, and utilities (tables 2A and 2B).

Market groupings. For purposes of analysis the individual industrial output series are grouped into materials, intermediate products, and final products; together, the latter two form the products category. Materials are industrial output requiring further processing within industry; intermediate products are expected to become inputs in nonindustrial sectors such as construction, farming, and services; and final products are assumed to enter final use as items of private consumption, government use, or capital formation. In the index, final products are subdivided into consumer goods and equipment.

Timing. A first estimate of output for a month is published about the 15th of the following month. This estimate may be revised in each of the next three months as new data become available. After the fourth month, indexes are not revised further until the time of an annual revision or a benchmark revision. The last three benchmark revisions were published in 1971, 1976, and 1985. Such revisions are derived mainly from the quinquennial *Census of Manufactures*, the quinquennial *Census of Mineral Industries*, and the *Annual Survey of Manufactures*, all prepared by the Bureau of the Census, and the *Minerals Yearbook* of the Bureau of Mines.

Source data. The indexes of industrial production are constructed from monthly data of two types: (1) directly measured output in physical units; and (2) estimates of output derived from data on input, expressed in physical units, adjusted by conversion factors that relate these inputs to physical output. The data on directly measured physical product (pounds, yards, barrels, and the like) are obtained from reports of the Bureau of the Census, the Bureau of Mines, other government agencies, and trade associations. When suitable monthly data on physical product are unavailable, estimates of physical output based on input data (kilowatt hours, production-worker hours) are used. The hours worked by production workers are collected in the monthly establishment survey of the Bureau of Labor Statistics, while data on the kilowatt hours used in industry are collected from electric utilities by the Federal Reserve Banks. The estimates of input conversion are based mainly on historical relationships that were derived from censuses and annual surveys and, when appropriate, on more recent cyclical, technological and statistical developments. Users of the index should bear in mind that, especially for the first and second estimates of a given month's indexes, the available source data are limited and are subject to change in the months following their initial receipt as well as in benchmark revisions.

Seasonal adjustment. Individual series are seasonally adjusted by the X-11 Method II of the Bureau of the Census with the intervention analysis technique applied to the series. The seasonal factors currently being used are based on data through 1985. The individual series and the major aggregate series are seasonally adjusted independently, and the factors for the aggregate series in the summary table and in tables 1 and 2 are reviewed monthly. The seasonally adjusted total index is aggregated from the seasonally adjusted market groupings of the index and may not precisely equal an aggrega-

tion of the seasonally adjusted industry groupings. A simple aggregation of the seasonally adjusted individual series within groupings may not precisely equal the seasonally adjusted groupings, primarily because aggregates are adjusted independently.

Weights. The total index and the various groupings of the component series are currently aggregated on the basis of 1977 value-added weights, which are shown in the first column of the index tables under the heading proportions. Value-added weights for 1972 are used for the 1972-77 period, while 1967 weights are used for the 1967-72 period. The weight years for earlier periods after World War II are 1963, 1958, 1954, and 1947. The indexes for the various periods are linked to provide the continuous final results expressed in relation to the 1977 comparison year taken as 100. The gross-value-weighted product series are expressed in terms of 1982 dollars.

Formula. The symbolic expression for the total index (I_t) is

$$I_t = \sum \left(\frac{q_{77} p_{77}}{\sum q_{77} p_{77}} \right) \cdot \left(\frac{q_t}{q_{77}} \right) \cdot 100 = \frac{\sum q_t p_{77}}{\sum q_{77} p_{77}} \cdot 100,$$

where q is quantity, p is Census value added per unit of output, t represents the t th period, and 77 denotes base-year values.

Reliability. The median of the revisions in total industrial production, without regard to sign, between the first and fourth estimates is 0.3 percent; that is, in about half of the cases the absolute value of the revision from the first to the fourth estimate was less than 0.3 percent. (This calculation used data for the period from January 1972 to January 1985.) Over the same period, positive changes in the first estimate were confirmed in the fourth estimate (available three months later) about 94 percent of the time. Negative changes in the first estimate were confirmed in the fourth estimate about 85 percent of the time. Thus the likelihood is high that the first estimate for a month will indicate the direction of change in the total index in a reliable manner. However, the magnitude of change as first estimated typically is revised during the next three months; these revisions are based on revised and more complete data sources. The estimates for the higher aggregates generally are considered more reliable than the estimates for their individual components. Revisions to the components often offset each other and thereby reduce the size of revisions to the aggregates.

Rounding. Changes shown for index components may not aggregate to changes for totals because of independent rounding. Percentage changes are calculated from indexes expressed in more digits following the decimal point than shown in their rounded form in the present release. Therefore, percentage changes calculated from the rounded indexes may not entirely coincide with the percentage changes calculated from unrounded indexes.

Literature. *Industrial Production—1986 Edition* contains a more detailed description of the index and the procedures used in compiling it, plus a history of its development, a glossary of terms, and a bibliography. The new edition was published in December 1986. To obtain copies of *Industrial Production—1986 Edition*, write to the Publication Services, Board of Governors of the Federal Reserve System, Washington, D.C. 20551. The price of this volume of about 440 pages is \$9.00 per copy. Selected data on industrial production are also published monthly in the Financial and Business Statistics section of the *Federal Reserve Bulletin*.

Release date. The industrial production index is released in mid-month. For the specific date, phone 202-452-3206 about the 11th of the month.

January 17, 1989

MEMORANDUM FOR WHITE HOUSE SENIOR STAFF-DESIGNATES

FROM: MICHAEL J. BOSKIN
CHAIRMAN-DESIGNATE, CEA *MJB*

SUBJECT: Economic Information Flow

	Yes	No
Range of Alternatives:	<input type="checkbox"/>	<input type="checkbox"/>
1. Similar format for daily releases.	<input type="checkbox"/>	<input type="checkbox"/>
2. More information on the underlying quality and reliability of the statistics.	<input type="checkbox"/>	<input type="checkbox"/>
3. More information on the sensitivity of financial markets to past fluctuations in the indicators.	<input type="checkbox"/>	<input type="checkbox"/>
4. More information on the relationship between changes in particular indicators and trends in the rest of the economy.	<input type="checkbox"/>	<input type="checkbox"/>
5. Weekly, biweekly, and/or monthly summaries, perspectives and briefing memoranda.	<input type="checkbox"/>	<input type="checkbox"/>

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
05. Memo	From Michael Boskin to POTUS-Elect Re: Priority Economic Issues w/Respect to Japan (2 pp.)	1/18/89	P-5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 4/10/08

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

**EXECUTIVE OFFICE OF THE PRESIDENT
COUNCIL OF ECONOMIC ADVISERS
WASHINGTON, D.C. 20500**

January 18, 1989

MEMORANDUM FOR PRESIDENT-ELECT GEORGE BUSH
GOVERNOR JOHN SUNUNU, CHIEF OF STAFF-DESIGNATE

FROM: MICHAEL J. BOSKIN *MJB*
CHAIRMAN-DESIGNATE,
COUNCIL OF ECONOMIC ADVISERS

SUBJECT: Priority Economic Issues with Respect to Japan

We are entering a critical period for world trade and growth due to accumulated trade frictions combined with uncertainty and extreme anxiety over "EC '92." EC '92 also raises the spectre of the world degenerating into a series of trade blocks (Europe, North America, East Asia, etc.) which would have substantially free trade internally, but risks still greater external tariff and non-tariff barriers than exist today. This would be a tragedy, as it would reduce world trade, slow world economic growth, and ravage the economies of the third world. While it may be in the short-term economic interests of any one entity, it surely works against long-term interests of all.

The United States should seek in all venues, from the Uruguay Round of GATT, to the economic summits, and others, to lead the world toward freer and fairer trade. This will require tremendous internal domestic political courage and talent, as the forces for protection are mobilized by narrow industry or region, while the forces for general growth, and the lower prices for consumers brought about by world-wide competition, are far more diffuse and less powerful in the various world legislatures.

Therefore, a fundamental point to get across to Japan's leaders on the President-elect's visit is that Japan must join the United States in attempting to lead the world toward free, fair trade. This is in the long-run interests of the Japanese economy, not just that of the United States and other countries. Further, the rest of East Asia is very concerned about being forced de facto into some sort of economic alliance with Japan.

The two most important direct steps, especially because they would be visible, would be to lower (1) tariff barriers to agricultural imports dramatically and (2) non-tariff barriers to non-agricultural imports. Leading candidates are tariffs on rice and wheat, where internal prices in Japan are 8-1/2 and 10 times the world market prices respectively. The Japanese will insist that it is necessary for such extreme protection of their agriculture to ensure food self-sufficiency (they recall the deprivation they experienced in World War II). Food self-sufficiency is not the same as food security. Even a modest roll back of the tariffs would get rid of their least efficient producers, lower prices internally in Japan which would be tremendously popular with the bulk of the Japanese, who are rice consumers, and various agreements could be made which would guarantee food security (reserves, guarantees from the surplus countries: United States, Canada, Argentina, etc.).

Non-tariff barriers are informal, usually reflecting cultural practice or institutional biases. Opportunities for reductions under government control are procurement practices of government and semi-official agencies (universities, NTT), especially those affecting super computers, telecommunications, and possibly construction.



Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
06. Memo	From Michael Boskin to John Sununu Re: My Technical Economic Support Role for Budget Summit Group (1 pp.)	1/18/89	P5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 5/12/05

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

January 18, 1989

MEMORANDUM FOR GOVERNOR JOHN SUNUNU
CHIEF OF STAFF-DESIGNATE

FROM: MICHAEL BOSKIN *MB*
CHAIRMMAN-DESIGNATE, CEA

SUBJECT: My Technical Economic Support Role for
Budget Summit Group

In addition to the items in the previous memo, Treasury Secretary Brady and OMB Director Darman have asked me (I would normally be the lead anyway in the so-called Troika--the Administration's economic forecasting group) to work with, coordinate and lead their professional staffs on numerous items (capital gains, interest rates, etc.) for use in the February 9 proposals and to develop a similar role over the next several months in the period between the hypothetical budget summit beginning and the usual summer forecast, which technically operates as the Gramm-Rudman-Hollings trigger.

Therefore, I do believe it would signal some additional credibility by including a statement in the President-elect's letter naming his Budget Negotiating Team, such as "with technical economic support from Michael Boskin, CEA Chairman.

Withdrawal/Redaction Sheet

(George Bush Library)

Document No. and Type	Subject/Title of Document	Date	Restriction	Class.
07. Memo	From Michael Boskin to John Sununu Re: My Understanding of the Arrangements Agreed to by the VP Prior to My Acceptance of the Job (4 pp.)	12/16/88	P/5	

Collection:

Record Group: Bush Presidential Records
Office: Chief of Staff, White House Office of
Series: Sununu, John, Files
Subseries: Cabinet Agencies Files
WHORM Cat.:
File Location: Boskin (CEA - 1989)

Open on Expiration of PRA
 (Document Follows)
 By JP (NLGB) on 12/12/07

Date Closed: 12/1/2004	OA/ID Number: 29186-006
FOIA/SYS Case #: 1998-0004-F[1]	Appeal Case #:
Re-review Case #: 2005-0426-S	Appeal Disposition:
P-2/P-5 Review Case #:	Disposition Date:
AR Case #:	MR Case #:
AR Disposition:	MR Disposition:
AR Disposition Date:	MR Disposition Date:

RESTRICTION CODES

Presidential Records Act - [44 U.S.C. 2204(a)]

- P-1 National Security Classified Information [(a)(1) of the PRA]
- P-2 Relating to the appointment to Federal office [(a)(2) of the PRA]
- P-3 Release would violate a Federal statute [(a)(3) of the PRA]
- P-4 Release would disclose trade secrets or confidential commercial or financial information [(a)(4) of the PRA]
- P-5 Release would disclose confidential advice between the President and his advisors, or between such advisors [(a)(5) of the PRA]
- P-6 Release would constitute a clearly unwarranted invasion of personal privacy [(a)(6) of the PRA]

C. Closed in accordance with restrictions contained in donor's deed of gift.

PRM. Removed as a personal record misfile.

Freedom of Information Act - [5 U.S.C. 552(b)]

- (b)(1) National security classified information [(b)(1) of the FOIA]
- (b)(2) Release would disclose internal personnel rules and practices of an agency [(b)(2) of the FOIA]
- (b)(3) Release would violate a Federal statute [(b)(3) of the FOIA]
- (b)(4) Release would disclose trade secrets or confidential or financial information [(b)(4) of the FOIA]
- (b)(6) Release would constitute a clearly unwarranted invasion of personal privacy [(b)(6) of the FOIA]
- (b)(7) Release would disclose information compiled for law enforcement purposes [(b)(7) of the FOIA]
- (b)(8) Release would disclose information concerning the regulation of financial institutions [(b)(8) of the FOIA]
- (b)(9) Release would disclose geological or geophysical information

OFFICE OF THE PRESIDENT-ELECT
WASHINGTON, D.C. 20270

December 16, 1988

MEMORANDUM FOR GOVERNOR JOHN SUNUNU
CHIEF OF STAFF-DESIGNATE

FROM: MICHAEL J. BOSKIN
DESIGNEE, CHAIRMAN OF THE PRESIDENT'S
COUNCIL OF ECONOMIC ADVISORS



SUBJECT: MY UNDERSTANDING OF THE ARRANGEMENTS AGREED TO
BY THE VICE PRESIDENT PRIOR TO MY ACCEPTANCE OF
THE JOB

The Vice President and Bob Teeter independently suggested that I review these issues with you, which I had planned to do anyway so that there would be no misunderstanding. I consider each of these to be vital to my proper role on behalf of a Bush presidency and believe that you will see these issues in the same way. I thought that reviewing them briefly with you would prevent any future misunderstandings as well as arming you in dealings with any third parties.

I. The Role of the CEA and the CEA Chairman

1. The Council of Economic Advisors will be a full member of all policy committees and councils relating in any way whatsoever to economics. In the current administration, this includes the Economic Policy Council, Domestic Policy Council (of which the current CEA Chairman is a member), the Quad Committee, the Troika, etc.; all interagency committees dealing with any aspect of economic policy (at lower levels I would designate another member or some other person to participate). To quote the Vice President in my meeting prior to my acceptance, "Anything I would have wanted to be included as part of I will." We agreed to it this way because the organization of policymaking in the White House has not yet been decided. Will we stick with a similar format to the existing White House, e.g. Cabinet Councils, or change it? The CEA Chairman is occasionally invited to National Security Council meetings when the subject matter indicates that would be useful.

Governor John Sununu

Page Two

This extends to legislative strategy with respect to any component of economic policy, though admittedly I, or my representative, would be there mostly to provide technical support about what might be traded away in terms of the economy or other aspects of economic policy, not as experts on legislative strategy.

The CEA Chairman (or a member when appropriate) will attend the daily White House Senior Staff meetings, or their equivalent.

2. I will have complete and direct access to the President any time it is necessary and regular meetings with the President. Clearly, the President does not need an economics briefing every day as he needs a national security briefing. But some regular meeting, perhaps every other week, would be very useful.

3. While the Chairman of the Council of Economic Advisors will not be a member of the Cabinet (a decision he made some time ago, with respect to the national security advisor, the director of the CIA, the UN Ambassador, CEA Chairman, etc.), the Chairman of the President's Council of Economic Advisors will be the chief economic advisor to the President and will attend Cabinet meetings. Of course, the Treasury Secretary is the administration's chief economic spokesman, and other Cabinet members will lead on other issues, e.g. Dick Darman on the budget. It is important for the President to receive the highest quality and most timely economic advice. It is also important to avoid the appearance which damaged the Reagan administration of the President being separated from or unconcerned with economic advice.

4. I will have the major role in selecting the other two members of the Council of Economic Advisors. I interpret this as a combination of recruiting, prioritizing and "soft veto." This was agreed to by Craig Fuller just prior to my seeing the Vice President, as he indicated this was sort of a "given." It would do much for the CEA and the image of the Bush administration -- relative to previous administrations, but especially the Reagan administration -- to get two other members who are distinguished economists, as well as meet all the other constraints that presidential appointments must have, as well as assisting us politically with various constituencies.

5. It is essential that I be part of the budget negotiating team to be named "immediately after the inauguration." This would probably be normal in any event, but the economy, forecasts, assumptions, etc., will not only be at center stage, but we will have to have the capacity to respond very quickly at hand. Obviously, I will follow your and Darman's lead (the economic forecasts have been the primary issue raised in many of my, and Darman's, sessions on the Hill).

6. The CEA Chairman will continue to be an integral part of and attendee at both the annual ministerial meetings and economic summits (although obviously in a supporting role for the Treasury Secretary, the President, etc.).

7. The CEA will continue its current roles in International Economic Policy Coordination and Third World Debt Policy.

8. The CEA will continue its role in International Organizations, including the Chairman's traditional position as head of the OECD Economic Policy Committee, CEA's role as head of the U.S. delegation to other committees, especially Working Party 1.

II. Issues Related to Running the CEA

1. It was agreed that I would receive the same arrangement, other than Cabinet status, that Sprinkel currently has. These include no staff or budget cuts. Because of the incredibly long hours a CEA Chairman puts in, like Sprinkel, I will have a car and driver portal to portal as well as White House transportation agency priority transportation once at the office (as I understand it, the list of White House executive office cars usually includes Chief of Staff, Deputy Chief of Staff, OMB, National Security Advisor and CEA Chairman). I don't mean to sound petty, but this gives me an extra 45 minute margin per day, and some flexibility in where I live.

2. Privileges in the Executive Dining Room in addition to the staff dining room.

Governor Sununu
Page Four

3. Permission to travel first class internationally. I have to Chair the Economic Policy Committee at the OECD, etc. Sprinkel tells me that usually the State Department, which finances these trips, pays business class air travel and he arranges to have the difference paid by giving a speech the same day, so long as it does not violate any laws, the difference being reimbursed via a 501C3 organization. I would like this option as well.

I do not mean to violate any spirit of teamwork or collegiality by getting this all down in print and up front. In my meeting with the Vice President he was very agreeable and said yes to some general things. I wanted to make sure that no one misinterprets them while we are doing more serious things.

I look forward to working with you on a policy agenda -- something into which we will have to put a lot of work soon, and in which, I suspect, we will have very similar views.