



Industry, Science and Technology Canada

Industrie, Sciences et Technologie Canada Canadä

## RATE OF CAPACITY UTILIZATION

Second Quarter, 1988

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### RATE OF CAPACITY UTILIZATION

Second Quarter, 1988

Statistical Analysis Policy and Evaluation Industry, Science and Technology Canada AMERICA, ID LIESEMERACISC MORAMANY JASPANICAROVO, JAMES DESERRASSIC VRARIUS VOLONIA SOLICA VRARIUS VOLONIA JAMES VOLONIA VOLONIA

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[NDUSTRIELLE RESPONALE.]

### **FOREWORD**

The Rates of Capacity Utilization published by Industry, Science and Technology Canada (ISTC) are based on the Wharton School method of estimating capacity utilization, usually referred to as the "trend-through-peaks" method. Notes on the methodology used in computing these rates were included as a supplement to the First Quarter 1980 release.

Many conceptual and measurement problems surround the calculation of capacity utilization. Consequently, the utilization rates presented here should be treated as statistical estimates. These rates are more useful when they are considered in conjunction with other data related to industrial performance.

It should be pointed out that this report incorporates the impact of revisions back to 1984 in the industrial production data published by Statistics Canada.

#### RATE OF CAPACITY UTILIZATION - CANADA

#### **SECOND QUARTER 1988**

The overall rate of capacity utilization in Canadian industry recorded in the second quarter of 1988 was 88.0 percent, an increase of 0.2 percentage points from the rate of 87.8 percent reported for the previous quarter (Table 1). It is about 4 percentage points above the level attained in the second quarter of 1987 and substantially higher than the average rate of 79.6 percent over the 1981-1987 period (Table 5). It is the highest rate since a low of 68.7 percent was reached in the fourth quarter of 1982 during the 1981-1982 recession (Chart 1). However, it is still below the pre-recession peak (89.3 percent) attained in the third quarter of 1979.

Three broad industry categories comprise the overall measure of industrial capacity: mining (including quarrying and oil wells), manufacturing, and electric utilities (including gas and water utilities). Of these three categories, on a seasonally adjusted basis, mining showed an increase in operating rates between the first and second quarters of 1988 while utilities registered a decline and manufacturing remained unchanged (Table 2).

For the mining sector, the increase was 2.0 percentage points. Its current level of 88.9 percent is 9.2 percentage points higher than the level recorded in the second quarter of 1987. The data presented in Table 1 show that the current capacity utilization rate in mining is the highest since 1982. It is significantly above the average annual rate of 73.4 percent for the 1981-1987 period, as well as the average rate of 77.4 percent for the 1971-1980 period (Table 5).

At 78.2 percent, the utilities sector showed a decrease of 1.4 percentage points in the second quarter of 1988 from the first quarter rate of 79.6 percent. The current rate is also substantially (2.6 percentage points) below its level a year ago. It is also less than the average rate experienced over the 1981-1987 period (80.0 percent) and well below the average rate for the 1971-1980 period (93.3 percent).

As already mentioned, the second quarter capacity utilization rate in the manufacturing sector remained unchanged from the first quarter at 89.2 percent. It was, however, 3.6 percentage points above the level attained a year ago in the second quarter of 1987, and substantially above the average annual rate of 81.3 percent over the 1981-1987 period.

The capacity utilization rate for the non-durables segment of manufacturing registered a decrease of 0.2 percentage points (to reach 89.2 percent) from its first quarter level of 89.4 percent. Among the 13 industries which make up this segment of manufacturing, nine recorded a decline in their operating rates during the second quarter of 1988, the largest decrease (-2.8 percentage points) being in textile products. Four industries recorded an increase; the most significant increases occurred in the tobacco and printing and publishing industries, 3.7 and 1.7 points, respectively (Table 2).

The capacity utilization rate in durable manufacturing was at 89.1 percent in the second quarter, up 0.1 percentage points from the first quarter of 1988. Six of the nine industries belonging to this segment of manufacturing recorded lower utilization rates during this quarter, with fabricated metal and furniture and fixtures showing the largest declines of 2.8 and 2.5 percentage points, respectively. Transportation equipment and primary metals showed increases of 3.7 and 1.8 percentage points, respectively.

Detailed comparative tables and charts are included in this report. Data for the years 1971-1981 are available upon request.

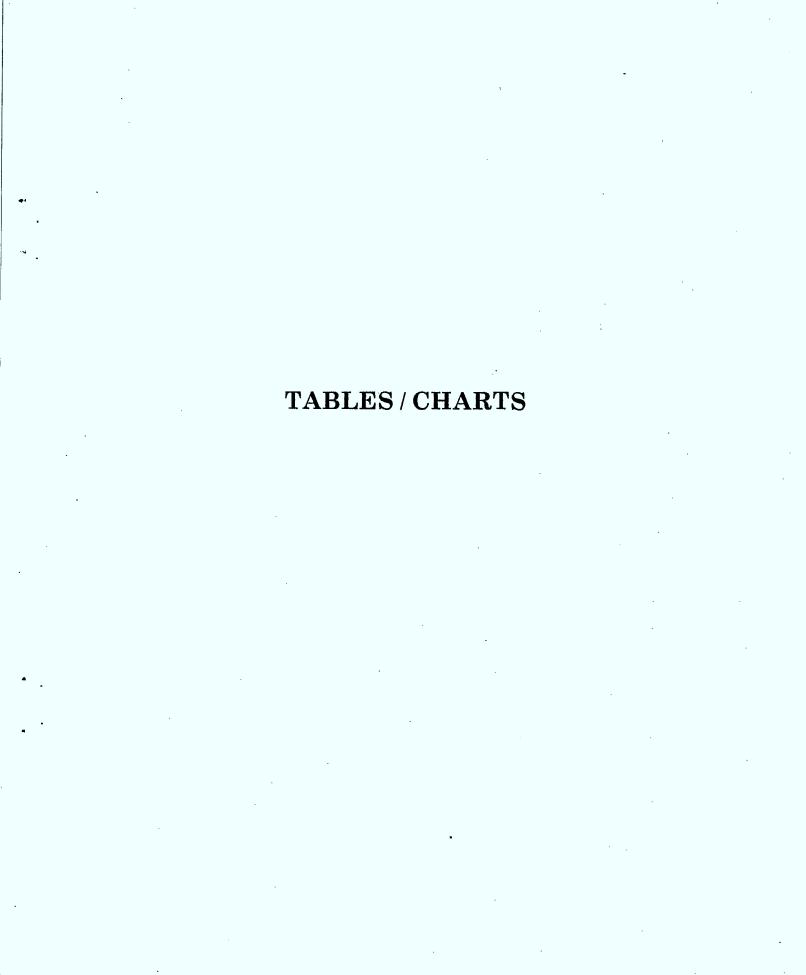


Table 1

CAPACITY UTILIZATION - CANADA

MAJOR SECTORS

			`		'G	-		
YEAR		INDUSTRIAL	MINING	TOTAL	NON-DURABLE	DURABLE	UTILITIES	
1982	1	75.3	64.1	77.4	81.7	73.6	82.5	
	2	71.3	63.4	72.6	77.5	68.1	77.4	
	3	69.6	62.1	70.8	77.7	64.6	75.6	
	4	68.7	64.1	69.2	77.5	61.6	74.7	
1983	1	70.3	63.4	71.5	80.1	63.7	76.1	
<u> </u>	2	72.5	65.4	73.4	81.7	66.1	79.8	
	3	75.4	70.6	76.0	83.8	69.0	80.3	
	4	77.0	71.2	78.1	83.9	72.9	80.1	
1984	1	78.1	73.2	79.5	83.7	75.7	77.7	
	2	80.7	77.8	81.7	86.7	77.3	79.7	
	3	81.5	78.4	82.7	86.7	79.1	79.5	
	4	81.3	78.4	82.4	85.7	79.3	80.0	
1985	1	81.8	80.4	84.2	85.1	80.1	80.5	
ŀ	2	82.3	81.0	83.0	84.4	81.8	79.6	
	3	83.0	79.1	84.5	84.7	84.4	80.1	
	4	84.1	81.0	85.3	87.1	83.6	82.0	
1986	1	83.1	79.7	84.5	86.9	82.3	79.7	
	2	82.7	78.4	84.5	87.2	82.1	78.9	
	3	81.7	77.1	83.5	86.7	80.5	78.0	
	4	82.1	77.8	83.7	86.6	81.2	79.2	
1987	1	83.1	78.4	85.0	87.3	82.8	79.0	
	2	83.9	79.7	85.6	88.1	83.3	80.8	
	3	85.5	83.7	86.7	88.6	85.0	80.6	
	4	87.3	85.5	88.9	89.2	88.7	79.1	
1988	1	87.8	86.9	89.2	89.4	89.0	79.6	
	2	88.0	88.9	89.2	89.2	89.1	78.2	
		,						

Chart 1

CAPACITY UTILIZATION
Industrial Sector (Canada)

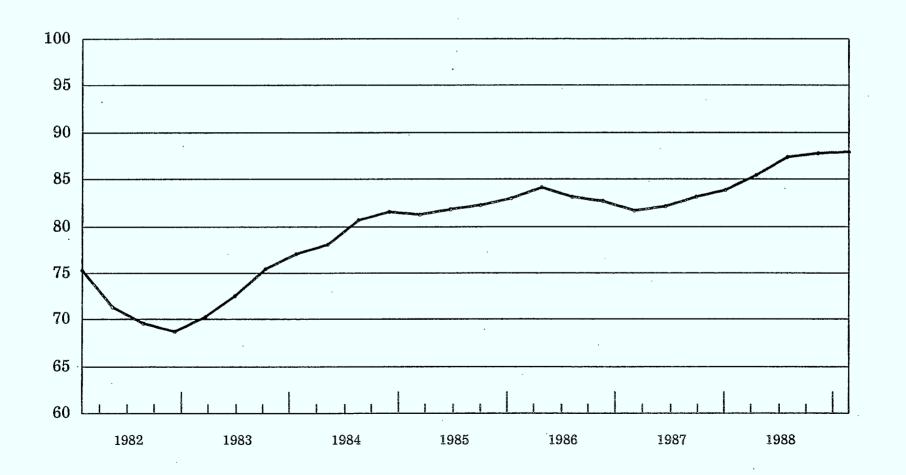


Table 2

CAPACITY UTILIZATION

		Percen	tage Points Cl	anges F	rom	
	II Q. 1988 Level	I Q. 1988	II Q. 1987	Last Peak		
Industrial	88.0	0.2	4.1	-9.4	(I,1974)	
Mining	88.9	2.0	9.2	-11.1	(III,1973)	
Manufacturing	89.2	0.0	3.6	-9.0	( <b>I,197</b> 4)	
Non-Durables	89.2	-0.2	1.1	-8.7	(I,1974)	
Food	91.8	-0.4	0.0	-8.2	(IV,1973	
Beverage	72.1	-0.3	1.1	-27.9	(II,1974	
Tobacco	48.1	3.7	0.0	-51.9	(IV,1977	
Rubber	79.5	-0.3	-1.1	-20.5	(IV,1984	
Plastics	99.1	-0.4	2.7	-0.9	(IV,1987	
Leather	78.5	-2.0	-3.1	-21.5	(I,1981	
Prim. Textile	95.9	-2.1	0.9	-4.1	(IV,1987	
Textile Prod.	95.2	-2.8	0.8	-4.8	(IV,1987	
Clothing	97.1	-1.9	-2.0	-2.9	(III,1987	
Paper & Allied	96.6	0.9	3.5	-3.4	(II,1974	
Printing & Publ.	95.7	1.7	4.4	-4.3	(II,1981	
Ref. Pet. & Coal	80.6	0.8	4.0	-19.4	(III,1983	
Chem. & Chem. Prod.	77.2	-1.3	-1.5	-22.8	(II,1973	
Durables	89.1	0.1	5.8	-9.4	(I,1974	
Wood	93.2	0.4	0.6	-6.8	(IV,1987	
Furniture & Fixtures	90.0	-2.5	3.7	-10.0	(I,1974	
Primary Metals	89.8	1.8	8.7	-10.2	(III,1974	
Metal Fab.	96.0	-2.8	2.2	-4.0	(I,1980	
Machinery	68.4	-1.2	6.4	-31.6	(III,1979	
Trans. Equip.	86.8	3.7	10.7	-13.2	(I,1979	
Electrical Products	98.9	-1,1	7.0	-1.1	(I,1988	
Non-Met. Min.	98.4	-1.6	2.5	-1.6	(I,1988	
Other Mfg.	70.2	-0.6	0.5	-29.8	(II,1979	
Electric Power,				,		
Gas. W. Util.	78.2	-1.4	-2.6	-21.8	(III,1973	

Chart 2

CAPACITY UTILIZATION

Major Sectors (Canada)

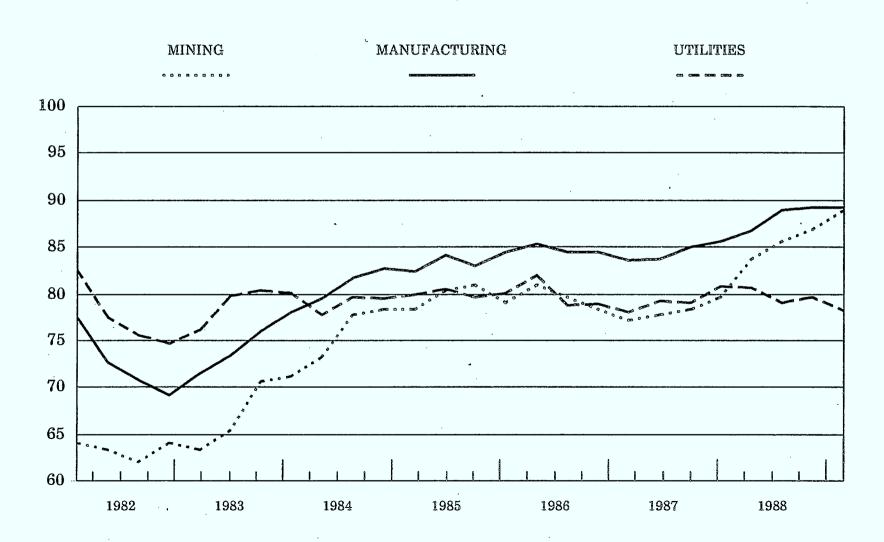


Chart 3

CAPACITY UTILIZATION

Major Sectors (Canada)

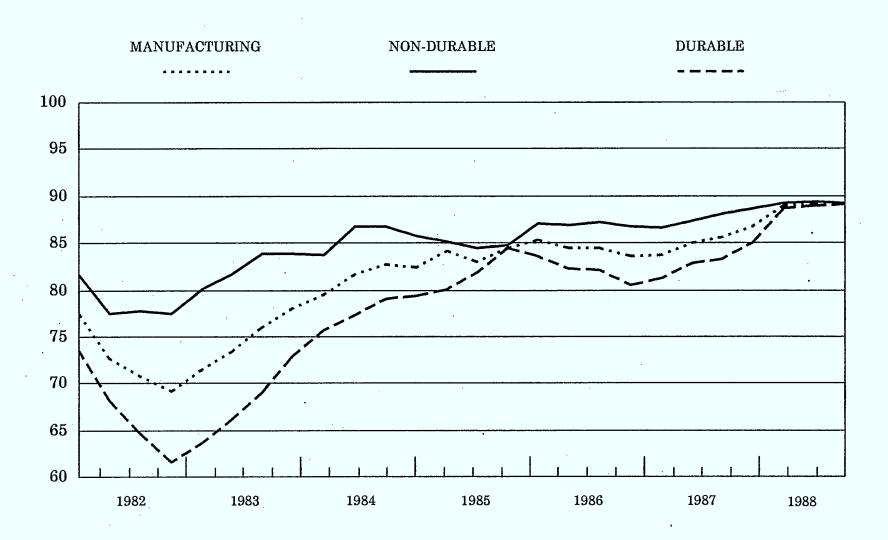


Table 3

MANUFACTURING INDUSTRIES
CAPACITY UTILIZATION
NON-DURABLE

YEA	ΔR	NON-DURABLE	FOOD	BEVERAGES	TOBACCO	RUBBER
1982	1	81.7	89.7	73.7	83.5	67.8
2002	2	77.5	90.2	72.7	84.0	63.8
	3	77.7	91.5	69.3	80.3	67.3
-	4	77.5	88.4	68.2	80.0	62.6
	-		00.1	331.2		5
1983	1	80.1	88.0	67.2	78.8	70.5
	2	81.7	86.6	65.4	72.7	73.3
	3	83.8	8 <b>5.3</b>	68.2	69.1	75.2
	4	83.9	85.8	67.2	70.5	82.3
1984	1	83.7	89.7	67.7	71.8	87.9
	2	86.7	88.4	69.7	68.3	91.2
	3	86.7	88.9	70.2	64.8	94.5
	4	85.7	88.5	69.2	66.9	100.0
		·				
1985	1	85.1	88.9	68.9	59.4	89.5
	2	84.4	90.2	68.7	59.2	94.3
	3	84.7	91.4	68.4	53.4	96.1
	4	87.1	93.5	69.6	51.6	93.6
1986	1	86.9	91.4	71.6	52.2	95.5
	2	87.2	92.7	73.5	46.5	87.3
	3	86.7	92.2	70.3	51.8	79.2
	4	86.6	92.6	72.3	47.7	79.7
1987	1	87.3	92.2	69.8	48.2	78.7
	2	88.1	91.8	71.0	48.1	80.6
	3	88.6	91.4	70.8	47.9	83.1
	4	89.2	90.2	71.2	45.4	82.8
1988	1	89.4	92.2	72.4	44.4	79.8
	2	89.2	91.8	72.1	48.1	79.5

Table 3 (cont'd)

## MANUFACTURING INDUSTRIES CAPACITY UTILIZATION NON-DURABLE

f		NON-			DDIM	TEXTILE	
YEA	ΛD	DURABLE	PLASTICS	LEATHER	PRIM. TEXTILE	PRODUCTS	CLOTHING
1197	110	DORABLE	FLASTICS	LEATHER	TEXTLE	TRODUCTS	Chomma
1982	1	81.7	81.3	89.1	75.3	74.7	86.4
-5-5-	2	77.5	73.4	81.5	63.3	67.2	81.7
	3	77.7	74.0	82.3	63.0	70.7	82.6
	4	77.5	74.6	77.5	72.6	75.0	79.7
1983	1	80.1	77.6	81.2	83.0	83.9	82.5
	2	81.7	79.7	84.0	91.5	88.2	82.4
	3	83.8	83.3 <sup>-</sup>	87.6	92.0	89.7	81.5
	4	83.9	86.0	93.2	92.5	89.5	82.3
1004	4	00.77	00.77	00.0	00.0	89.3	86.0
1984	1	83.7	88.7	96.9	86.9	91.8	90.6
	2 3	86.7	91.2	97.7	88.3	88.0	90.6 87.7
		86.7	86.4	94.8	85.3	86.0	89.5
	4	85.7	88.9	89.1	84.1		69.0
1985	1	85.1	90.0	87.1	84.6	84.0	88.6
	2	84.4	92.4	90.7	82.5	84.7	88.5
	3	84.7	93.4	92.5	87.4	89.8	88.5
	4	87.1	94.4	92.4	85.3	91.4	95.8
1986	1	86.9	91.2	93.3	85.0	90.3	94.8
1300	2	87.2	90.8	88.5	85.5	91.8	95.7
	3	86.7	92.4	91.2	86.0	88.1	96.5
	4	86.6	91.4	91.1	87.3	88.8	94.7
	<b>-</b>	00.0	) J <del>.</del>	01.1	01.0	00.0	01.1
1987	1.	87.3	95.6	86.4	92.8	93.8	97.4
	2	88.1	96.4	81.6	95.0	94.4	99.1
	3	88.6	97.3	82.5	96.2	95.9	100.0
	4	89.2	100.0	81.5	100.0	100.0	96.3
1988	1	89.4	99.5	80.5	98.0	98.0	99.0
1.000	2	89.2	99.1	78.5	95.9	95.2	97.1
	u	00.2	55.1	10.0	50.0	50.2	0,1,2

Table 3 (cont'd)

## MANUFACTURING INDUSTRIES CAPACITY UTILIZATION NON-DURABLE

		NON-	PAPER &	PRINT &	REFINED	снем. & снем.
YEA	AR	DURABLE	ALLIED	PUB.	PETROL & COAL	PRODUCTS
1982	1	81.7	78.4	91.7	73.4	73.6
	2	77.5	73.3	87.1	61.3	68.0
	3	77.7	71.6	84.5	70.2	69.6
	4	77.5	71.6	82.8	94.4	69.6
1983	1	80.1	77.6	84.9	72.6	75.0
	2	81.7	81.9	86.0	71.0	77.9
•	3	83.8	85.3	87.1	100.0	80.9
	4	83.9	86.2	87.3	75.0	81.5
1984	1	83.7	78.4	89.3	78.2	79.9
	2	86.7	87.9	90.3	77.4	83.4
	3	86.7	88.8	91.4	72.6	. 85.4
	4	85.7	87.1	90.6	71.0	81.7
1985	1	85.1	85.3	89.9	72.6	83.0
	2	84.4	82.8	90.1	75.0	78.0
	3	84.7	81.9	89.4	72.6	78.6
	4	87.1	86.2	92.1	75.8	79.9
1986	1	86.9	87.9	92.2	72.6	79.8
	$\overline{2}$	87.2	90.5	92.4	73.4	77.0
	3	86.7	90.5	91.7	75.8	76.3
	4	86.6	90.5	90.2	72.6	76.9
1987	1	87.3	93.1	90.3	75.8	75.5
100.	2	88.1	93.1	91.3	76.6	78.7
	3	88.6	94.0	93.0	76.6	78.6
	4	89.2	96.6	94.7	76.6	79.2
1988	1	89.4	95.7	94.0	79.8	78.5
1000	2	89.2	96.6	95.7	80.6	77.2
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Table 4

MANUFACTURING INDUSTRIES
CAPACITY UTILIZATION
DURABLE

	<del>**</del>			FURNITURE	PRIMARY	FAB.	
YEA	AR	DURABLE	WOOD	& FIXTURES	METALS	METAL	MACHINERY
	········						
1982	1	73.6	65.9	66.6	68.5	89.4	74.3
	2	68.1	63.6	61.5	58.2	79.1	63.5
	3	64.6	62.9	59.7	50.4	75.2	58.7
	4	61.6	63.0	62.0	52.5	72.3	54.8
1983	1	63.7	71.6	65.9	54.5	72.2	51.0
	2	66.1	72.4	68.1	62.6	73.0	52.2
,	3	69.0	81.5	72.0	66.9	74.8	54.2
	4	72.9	77.7	73.4	71.9	76.5	56.1
1984	1	75.7	75.5	77.2	74.6	78.2	60.4
•	2	77.3	82.1	73.8	76.6	78.1	63.8
	3	79.1	84.2	72.0	78.5	78.9	63.2
	4	79.3	86.3	73.4	77.5	81.5	62.7
1985	1.	80,1	84.7	75.6	77.9	85.1	61.4
	2	81.8	86.1	81.0	79.9	87.7	62.4
	3	84.4	92.3	83.1	82.5	90.3	62.6
	4	83.6	93.5	84.5	80.0	91.0	62.1
1986	1	82.3	90.6	83.5	79.7	87.3	62.3
	2	82.1	92.5	83.2	76.5	88.0	64.8
	3	80.5	83.6	84.6	76.3	88.8	62.8
	4	81.2	81.5	84.4	79.6	87.8	62.3
1987	1	82.8	92.7	84.9	81.4	91.3	61.8
	2	83.3	92.6	86.3	81.1	93.8	62.0
	3	85.0	99.6	89.1	83.0	95.5	63.7
	4	88.7	100.0	92.0	87.6	98.1	68.8
1988	1	89.0	92.8	92.5	88.0	98.8	69.6
	2	89.1	93.2	90.0	89.8	96.0	68.4

Table 4 (cont'd)

# MANUFACTURING INDUSTRIES CAPACITY UTILIZATION DURABLE

		· · · · · · · · · · · · · · · · · · ·		·		7
			TRANS.	ELECT.	NON-METALLIC	
YEA	λR	DURABLE	EQUIP.	PROD.	MINERALS	OTHER MFG.
	***************************************					7.
1982	1	73.6	61.1	84.2	69.7	78.5
	2	68.1	63.8	80.3	60.7	76.8
	3	64.6	63.9	74.8	59.8	71.9
	4	61.6	53.5	72.1	60.7	68.8
	-1	01.0	00.0	12.1	00.1	00.0
1983	1	63.7	60.1	70.4	65.6	66.4
1	2	66.1	63.4	68.7	69.7	67.9
}	3	69.0	66.7	69.3	71.3	68.7
· ·	4	72.9	78.0	73.6	71.3	70.9
	7.	12.0	10.0	10.0	11.0	10.3
1984	1	75.7	81.7	77.0	74.6	76.8
1001	2	77.3	79.8	83.0	76.2	73.7
	3	79.1	84.0	86.1	76.2	74.4
	4	79.3	82.6	86.3	77.0	74.3
	~	10.0	02.0	00.3	11.0	1-2.0
1985	1	80.1	81.9 .	88.4	77.0	76.3
=000	2	81.8	84.2	86.7	83.6	76.9
	3	84.4	90.0	84.9	86.9	76.8
	4	83.6	88.1	85.2	86.1	72.6
İ	-X	05.0	00.1	00.2	00.1	124.0
1986	1	82.3	85.6	86.6	85.2	72.5
1000	2	82.1	84.4	85.6	85.2	73.8
	3	80.5	80.2	86.9	86.1	72.4
	4	81.2	80.2	88.8	89.3	73.0
	-	01.2	00.2	00.0	00.0	10.0
1987	1	82.8	78.9	87.8	96.7	69.1
	$\overline{2}$	83.3	76.1	91.9	95.9	69.7
	3	85.0	76.6	91.9	96.7	71.6
	4.	88.7	81.5	96.3	100.0	72.8
	L	00.1	01.0	00.0	100.0	1 2.0
1988	1	89.0	83.1	100.0	100.0	70.8
12000	2	89.1	86.8	98.9	98.4	70.2
		03.2	20.0	55.0	0 0. 2	10.2
						· ·

Table 5

CAPACITY UTILIZATION - CANADA
(Percent)

	•							] 1	1981-198	7	1971-1980
									6	uarter	
	1981	1982	1983	1984	1985	1986	1987	Avg.	Low	High	Average
Industrial	81.6	71.2	73.8	80.4	82.8	82.4	84.9	79.6	68.7	87.3	87.7
Mining	65.5	63.4	67.6	76.9	80.4	78.2	81.8	73.4	62.1	85.6	77.4
Manufacturing	85.7	72.5	74.7	81.6	83.8	84.0	86.5	81.3	69.2	89.0	89.8
Non-Durables	88.4	78.6	82.4	85.7	85.3	86.8	88.3	85.1	77.5	91.1	90.8
Food	92.0	89.9	86.4	88.9	91.0	92.2	91.4	90.3	85.3	93.5	95.3
Beverage	79.2	71.0	67.0	69.2	68.9	71.9	70.7	71.1	65.4	81.0	90.2
Tobacco	85.3	81.9	72.8	67.9	55.9	49.5	47.4	65.8	45.4	91.9	91.5
Rubber	76.0	65.4	75.3	93.4	93.4	85.4	81.3	81.5	62.6	100.0	86.4
Plastics	87.9	75.8	81.6	88.8	92.5	91.4	97.3	87.9	73.4	100.0	87.3
Leather	95.3	82.6	86.5	94.6	90.7	91.0	83.0	89.1	77.5	100.0	93.3
Prim. Textile	91.5	68.5	89.7	86.1	84.9	85.9	96.0	86.1	63.0	100.0	89.1
Textile Prod.	91.9	71.9	87.8	88.8	-87.5	89.7	96.0	87.7	67.2	100.0	93.4
Clothing	92.8	82.6	82.2	88.4	90.3	95.4	98.2	90.0	79.7	100.0	94.2
Paper & Allied	86.4	73.7	82.7	85.5	84.0	89.8	94.2	85.2	71.6	96.6	85.8
Printing & Publ.	97.3	86.5	86.3	90.4	90.4	91.6	92.3	90.7	82.8	100.0	95.7
Refined Petrol & Coal	80.6	74.8	79.6	74.8	74.0	73.6	76.4	76.3	61.3	100.0	82.1
Chemicals & Chemical Products	82.4	70.2	78.8	82.6	79.9	77.5	78.0	78.5	68.0	85.5	88.5

Table 5 (cont'd)

CAPACITY UTILIZATION - CANADA
(Percent)

								]	1981-198	37	1971-1980
									(	Quarter	Line
	1981	1982	1983	1984	1985	1986	1987	Avg.	Low	High	Average
Durables	83.2	67.0	67.9	77.8	82.5	81.5	84.9	77.8	61.6	88.7	89.0
Wood	82.7	63.8	75.8	82.0	89.1	87.0	96.2	82.4	62.9	100.0	89.7
Furniture & Fixtures	82.8	62.4	69.8	74.1	81.0	83.9	88.1	77.4	59.7	92.0	82.5
Primary Metals	77.9	57.4	64.0	76.8	80.1	78.0	83.3	73.9	50.4	87.6	86.3
Metal Fabrication	93.5	79.0	74.1	79.2	88.5	88.0	94.7	85.3	72.2	98.1	91.1
Machinery	87.7	62.8	53.4	62.5	62.1	63.0	64.1	65.1	51.0	93.2	91.2
Transportation Equipment	68.9	60.6	67.0	82.0	86.0	82.6	78.3	75.1	53.5	90.0	88.1
Electrical Products	94.5	77.8	70.5	83.1	86.3	87.0	92.0	84.5	68.7	97.5	88.3
Non-Metallic Minerals	82.2	62.7	69.5	76.0	83.4	86.4	97.3	79.6	59.8	100.0	91.6
Other Manufacturing	83.5	74.0	68.5	74.8	75.6	72.9	70.8	74.3	66.4	84.6	91.5
Elec. Pow. Gas. W. Util.	84.7	77.6	79.1	79.2	80.5	79.0	79.9	80.0	74.7	85.9	93.3
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DATE DUE - DATE DE RETOUR							
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