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THI MICRO ECONOMIC TODA

Fourth Edit

**BRADLEY R. SCHILL** 

# THE MICRO ECONOMY TODAY

Fourth Edition

BRADLEY R. SCHILLER

The American University



### ABOUT THE AUTHOR

Dr. Bradley Schiller has two decades of experience teaching introductory economics at The American University, the University of California (Berkeley and Santa Cruz), and the University of Maryland. Dr. Schiller's unique contribution to teaching is his ability to relate basic principles to current socioeconomic problems, institutions, and public policy decisions. This perspective is evident throughout *The Micro Economy Today*.

Dr. Schiller derives this policy focus from his extensive experience as a Washington consultant. He has been a consultant to most major federal agencies, many congressional committees, and political candidates. In addition, he has evaluated scores of government programs and helped design others. His studies of discrimination, employment and training programs, tax reform, pensions, welfare, and Social Security have appeared and been cited in both professional journals and popular media. Dr. Schiller is also a frequent commentator on economic policy on radio shows.

Dr. Schiller received his Ph.D. from Harvard in 1969. His B.A. degree, with great distinction, was completed at the University of California (Berkeley) in 1965. He is now a professor of economics in the School of Public Affairs at The American University.

Fourth Edition

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### OF PAMILIES AND PERSONS, AN

(In 1986 dollars)

					(In 198	6 dolla:	rs)					
	i		Familie	s¹			Person	ns	Median	income of p	persons 15 y	ears c
	<u> </u>				··= = · · - · ·			W	and over with income <sup>2</sup>			
	T.			Below pov i	· · · · · · ·		poverty level		Males		Females	
		i '	Tota	r1	Fema househo		1			Year-		Ye
	NT	Madian.		<u> </u>		-	Number		All	round full-time	All	roc full-tu
ear	Number (millions)	Median income	Number (millions)	Rate	Number (millions)	Rate	(millions)	Rate	persons	workers	persons	worke
	· · · · · · · · · · · · · · · · · · ·			. ,	· ·	<b>-</b>		+		•		1
LL RACES 963	47.5	\$22,379	7.6	15.9	2.0	40.4	36.4	19.5	\$16,154	\$21.740	\$4,914	\$12,7
964	48.0	23,221	7.2	15.0	1.8	36.4	36.1	19.0	16,426	22,213	5,122	13,1
765	48.5	24,177	6.7	13.9	1.9	38.4	33.2	17.3	17,456	22,929	5,285	13,2
266 <sup>3</sup>	49.2	25,448	5.8	11.8	1.7	33.1	28.5	14.7	17,927	23,499	5,535	13,6 13,7
967 968	50.1 50.8	26,052 27,205	5.7 5.0	11.4 10.0	1.8 1.8	33.3 32.3	27.8 25.4	14.2 12.8	18,236 18,847	23,937 24,627	5,915 6,363	14,3
69	51.6	28,213	5.0	9.7	1.8	32.7	24.1	12.1	19,228	25,925	6,377	15,1
770	52.2	27,862	5.3	10.1	2.0	32.5	25.4	12.6	18,834	25,933	6,317	15,3
71	53.3	27,845	5.3	10.0	2.1	33.9	25.6	12.5	18,689	26,074	6,519	15,4
772	54.4	29,134	5.1	9.3	2.2	32.7	24.5	11.9	19,526	27,619	6,812	15,8
773	55.1	29,734	4.8	8.8	2.2	32.2	23.0	11.1	19.877	28,295	6,899	16,0
774 <sup>3</sup>	55.7	28,687	4.9	8.8 9.7	2.3 2.4	32.1 32.5	23.4 25.9	11.2 12.3	18,792 -18,036	27,041 326,349	6;853 6,896	15,9 15,7
975 976	56.2 56.7	27,949 28,811	5.5 5.3	9.7 9.4	2.5	33.0	25.0	11.8	- 18 155 €	26.694	6,888	16,0
777	57.2	28,966	5.3	9.3	2.6	31.7	24.7	11.6	18,316	27,267	7,131	15,9
778	57.8	29,647	5.3	9.1	2.7	31.4	24.5	11.4	18,378	26,995	ø,837	16,2
779⁴	59.6	29,588	5.5	9.2	2.6	30.4	26.1	11.7	17,793	26,403	6,574	15,9
80	60.3	27,974 🖚		10.3	3.0	32.7	29.3	13.0	16,673	25,512	6,547	15,4
281	61.0	26,991	6.9	11.2	3.3	34.6	31.8	14.0	16,243	24,946	6,580	15,0
982 983	61.4 62.0	26,619 27,155	7.5 7.6	12.2 12.3	3.4 3.6	36.3 36.0	34.4 35.3	15.0 15.2	15,846 16,135	24,599 24,769	6,687 7,049	15,5 15,9
983 984	62.7	27,903	7.3	11.6	3.5	34.5	33.7	14.4	16,468	25,339	7,250	16,2
85	63.6	28,269	7.2	11.4	3.5	34.0	33.1	14.0	16,625	25,480	7,356	16,5
986	64.5	29,458	7.0	10.9	3.6	34.6	32.4	13.6	17,114	25,894	7,610	16,8
HITE							i					
970	46.5	28,904	3.7 3.8	8.0 7.9	1.1 1.2	25.0 26.5	17.5 17.8	9.9 9.9	19,797 19,593	26,676 26,808	6,399 6,628	15,6 15,6
971 972	47.6 48.5	28,893 30,269	3.4	7.1	1.1	24.3	16.2	9.0	20,480	28,615	6,856	16,1
773	48.9	31,076	3.2	6.6	1.2	24.5	15.1	8.4	20,856	29,114	6,965	16,2
774 <sup>3</sup>	49.4	29,812	3.4	6.8	1.3	24.8	15.7	8.6	19,686	27,568	6,930	16,0
775	49.9	29,067	3.8	7.7	1.4	25.9	17.8	9.7	18,946	26,959	6,967	15,
776	50.1	29,926	3.6	7.1	1.4	25.2	16.7	9.1	19,140	27,489	6,946	15,
977 978	50.5 50.9	30,289 30,870	3.5 3.5	7.0 6.9	1.4 1.4	24.0 23.5	16.4 16.3	8.9 8.7	19,185 19,2 <b>4</b> 9	27,824 27,496	7,239 6,919	16,0 16,3
979 <sup>4</sup>	52.2	30,875	3.6	6.9	1.4	22.3	17.2	9.0	18,588	27,166	6,636	. 16,0
80	52.7	29,146	4.2	8.0	1.6	25.7	19.7	10.2	17,735	26,240	6,583	15,
81	53.3	28,352	4.7	8.8	1.8	27.4	21.6	11.1	17,235	25,532	6,654	15,
982	53.4	27,948	5.1	9.6	1.8	27.9	23.5	12.0	16,753	25,254	6,778	15,
983³ 984	53.9   54.4	28,435 29,226	5.2 4.9	9.7 9.1	1.9 1.9	28.3 27.1	24.0 23.0	12.1 11.5	16,975 17,383	25,430 26,207	7,172 7,335	16,1 16,4
985	55.0	29,713	5.0	9.1	2.0	27.4	22.9	11.4	17,440	26,187	7,499	16,
986	55.7	30,809	4.8	8.6	2.0	28.2	22.2	11.0	18,060	26,617	7,760	17,
LACK			I.									
770	4.9	17,730		29.5	.8	54.3	7.5	33.5	11,693	18,171	5,825	12,
971 972	5.2 5.3	17,435 17,990	1.5 1.5	28.8 29.0	.9 1.0	53.5 53.3	7. <b>4</b> 7.7	32.5 33.3	11,571	18,331 19,324	5,807 6, <del>4</del> 06	13, 13,
772 973	5.4 5.4	17,935	1.5	28.1	1.0	52.7	7.4	31.4	12,615	19,623	6,287	13,
774 <sup>3</sup>	5.5	17,801	1.5	26.9	1.0	52.2	7.2	30.3	12,198	19,355	6,257	14,
775	5.6	17,885	1.5	27.1	1.0	50.1	7.5	31.3	11,327	20,063	6,330	15,
76	5.8	17,801	1.6	27.9	1.1	52.2	7.6	31.1	11,524	19,689	6,545	15,
77	5.8	17,303	1.6	28.2	1.2	51.0	7.7	31.3	11,385	19,183	6,251	15,
978 979 <sup>4</sup>	5.9 6.2	18,284 17,483	1.6 1.7	27.5 27.8	1.2 1.2	50.6 49.4	7.6 8.1	30.6 31.0	11,531 11,506	21,059 19,579	6,230 6,039	15, 14,
80	6.3	16,684	1.8	28.9	1.3	49.4	8.6	32.5	10,657	18,463	6,094	14
81	6.4	15,993	2.0	30.8	1.4	52.9	9.2	34.2	10,249	18,064	5,911	13,
982	6.5	15,447	2.2	33.0	1.5	56.2	9.7	35.6	10,039	17,936	5,978	14,
983	6.7	16,025	2.2		1.5	53.7	9.9	35.7	9,927	18,131	6,129	14,
984 985	6.8 6.9	16,2 <b>8</b> 9 17,109	2.1 2.0	30.9 28.7	1.5 1.5	51.7 50.5	9.5 8.9	33.8 31.3	9,973 10,975	17,885 18,317	6,507 6,398	. 14, 14,
. 7 00	0.7	17,107	4.0	40./								

The term "family" refers to a group of two or more persons related by blood, marriage, or adoption and residing together, all such persons are considered members of the same family. Beginning 1979, based on householder concept and restricted to primary families.

Prior to 1979, data are for persons 14 years and over.

Based on revised methodology, comparable with succeeding years.

Based on 1980 census population controls: comparable with succeeding years.

Note: The poverty level is based on the poverty index adopted by a Federal interagency committee in 1969. That index reflected different consumption requirements for tamilies based on size and composition, sex and age of family householder, and farm-nonfarm residence. Minor revisions implemented in 1981 eliminated variations in the restolate based on two of these variables, farm-nonfarm residence and sex of householder. The poverty thresholds are updated every year to reflect changes in the constant of the poverty in the pove price index.

### PRODUCTIVITY AND RELATED DATA, BUSINESS SECTOR, 1947-87

(1977 = 100)

	Output per hour of all persons				Hours of all Compensation per I persons <sup>2</sup> hour <sup>3</sup>			mpensation hour <sup>4</sup>	Unit labor costs		Implicit price deflator <sup>5</sup>			
Year	Busi- ness sector	Nonfarm business sector	Busi- ness sector	Nontarm business sector	Busi- ness sector	Nonfarm business sector	Busi- ness sector	Nonfarm business sector	Busi- ness sector	Nonfarm business sector	Busi- ness sector	Nonfarm business sector	Busi- ness sector	Nonfarm business sector
1947 1948 1949	44.9 47.2 47.7	51.4 53.3 54.2	36.2 38.3 37.4	35.2 37.2 36.4	80.6 81.2 78.5	68.6 69.8 67.0	16.6 18.1 18.4	18.0 19.6 20.2	45.2 45.5 46.7	48.9 49.3 51.3	37.0 38.3 38.5	35.1 36.7 37.2	35.5 38.0 37.8	34.0 36.4 36.9
1950	51.7	57.7	41.0	39.9	79.3	69.1	19.7	21.4	49.6	53.9	38.1	37.1	38.4	37.5
1951	53.8	59.4	43.9	43.0	81.6	72.3	21.6	23.3	50.5	54.3	40.3	39.2	40.8	39.6
1952	55.4	60.7	45.3	44.4	81.7	73.0	23.0	24.6	52.5	56.1	41.5	40.5	41.4	40.4
1953 1954	57.5 58.4	62.1 63.0	47.4 46.5	46.4 45.5	82.5 79.7	74.8 72.2	24.6 25.3	26.0 26.8	55.6 57.2	58.8	42.7	41.9	41.7	41.1
1955	60.1	64.8	49.7	48.7	82.7	75.1	25.3 26.0	20.6 27.8	57.2 58.8	60.5 62.9	43.4 43.2	42.6 42.9	42.2 43.2	41.8 43.1
1956	60.9	65.2	51.1	50.2	83.9	77.0	27.7	29.5	61.8	65.8	45.5	45.3	44.6	44.5
1957	62.5	66.5	51.7	50.9	82.7	76.6	29.5	31.2	63.6	67.2	47.2	47.0	46.2	46.1
1958	64.4	68.0	50.7	49.8	78.8	73.3	30.9	32.5	64.8	68.1	48.0	47.7	46.9	46.6
1959	66.5	70.2	54.4	53.7	81.8	76.4	32.2	33.8	67.1	70.3	48.5	48.2	47.8	47.8
1960	67.6	71.0	55.4	54.6	81.9	76.9	33.6	35.3	68.9	72.3	49.7	49.7	48.5	48.5
1961	70.0	73.2	56.5	55.7	80.7	76.0	34.9	36.5	70.8	73.8	49.9	49.8	48.8	48.8
1962	72.5	75.6	59.4	58.7	81.9	77.6	36.6	38.0	<b>73</b> .2	76.0	50.4	50.2	49.7	49.7
1963	75.4	78.3	62.1	61.5	82.4	78.5	37.9	39.3	<b>75</b> .1	77.7	50.3	50.2	50.2	50.2
1964	78.7	81.4	65.9	65.4	83.7	80.3	39.9	41.1	<b>78</b> .0	80.3	50.7	50.5	50.7	50.8
1965 1966	81.0 83.2	83.4 85.2	70.0 73.6	69.5 73.4	86.4 88.5	83.3 86.2	41.5 44.3	42.5 45.0	<b>79</b> .6 8 <b>2</b> .7	81.6 84.0	51.2 53.3	50.9 52.8	51.9 53.6	51.9 53.5
1967	85.5	87.1	75.6	75. <del>1</del> 75.3	88.5	86.4	46.7	47.5	84.8	86.2	54.7	. 54.5	5 <b>4</b> .9	55.0
1968	87.8	89.4	78.9	78.8	89.9	88.1	50.4	51.1	<b>87</b> .8	89.0	57.4	57.1	57.5	57.5
1969	87.8	89.0	81.1	80.9	92.3	90.9	53.9	54.4	89.1	90.0	61.4	61.2	60.4	60.4
1970	88.4	89.3	80.3	80.0	90.8	89.7	57.8	58.2	90.2	90.8	65.4	65.2	63.2	63.4
1971	91.3	91.9	82.5	82.2	90.4	89.4	61.6	62.0	92.1	92.8	67.4	67.4	66.4	66.6
1972	94.1	94.7	87.7	87.5	93.2	92.3	65.5	66.0	94.9	95.7	69.6	69.7	69.0	69.0
1973	95.9	96.4	92.9	92.9	96.9	96.3	70.9	71.2	96.7	97.1	73.9	73.9	73.4	72.3
1974	93.9	94.3	91.3	91.2	97.3	96.7	77.6	78.0	95.4	95.9	82.7	82.7	80.5	79.7
1975	95.7	96.0	89.4	89.1	93.4	92.8	85.2	85.6	<b>95</b> .9	96.4	89.0	89.2	88.7	88.3
1976	98.3	98.5	94.5	94.4 100.0	96.1 100.0	95.9 100.0	92. <b>8</b> 100.0	92.8 100.0	<b>98</b> .7 <b>100</b> .0	98.8 100.0	94.3 100.0	94.3 100.0	94.0 100.0	93.8 100.0
1977 1978	100.0 100.8	100.0 100.8	100.0 105.8	106.0	100.0	105.0	108.5	108.6	100.8	100.0	100.6	100.0	100.0	107.0
1979	99.6	99.3	107.9	107.9	108.3	108.7	119.1	118.9	99.4	99.2	119.5	119.7	117.0	116.5
			1						96.7			132.9	127.6	127.8
1980 1981	99.3 100.7	98.8 99.8	106.7 108.9	106.7 108.5	107.5 108.2	108.0 108.7	131.5 143.7	131.3 143.6	95.7	96.6 95.7	132.5 142.7	132.9	139.8	140.3
1982	100.7	99.0	105.5	106.5	105.2	105.7	154.9	154.8	97.3	97.2	154.5	156.0	148.1	140.3
1983	103.0	102.5	109.9	110.1	106.7	107.5	161.5	161.5	98.2	98.2	156.7	157.6	153.0	154.3
1984	105.6	104.6	119.2	119.2	112.9	114.0	168.0	167.8	98.0	97.9	159.1	160.4	158.2	159.0
1985	107.5	105.8	123.9	123.6	115.2	116.8	175.9	175.2	99.1	98.7	163.6	165.6	162.4	164.1
1986	109.5	107.5	128.0	127.5	116.9	118.6	182.8	182.0	101.0	100.6	166.9	169.3	165.8	167.8
1987	110.5	108.4	132.3	131.9	119.7	121.6	188.2	187.1	100.3	99.8	170.2	172.6	170.0	171.8

Source: Department of Labor, Bureau of Labor Statistics, in Economic Report of the President, 1988

Output refers to gross domestic product originating in the sector in 1982 dollars

2 Hours of all persons engaged in the sector, including hours of proprietors and unpaid tamily workers. Estimates based primarily on establishment data

3 Wages and salaries of employees plus employers' contributions for social insurance and private benefit plans. Also includes an estimate of wages, salaries, and supplemental payments for the self-employed.

4 Hourly compensation divided by the consumer price index for all urban consumers.

5 Current-dollar gross domestic product divided by constant-dollar gross domestic product

### CORPORATE PROFITS WITH INVENTORY VALUATION AND CAPITAL CONSUMPTION ADJUSTMENTS, 1929-87

(Billions of dollars)

		(Dimons	or dolla	115)	
			inver	porate profits of tory valuation according to the consumption according to the construction according to the con	n and capital
Year	Corporate profits with inventory valuation and capital consumption adjustments	Corporate profits tax liability	Total	Dividends	Undistributed profits with inventory valuation and capital consumption adjustments
1929	9.6	1.4	8.2	5.8	2.4
1933	-1.5	.5	   -2.1	2.0	<b>-4.1</b>
1939	5.5	1.4	4.0	3.8	.3
1940	8.8	2.8	5.9	4.0	1.9
1941 1942	14.3 19.7	7.6 11.4	6.7 8.3	4.4 4.3	2.3 4.0
1943	24.0	14.1	9.9	4.4	5.5
1944	24.2	12.9	11.2	4.6	6.6
1945 1946	19.7 17.2	10.7 9.1	9.0 8.0	4.6 5.6	4.4 2.5
1947	22.9	11.3	11.7	6.3	5.4
1948	30.3	12.4	17.8	7.0	10.8
1949	28.0	10.2	17.8	7.2	10.6
1950 1951	34.9 39.9	17.9 22.6	17.0 17.3	8.8 8.5	8.2 8.8
1952	25.5	19.4	18.1	8.5	9.6
1953	37.7	20.3	17.4	8.8	8.6
1954	36.6 47.1	17.6	19.0	9.1	9.8
1955 1956	47.1 45.7	22.0 22.0	25.1 23.8	10.3 11.1	14.8 12.7
1957	45.3	21.4	23.8	11.5	12.3
1958	40.3	19.0	21.4	11.3	10.1
1959	51.4	23.6	27.8	12.2	15.6
1960 1961	49.5 50.3	22.7 22.8	26.8 27.6	12.9 13.3	13.9 14.2
1962	58.3	24.0	34.3	14.4	19.9
1963	63.6	26.2	37.4	15.5	21.9
1964 1965	70.7 81.3	28.0 30.9	42.7 50.4	17.3 19.1	25.3 31.3
1966	86.6		52.9	19.4	33.5
1967	84.1	32.7	51.4	20.2	31.2
1968	90.7	39.4	51.4	22.0	29.4
1969 1970	87.4 74.7	39.7 34.4	47.7 40.3	22.5 22.5	25.2 17.9
1971	87.1	37.7	49.3	22.9	26.4
1972	100.7	41.9	58.8	24.4	34.4
1973	113.3	49.3 51.8	64.1	27.0	37.0
1974 1975	101.7 117.6	50.9	49.9 66.7	29.7 29.6	20.2 37.1
1976	145.2	64.2	81.0	34.6	46.4
1977	174.8	73.0	101.8	39.5	62.3
1978 1979	197.2 200.1	83.5 88.0	113.7 112.1	44.7 50.1	69.0 62.0
1980	177.2	84.8	92.4	54.7	37.7
1981	188.0	81.1	106.8	63.6	43.2
1982	150.0	63.1	86.9	66.9	20.0
1983 1984	213.7 266.9	77.2 93.9	136.5 173.0	71.5 79.0	65.0
1985	200.9 277.6	93.9 96.7	180.9	81.3	94.0 99.6
1986	284.4	105.0	179.4	86.8	92.6
1987	305.3	137.5	167.8	93.8	74.0
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Source: Department of Commerce, Bureau of Economic Analysis, in *Economic Report* of the President, 1988.

### BUSINESS FORMATION AND BUSINESS FAILURES. 1945-87

			1743-0/		
				Business to	ailures¹
Year	Index of net business formation (1967 = 100)	New business incorporations (number)	Business failure rate <sup>2</sup>	Number of failures	Amount of current liabilities (millions of dollars)
1945 1946 1947 1948 1949			4.2 5.2 14.3 20.4 34.4	809 1,129 3,474 5,250 9,246	30.2 67.3 204.6 234.6 308.1
1950 1951 1952 1953 1954 1955 1956 1957 1958 1959	87.7 86.7 90.8 89.7 88.8 96.6 94.6 90.3 90.2 97.9	93,092 83,778 92,946 102,706 117,411 139,915 141,163 137,112 150,781 193,067	34.3 30.7 28.7 33.2 42.0 41.6 48.0 51.7 55.9 51.8	9,162 8,058 7,611 8,862 11,086 10,969 12,686 13,739 14,964 14,053	248.3 259.5 283.3 394.2 462.6 449.4 562.7 615.3 728.3 692.8
1960 1961 1962 1963 1964 1965 1966 1967 1968 1969	94.5 90.8 92.6 94.4 98.2 99.8 99.3 100.0 108.3	182,713 181,535 182,057 186,404 197,724 203,897 200,010 206,569 233,635	57.0 64.4 60.8 56.3 53.2 53.3 51.6 49.0 38.6	15,445 17,075 15,782 14,374 13,501 13,514 13,061 12,364 9,636	938.6 1.090.1 1,213.6 1,352.6 1,329.2 1,321.7 1,385.7 1,265.2 941.0
1970 1971 1972 1973 1974 1975 1976 1977 1978	115.8 108.8 111.1 119.3 119.1 113.2 109.9 120.4 130.8 138.1 138.3	274,267 264,209 287,577 316,601 329,358 319,149 326,345 375,766 436,170 478,019 524,565	37.3 43.8 41.7 38.3 36.4 38.4 42.6 34.8 28.4 23.9 27.8	9,154 10,748 10,326 9,566 9,345 9,915 11,432 9,628 7,919 6,619 7,564	1,142.1 1,887.8 1,916.9 2,000.2 2,298.6 3,053.1 4,380.2 3,011.3 3,095.3 2,656.0 2,667.4
1980 1981 1982 1983 1984 1985 1986 1987	129.9 124.8 116.4 117.5 121.3 120.9 120.4 121.4	533,520 581,242 566,942 600,400 634,991 662,047 702,601	42.1 61.3 89.0 110.0 107.0 115.0 120.0	11,742 16,794 24,908 31,334 52,078 57,253 61,616 61,209	4,635.1 6,955.2 15,610.8 16,072.9 29,268.6 36,808.8 44,724.0 36,337.1

<sup>&</sup>lt;sup>1</sup>Commercial and industrial failures only through 1983, excluding failures of banks, railroads, real estate, insurance, holding, and financial companies, steamship lines, travel agencies, etc.

Sources: Department of Commerce (Bureau of Economic Analysis) and The Dun & Bradstreet Corporation, in Economic Report of the President, 1988.

<sup>&</sup>lt;sup>2</sup>Failure rate per 10,000 listed enterprises.

### U.S. INTERNATIONAL TRANSACTIONS, 1946-86

(Millions of dollars)

:		Merchandise <sup>1</sup>	2	Inve	Investment income			Net travel and transpor- tation	Other serv-ices,	Balance on goods and	Remit- tances, pensions, and other unilateral	Balance on current ac-
Year	Exports	Imports	Net	Receipts	Payments	Net	tions	receipts	net <sup>3</sup>	services. 4	transfers'	count <sup>1.4</sup>
1946	11,764	- 5,067	6,697	772	-212	560	-493	733	310	7,807	- 2,922	4,885
1947	16,097	<b>-5,973</b>	10,124	1,102	- 245	857	<b>-455</b>	946	145		- 2,625	8,992
1948	13,265	<b>- 7,557</b>	5,708	1,921	<b>-437</b>	1,484	_ <b>799</b>	374	175	6,942	-4,525	2,417
1949	12,213	<b>−6,874</b>	5,339	1.831	- <b>476</b>	1,355	- 621	230	208	6,511	-5,638	873
1950	10,203	-9,081	1,122	2,068	- 559	1,509	- 576	120	242	2,177	~4,017	-1,840
1951	14,243	-11,176	3,067	2,633	-583	2,050	-1,270	298	254	4,399	-3,515	884
1952	13,449	-10,838	2,611	2,751	- 555	2,196	- 2,054	83	309	3,145	- 2,531	614
1953	12,412	-10,975	1,437	2,736	624	2,112	2,423	238	307	1,195	-2,481	- 1 286
1954	12,929	-10,353	2,576	2,929	-582	2,347	2,460	- 269	305	2,499	-2,280	219
1955	14,424	-11,527	2,897	3,406	-676	2,730	-2,701	- 297	299	2,928	-2,498	430
1956	17,556	-12, <b>803</b>	4,753	3,837	- 735	3,102	-2,788	-361	447	5,153	-2,423	2,730
1957	19,562	-13,291	6,271	4,180	- <b>796</b>	3,384	- 2,841	189	482	7,107	-2,3 <b>4</b> 5	4,762
1958 1959	16,414	-12,952 15,310	3,462	3,790	-825 -1,061	2,965	-3,135 -2,805	- 633	486	3,145	−2,361 −2,448	784
	16,458		1,148	4,132		3,071		-821	573	1,166		-1,282
1960	19,650	14,758	4,892	4,616	-1,237	3,379	<b>- 2,752</b>	-964	638	5,191	-2,367	2,824
1961	20,108	-14,537	5,571	4,999	-1,245	3,754	- 2,596	978	732	6,484	-2,662	3,822
1962	20,781	16,260	4,521	5,618	-1,324	4,294	-2,449	-1,152	911	6,127	-2,740	3,387
1963	22,272	-17,048	5,224	6,157	-1,561	4,596	- 2,304	- 1,309	1,037	7,244	-2,831	4,414
1964	25,501	-18,700	6,801	6,824	- 1,784	5,040	-2,133	-1,146	1,161	9,724	-2, <b>90</b> 1	6,823
1965	26,461	-21,510	4,951	7,437	2,088	5,349	- 2,122	-1,280	1,480	8,378	-2,948	5,431
1966	29,310	-25,493	3,817	7,528	-2,481	5,047	- 2,935	-1,331	1,496	6,095 5,838	-3,06 <b>4</b>	3,031
1967	30,666	- 26,866 22,001	3,800 635	8,020 9,368	- 2,747	5,273	-3,226	-1.750	1,742		-3,255	2,583
1968 1969	33,626 36,414	32,991 35,807	607	10,912	-3,378 4,869	5,990 6,043	- 3,143 - 3,328	-1,548 -1,763	1,759 1,96 <b>4</b>	3,693 3,524	−3,082 - 3,125	611 399
					•							=
1970	42,469	- 39,866	2,603	11,747	-5,516	6,231	- 3,354	-2,038	2,329	5,773	~3,443	2,331
1971	43,319	-45,579	- 2,260	12,707	-5,436	7,271	-2,893	-2,345	2,649	2,423	_3,856	-1,433
1972	49,381	- 55,797	-6,416	14,764	- 6,572 9,655	8,192	- 3,420 - 2,070	-3,063	2,965	-1,742	-4,052 -4,103	-5,795 7,140
1973 197 <b>4</b>	71,410 98,306	-70,499 -103,811	911 - 5.505	21,808 27,587	9,033 12,08 <b>4</b>	12,153 15,503	- 2,070 1,653	-3,158 -3,184	3,406 4,231	11,244 9,392	-4,103 -7,431	1,962
1974	107,088	-103,811 <sub>1</sub> -98,185	8,903	25,351	-12,084 -12,564	12,787	746	-3,164 -2,812	4,853	22,984	-7,431 -4,868	18,116
1975	114,745	- 124,228	- 9,483	29,286	-13,311	15,975	559	-2,512 -2,558	5,027	9,521	-5,31 <b>4</b>	4,207
1977	120,816	- 151,907	-31.091	32,179	- 14,217	17,962	1,528	-2,556 -3,565	5,679	-9,488	-5,023	-14,511
1978	142,054	-176,001	-33,9 <b>4</b> 7	42,245	-21,680	20,565	621	-3,573	6,459	-9,875	-5,552	-15,427
1979	184,473	-212,009	-27,536	64,132	- 32,960	31,172	-1,778	-2,935	6,214	5,138	-6,128	-991
	1						-2,237	- 997	7,793	9,466	-7,593	1,873
1980	224,269	249,749	- 25,480 - 27,978	72,506 86,411	- <b>42</b> ,120 52,329	30,386 34,082	-2,237 -1,183	144	9.278	9,400 14,344	- 7,593 - 7,460	6.884
1981 1982	237,085 211,198	- 265,063   - 247,642	-27,978 -36,444	83,549	- 52,329 - <b>54,883</b>	28,666	-1,163 -27 <b>4</b>	- 992	9,278	14,344 278	- 7,460 - 8,956	- 8,679
1982	201,820	-247,042   -268,900	- 50, <del>444</del> - 67,080	77,251	-54,665 -52,376	24,875	- 2/4 - 243	- 4,227	9,908	- 36,766	- 9,480	-46,246
1983	201,820	-200,900 -332,422	-07,000 -112,522	85,910	-52,376 -67,419	18,491	-1,942	- <b>4,227</b> - <b>8,604</b>	9,741	- 94,835	-12,178	107,013
1985	215,935	-338,083	-112,322 $-122,148$	88,299	-62,901	25,398	-3,339	-10,866	9,861	-101.093	-15,301	- 116,393
1986	224,361	-368,700 \	-144,339	88,209	-67,365	20,844	- 3,662	-9,903	11,368	-125,694	-15,658	-141,352
. 700	. 224,001							,,,,,,				·

Excludes military

Source. Economic Report of the President, 1988

Excludes findingly

Adjusted from Census data for differences in valuation, coverage, and timing.

Fees and royallies from U.S. direct investments abroad or from foreign direct investments in the United States are excluded from investment income and included in other

services, net

Aln concept, balance on goods and services is equal to net exports and imports in the national income and product accounts (and the sum of balance on current account and allocations of special drawing rights is equal to net foreign investment in the accounts), although the series differ because of different handling of certain items (gold, extraordinary military shipments, etc.), revisions, etc.

# Preface

The world isn't really getting any smaller. But it does seem that the rest of the world is getting closer. Five years ago, neither the trade deficit nor the value of the yen grabbed any headlines. Now the yen value is a staple of the daily news, and the Commerce Department's monthly report on the trade deficit is a climactic event that sends reporters and stock traders scurrying to their computers. This is a new way of life. Only a few short years ago, things were different. Headline stories focused on federal budget deficits and the financial markets were riveted to weekly changes in the domestic money supply. Few people worried about foreign markets, trade deficits, or exchange rates.

We now realize that the rest of the world cannot be dismissed so lightly. The performance of U.S. markets is profoundly influenced by external forces. And the rest of the world is directly affected by changes in U.S. output, consumption, and financial markets. Economic growth and advanced technology have increased both the extent and visibility of our global interdependence. The foremost objective of this fourth edition is to incorporate this new international awareness into *The Micro Economy Today*.

### INTERNATIONAL OUTLOOK

The global perspective of the fourth edition differs markedly from any other principles text on the market in very visible ways.

### World Views

The most obvious references to the international economy are the new World View boxes. These boxes supplement the core text material with events that illustrate the global nature of economic performance and policies. The first discussion of supply and demand, for example, includes World Views on government-set prices in Poland (p. 52) and the use of supply and demand to clear the kitchen in a Parisian restaurant (p. 50). The warming of the atmosphere due to air pollution—the so-called

greenhouse effect—provides a superb illustration of global externalities (p. 334). Other micro World Views include European farm subsidies (p. 312), restrictions on smoking (p. 96), deregulation of London's financial markets (p. 294), and contestable markets (p. 225). Altogether, there are twenty-three World Views, each labeled with a distinctive logo and set against a color-tinted background. The World Views provide a constant reminder of the global environment in which the U.S. economy functions. By themselves, however, they do not *teach* any new principles.

### International Coverage

To assure that the basic principles of international relations are communicated, the traditional chapters of the international sequence have been improved as well. Chapter 21 provides more detail on trade flows and bilateral balances, while Chapter 22 offers a new discussion on the balance of payments. Together, the World Views and new discussions ensure that students cannot read *The Micro Economy Today* without gaining an awareness of the global dimensions of U.S. economic performance.

### GOVERNMENT FAILURE VS. MARKET FAILURE

Chapter 3 has been rewritten to provide a broader perspective on the purpose and limitations of government intervention. The chapter begins with the various macro and micro failures that justify government intervention. This discussion of market failures sets the framework for describing the actual behavior of federal, state, and local governments. The chapter ends with consideration of potential gaps between theory and reality. Government intervention might not achieve its objectives and could even worsen the economic outcomes. Indeed, a majority of taxpayers appears to believe such "government failure" is likely. The concluding section of Chapter 3 examines some of the reasons—including public choice theory—why government intervention may not live up to its potential.

### MICRO REORGANIZATION

The core theory chapters in the micro section have been subjected to a lot of editing. This includes a reorganization of several topics. Chapter 2 has been expanded to include a discussion of shifts in demand and a whole new section on supply. The description of business firms and discussion of growth sources have been moved out of Chapter 5, leaving more room for basic discussions of economic cost.

The introduction to imperfectly competitive firms (and their downward-sloping demand curves) has been deleted from Chapter 6. In its place there is a longer discussion of supply determinants and a new section on supply shifts. The same kind of change has been made in Chapter 7: the introduction to monopoly has been deleted in favor of more discussion of short- and long-run competitive equilibrium. This new organization is less confusing and offers a more solid foundation for the micro sequence.

The chapters on regulation and firm productivity have also been reversed. The discussion of regulatory intervention (Chapter 11) now follows immediately after the core sequence on the theory of the firm. Chapter 14's emphasis on internal productivity and management is now positioned to provide a smoother transition from production theory to labor theory.

The functional distribution of income now serves as an introduction to "Rent, Interest, and Profit" (Chapter 18). This frees up space in Chapter 19, "Taxes: Equity vs. Efficiency," to cover tax incidence in greater detail. Chapter 19 also uses the Tax Reform Act of 1986 to highlight basic trade-offs between equity and efficiency.

### MORE EXPLICIT THEORY

The theoretical content of *The Micro Economy Today* has been tightened by eliminating some of the redundancies pointed out by adopters and reviewers of the earlier edition. The theory, too, has been made more explicit through the addition of equations and formulas.

Chapter-opening questions have been added to focus attention on key issues and concepts. In addition, more problems have been added to the chapter-end material. These problems should improve students' critical thinking skills by integrating economic concepts with examples that require calculation and graphical use of data. There is now a close integration between the problems at the end of every chapter and the problems that appear in the supplementary package.

### **ENDURING FEATURES**

The new ingredients of *The Micro Economy Today* improve on a formula that has been proven to be popular. The distinctive elements of that formula include:

### Real-World Focus

All principles texts on the market today claim to emphasize "real-world" examples and issues. The Micro Economy Today does more than pay lip service to this claim. To attain a credible real-world focus, one must begin with empirical examples, blend reality into the text, offer repeated illustrations of concepts and theories, and offer insights into policy issues. The Micro Economy Today does this in every chapter. There is a constant interplay between theoretical principles and real-world events. This interplay makes economic principles look "alive"—something worth learning about. The motivational benefit of this real-world focus has been proven repeatedly.

### Theory vs. Reality

The real-world focus of *The Micro Economy Today* generates a demand to explain the gap between real-world performance and theoretical potential. The fourth edition again responds to this demand. Nowhere is this more evident than in Chapter 10 ("Market Power in the U.S. Economy"). Chapter 10 serves several functions. First, it provides a detailed "who's who" of firms with power in specific product markets (rather than broad industry groups). Then, an international perspective on the size and power of these firms is provided. Finally, the behavior of specific firms is described and assessed.

### **Timely Topics**

The Micro Economy Today continues to offer the most complete coverage of the issues and events that are in the journals and newspapers today. Among the topics introduced in this edition are:

- smoking restrictions and demand theory (Chapter 4)
- the economic cost of homework (Chapter 5)
- 1986 Tax Reform Act (Chapters 6 and 19)
- contestable markets (Chapters 8, 9, 10, and 11)
- the price of brand loyalty (Chapter 9)
- London's "Big Bang" (Chapter 11)
- Farm Security Act of 1985 (Chapter 12)

- the greenhouse effect (Chapter 13)
- corporate control (Chapter 14)
- elasticity of labor supply (Chapter 15)
- starting salaries for lawyers and MBAs (Chapter 16)
- 1987 auto and football strikes (Chapter 17)
- Workfare and EDfare reforms (Chapter 20)
- the Uruguay round of GATT negotiations (Chapter 21)
- balance of payments (Chapter 22)

### CAREFUL PEDAGOGY

The timely topics, real-world illustrations, and lively style of *The Micro Economy Today* are all designed to make economics more interesting to the average student. Motivating students to learn is not enough, however. A text must also "teach" basic principles. This demands careful, clear development of basic principles, reinforced with a variety of learning aids.

### In-Text Learning Aids

Chapter Preview Each chapter begins with a narrative introduction to the content and purpose of the chapter. Basic questions to be answered are included in each preview and highlighted with colored bullets (e.g., p. 5).

RUNNING GLOSSARY Definitions of key terms are provided in the margins to facilitate retention and quick review. Definitions are repeated in successive chapters where they are relevant, in recognition of the fact that students do not always remember basic terms after only one "lesson." All of these terms are compiled into a complete glossary, with chapter references, at the end of the book.

FULLY ANNOTATED GRAPHS AND TABLES All graphs and tables in the text are accompanied by self-contained captions. These reinforce the in-text discussions and facilitate quick review.

SYNCHRONIZED TABLES AND GRAPHS Students often have difficulty relating graphs and tables. To help them, contents of related schedules and graphs are explicitly synchronized with the aid of labeled rows (in schedules) and dots (on graphs). The demand schedule and curve in Chapter 2 illustrate this feature.

EXPLICIT FORMULAS The fourth edition makes key formulas more explicit. Basic equations are set off in the text on a separate line and highlighted in color. (See p. 26 for an example.)

In the News The real-world emphasis of *The Micro Economy Today* is reinforced with brief news clippings, public opinion polls, and excerpts from journals. In the News boxes, with a distinctive logo, clearly distinguish these examples from the flow of the basic text. Each news box includes a key-term descriptor to relate it to core concepts.

World Views The World View boxes offer similar illustrations, drawn from the international economy. These examples are set apart in shaded boxes with a distinctive logo and key-term descriptor. (See p. 50 for an example.)

Policy Implications Every theory chapter contains a brief discussion of a specific policy implication that reinforces basic principles.

NARRATIVE SUMMARIES Chapter summaries highlight basic points and principles in brief, sequenced paragraphs.

KEY-TERM REVIEW Each chapter ends with a list of key terms for quick review. These lists include all terms in the running glossary of the chapter.

DISCUSSION QUESTIONS Four or five discussion questions are provided at the end of each chapter for student review, class discussion, or homework assignments.

NUMERICAL AND GRAPH PROBLEMS Additional problems, often using graphs, have been added to the end of each chapter. These test the student's ability to solve typical exam-type problems. Answers to the problems are in the *Instructor's Resource Manual*.

### A COMPLETE TEACHING AND LEARNING PACKAGE

The Micro Economy Today continues to be guided by two maxims. First is the simple proposition that you can't teach someone until you get his/her attention. The travails of the fictional ABC Company trying to wring profits from widget production rarely rivet anyone's attention, but the real-life stories in The Micro Economy Today will spark student interest.

The second guiding maxim is that the text has got to get it right the first time. Painstaking efforts are made to

keep *The Micro Economy Today* error-free, from beginning to end. The dedication of a single author also assures consistency of style, level, and approach throughout the text.

### **PAPERBACKS**

The Economy Today is again available in paperback splits. The macro half contains Chapters 1–18 and 36–39. The micro half contains Chapters 1–3 and 19–37.

### STUDENT LEARNING AIDS

### Study Guide

There are several supplements available to accompany the text itself. From the student's perspective, the most important of the supplements is the *Study Guide*, prepared by Professors Lawrence Ziegler at the University of Texas (Arlington) and Michael Tansey at Rockhurst College. There is a full-text *Study Guide* and, for the first time, macro and micro versions are also available. Each chapter of the *Study Guide* contains these features:

QUICK REVIEW Key points in the text chapter are restated at the beginning of each Study Guide chapter. The reviews are parallel to and reinforce the chapter summaries provided in the text.

LEARNING OBJECTIVES The salient lessons of the text chapters are noted at the outset of each *Study Guide* chapter. These objectives focus the student's study and help to ensure that key points will not be overlooked. The objectives are keyed to the exercises in the *Study Guide* to help reinforce learning.

KEY-TERM REVIEW Early in each chapter the students are asked to match definitions with key terms. This relatively simple exercise is designed to refresh the student's memory and provide a basis for subsequent exercises.

TRUE-FALSE QUESTIONS Twenty or so true-false questions are provided in each chapter. These questions have been class tested to ensure their effectiveness in highlighting basic principles.

MULTIPLE-CHOICE QUESTIONS Approximately fifteen multiple-choice questions per chapter are provided. These questions allow only one correct answer and also focus on basic principles.

PROBLEMS AND APPLICATIONS There are more than forty exercises in the Study Guide, most of which stress current issues and events.

MEDIA ASSIGNMENTS New to this edition are media assignments that require the student to find an example from the media to illustrate an economic concept.

COMMON ERRORS In each chapter of the Study Guide, errors that students frequently make are identified. The bases for those errors are then explained, along with the correct principles. This unique feature is very effective in helping students discover their own mistakes.

Answers Answers to all problems, exercises, and questions are provided at the end of each chapter. Difficult problems have annotated answers. These answers make the Study Guide self-contained, thus allowing students to use it for self-study.

### **Graphics Tutor**

The Graphics Tutor is available in three packages: microeconomics, macroeconomics, and principles of economics. Each package presents tutorials that help students learn fundamental ideas in economics through the extensive and dynamic use of graphs.

### Microcomputer Simulations

Also available is a set of six microcomputer simulations by Rae Jean Goodman of the U.S. Naval Academy: three in macroeconomics (fiscal policy, monetary policy, and budget and deficit analysis) and three in microeconomics (supply and demand, market power—in the microcomputer industry—and price/output decisions).

### INSTRUCTOR TEACHING AIDS

We have tried to make the learning process easier for teachers as well as students. To this end, the teaching package includes several items valued by instructors:

### **News Flashes**

As up-to-date as The Micro Economy Today is, it can't foretell the future. As the future becomes the present, however, Bradley Schiller writes News Flashes describing

major economic events and relating them to specific text references. Four to six *News Flashes* are sent to adopters each year.

### Instructor's Resource Manual

The purpose of the *Instructor's Resource Manual* is to provide a ready source of lecture and discussion material for classroom teaching. To this end, it offers a variety of material, including:

A Brief Introduction The first paragraph or two of each chapter provides an overview of the text chapter. In some chapters, there are suggestions for ways of heightening student interest in the material.

CHAPTER OUTLINE This section provides a complete annotated outline of the text chapter. It can be used for building lectures or it can be distributed to students as a study guide.

QUESTIONS AND DISCUSSION This section repeats the questions from the end of the text chapter and provides answers or guidelines for answers to all questions.

Answers to Problems Here you will find the answers to all problems at the end of the text chapters.

Take a Stand This section takes an issue in the chapter which is illustrated by either an In The News or World View box and poses a controversial question on it. The question is followed by one paragraph in support of the issue and one paragraph in opposition. No resolution of the issue is offered. Take a Stand is intended to motivate classroom discussion or to form the basis for essay-type questions.

MEDIA EXERCISES New to this edition, these tear-out assignments require the student to find an example from the media to illustrate an economic concept. There is approximately one per chapter. After each exercise, professor's notes and lecture opportunities are provided.

Supplementary Resources This final section provides two kinds of information. First, it contains annotated references of videotapes or films relevant to the text chapter. Second, it contains a brief bibliography of articles and books which can be used for additional reading assignments or suggestions for students. These also provide a quick guide of sources to use for expanding lecture materials.

### Test Bank

A thoroughly revised *Test Bank* was prepared for this edition, with more than 50 percent of the questions being new and many others revised. The *Test Bank* includes thirty-nine chapter tests of approximately 65 multiple-choice and true-false questions per chapter, totaling 2,712 questions. There are two levels of questions. The first requires the simple recall of facts, definitions, or basic reasoning. The second level is analytical, requiring more complete comprehension of theory and an understanding of functional relationships. Most of the *Test Bank* questions are cross-referenced directly to the learning objectives in the *Study Guide*.

RANDOM HOUSE TESTMAKER A computerized version of the *Test Bank* is available to adopters. This program enables instructors to view, edit, and test questions to create exams. Questions can be selected based on level of difficulty or learning objective.

CUSTOMIZED TEST Instructors may have tests custom prepared by the publisher by calling the publisher's special test service. Masters prepared from the *Test Bank* will be mailed out within 72 hours.

### Overhead Transparencies

One hundred of the key tables and graphs in the text have been reproduced as two-color overhead transparency acetates. These are made available to users by the publisher.

### **ACKNOWLEDGMENTS**

The Micro Economy Today has benefited greatly from the dedicated and enthusiastic efforts of many individuals, all working toward making the fourth edition the most complete and current teaching package.

### Authors of the Teaching Package

Larry Ziegler (University of Texas, Arlington) and Michael Tansey (Rockhurst College) have set a new standard for student workbooks, thanks to Larry and Mike's strong commitment through all four editions.

John Conant (Indiana State University) inherited a test bank that had been developed and nurtured by Michael Ellis (Texas Wesleyan College) in prior editions.

John brought fresh ideas and countless new questions to the Test Bank. The Instructor's Resource Manual has been significantly revised and thoroughly updated by Donald Pearson (Eastern Michigan University). William Gunther (University of Alabama) enhanced his innovative Computerized Graphics Tutor for this edition. I am dependent on all of these individuals for the success of the teaching and learning package. In addition, these authors also provided me with extensive suggestions on improving the text.

### Reviewers

Users of prior editions and reviewers of this edition's draft have contributed greatly to the quality of the fourth edition. As in earlier editions, Martha Olney (University of Massachusetts) and Walter Johnson (University of Missouri) have done the most to lengthen my workday. The seemingly tireless reviewers who have improved the text include:

Carl Austermiller, Oakland Community College
Dan Barszcz, College of DuPage
Burley Bechdolt, Northern Illinois University
Mark Berger, University of Kentucky
Allen Bradley, San Jacinto College
Kathleen Bromley, Monroe Community College
Curtis Clark, Eastfield College
Bruce Cofer, Louisiana College
John Conant, Indiana State University
Robert Corcoran, Middle Tennessee State University
Paul Estenson, Gustavus Adolphus College
Rudy Fichtenbaum, Wright State University
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