EXTERNAL APPENDICES TO CHAPTER 10

Appendix X-10.1: MERGERS IN "NEW ECONOMY INDUSTRIES"

Most new industries or industries using new technologies have experienced considerable merger activity and it is useful to determine their relative importance in the merger wave of the last 15 years of the century. For purposes of this discussion, the "new economy industries" (NEI) are those industries where very new technologies, economies of scale, or network economies are particularly important. For these reasons, mergers in these NEIs may provide some efficiency gains to the economy as a whole

For any empirical investigation, the most obvious problem is designating which industries can be considered NEIs. From a list of roughly 930 industries, covering the entire private sector (4-digit industries according to the 1992 U.S. standard industrial classification - SIC), Röller and Wey (2001) drew upon their analyses of such industries to select 71; hereafter, their list is designated as the "broad definition." From their list, I chose 21 which I believe most strongly embody NEI characteristics; hereafter, this list is designated as the "narrow definition."Although the selection procedures producing both lists were subjective, the two estimates probably bracket the actual values.

Table X-10.1 presents data on the relative importance of the NEIs in the U.S. and their share of total horizontal mergers. I discuss these results in the text.

Table X-10.1: Mergers and the New Economy Industries (NEI) in the U.S. Private Sector

Panel A: Relative Importance of New Economy Industries, Using a Labor Force Measure, 1997

	Narrow definition of NEI	Broad definition of NEI
Agriculture	0.0%	0.0%
Mining	0.0%	0.0%
Construction	0.0%	0.0%
Manufacturing	2.4%	8.5%
Transportation, communication, utilities	24.9%	24.9%
Wholesale trade	0.0%	5.0%
Retail trade	0.0%	0.3%
Finance, insurance, real estate	24.2%	33.8%
Service industries	2.5%	7.7%
Total	4.3%	8.2%

Panel B: Relative Importance of Horizontal Mergers of New Economy Industries
(As Percent of Total Horizontal Mergers)

	Total number of mergers	Value of recorded mergers	Number of recorded mergers	Total number of mergers	Value of recorded mergers	Number of recorded mergers
	NEI narrowly defined			NEI broadly defined		
Countries of buyer - target						
U.S.- U.S.	27.4%	41.6%	33.7%	37.2%	49.0%	42.1%
U.S. - non U.S.	33.0	32.8	30.9	46.9	35.7	39.4
Non U.S. - U.S.	23.3	56.0	28.7	32.9	59.7	36.0
Non U.S. - non U.S.	13.0	11.8	12.1	25.6	19.6	26.0
Total	19.4	34.8	21.5	31.0	41.6	32.9

Note:

Note: Selection of new economy industries (NEI) from the 4-digit industry list is discussed above. Horizontal mergers are defined solely in terms of the primary SIC codes. Merger data come from the TFSD data that are previously discussed. Employment data come from preliminary results of the 1997 U.S. industrial census [http://www.census.gov/epcd/www/econ97.html], plus an estimate for agriculture from the U.S. Council of Economic Advisers (2000, p. 346).

Appendix X-10.2: CHANGES IN INDUSTRIAL CONCENTRATION, 1992 - 1997

Determining changes in industrial concentration in the 1990s raises some serious difficulties because the Census Bureau provides the concentration data in 1997 using the NAICS nomenclature (North American Industrial Classification System), while it presents the 1992 data in the SIC nomenclature (standard industrial classification). Up to the time of writing, they did not provide statistics using both the old and new nomenclatures, but I could make rough comparisons by following a three step procedure.

1. Using a concordance between NAIPS and SIC (http://www.census.gov/epcd/ec97brdg/) I selected those industries whose definitions did not change in the two systems, arranging each of these by their 1992 SIC number.

2. From a Census website (http://www.census.gov/epcd/www/concentration.html) I drew data for the two years and calculated weighted concentration ratios for the various 3-digit industries. This required the assumption that industrial concentration in those industries for which comparable data were not available changed at the same rate as the weighted average of the available industries. For each year I weighted the industries by the value-added or payroll data for the corresponding year.

3. Using value-added or payroll data for 1992 for the various 3-digit groups (such data were not available for 1997 in the SIC classification), I calculated 2-digit and industrial averages.

Such a procedure, however, worked only for three sectors, namely manufacturing, wholesale trade, and retail trade. For other sectors there was not a sufficient number of industries with unchanged definitions for the two years to make the results very meaningful. The concentration data for 1992 differ from those presented elsewhere [Pryor, 2001] because the weights used for the two and three digit industries are for 1992, rather than for 1972.

Table X-10.2: Industrial Concentration Ratios (SIC Classification) in 1992 and 1997

		1992 4-digit	1992 8-digit	1997 4-digit	1997 8-digit	% coverage of sector
	Total manufacturing	**39.4%**	**51.5%**	**42.0%**	**53.7%**	**27.3%**
20	Food and kindred products	48.1	61.1	42.6	52.0	14.2
21	Tobacco manufacturing	83.7	90.0	89.0	90.4	91.2
22	Textile mill products	36.0	50.4	37.3	52.8	17.6
23	Apparel and other textile products	29.4	39.6	25.7	35.6	2.1
24	Lumber and wood products	21.7	30.1	22.1	30.0	24.6
25	Furniture and fixtures	28.0	38.3	28.5	39.8	28.2
26	Paper and allied products	37.0	53.9	39.5	56.5	3.4
27	Printing and publishing	21.9	31.1	21.8	32.6	3.7
28	Chemicals and allied products	38.4	53.0	39.3	53.2	28.9
29	Petroleum and coal products	30.7	48.7	29.6	48.1	98.6
30	Rubber and misc. plastic products	21.5	30.1	20.8	29.4	38.6
31	Leather and leather products	44.1	60.5	48.6	64.2	73.8
32	Stone, glass, clay products	37.9	49.8	37.2	49.0	52.6
33	Primary metal industries	36.5	53.1	35.9	52.1	36.9
34	Fabricated metal products	25.4	33.6	26.2	36.4	32.2
35	Machinery except electrical	32.3	43.2	32.8	46.2	40.6
36	Electric, electronic equipment	42.7	56.1	49.1	60.3	44.2
37	Transportation equipment	67.0	78.4	72.7	83.3	1.3
38	Instruments, related products	37.3	50.6	53.7	63.9	38.5
39	Miscellaneous manufacturing	26.4	36.2	34.4	42.0	32.2
	Total wholesale trade	**21.2%**	**28.3%**	**21.4%**	**29.4%**	**45.3%**
50	Durable goods	21.5	27.9	22.2	28.9	31.4
51	Nondurable goods	20.7	29.0	20.6	30.1	66.8
	Total retail trade	**18.1%**	**25.2%**	**23.5**	**30.3%**	**36.7%**
52	Blng. mats., garden supplies stores	20.7	28.0	n.a.	n.a.	0.0
53	General merchandise stores	53.8	71.5	62.9	84.5	82.2
54	Food stores	15.6	24.3	n.a.	n.a.	0.0
55 ex 554	Automotive dealers	3.7	5.7	4.3	6.2	85.1
554	Gasoline service stations	10.0	14.4	n.a.	n.a.	0.0
56	Apparel, accessory stores	31.5	41.9	35.8	46.4	80.3
57	Furniture, home furnishing stores	17.9	23.5	54.4	67.1	45.1
58	Eating, drinking places	8.1	11.5	n.a.	n.a.	0.0
591	Drug, proprietary stores	25.4	40.1	47.2	57.8	98.3
59 ex 591	Misc retail stores	17.8	22.8	34.7	39.9	56.9

Note: Percent coverage is the 1992 percentage of value added or payrolls of the comparable industries included in the sample.

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