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Periodical Price Survey 1999: Serials Publishing in Flux

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Serials Publishing in Flux

By Lee Ketcham-Van Orsdel & Kathleen Born

IT USED TO BE SIMPLE: scholars wrote articles; publishers edited, printed, and distributed the writings in journals; indexers created access tools for their content; librarians purchased both indexes and journals, usually through vendors; scholars came to the library to read the journals; these scholars wrote articles; and the cycle began again. The serials marketplace was defined and stratified

by predictable roles. Publishers competed with publishers, indexers with indexers, vendors with vendors. Strata by strata, all competed for the library's dollars. End users, though important, were rarely direct consumers.

Not any more. The web and the electronic journal are deconstructing the serials landscape. Scholars can now publish without publishers, publishers can distribute without vendors, and end users can get access to the scholarly literature without going through the library. From a technological perspective, much is possible. From a business perspective, what is possible may not prove

to be profitable or affordable. One might say we are in a learning market, which makes for risky, interesting times.

TABLE 1: AVERAGE 1999 PRICE FOR SCIENTIFIC DISCIPLINES

Discipline	Avg. Price Per Title
Physics	\$1,717.24
Chemistry	1,641.78
Astronomy	1,109.20
Engineering	961.63
Biology	931.11
Math & Computer Science	898.67
Technology	863.29
Geology	795.13
Zoology	723.52
Botany	720.01
General Science	718.88
Food Science	620.80
Health Sciences	618.31

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Costs and strategies

This year's periodicals price study will look at some of the strategies that publishers and librarians, in particular, are developing in response to the rapidly changing world of serials and serials distribution. In addition, we will analyze economic and other trends that may impact on the cost of periodical subscriptions in the year 2000. Three Institute for Scientific Information (ISI) databases—Arts and Humanities Citation Index, Social Sciences Citation Index, and Science Citation Index—provide the 5,497 titles used in the core pricing study. These databases typically reflect the subscription lists of large research libraries. For smaller academic libraries, we have included an analysis of 2,511 journals from EBSCO's Academic Search. Public and school libraries will find useful data in the brief analysis of EBSCO's Magazine Article Summaries.

Cost history and other information for the study were pulled from EBSCO's database of 260,000 serial title listings. For practical reasons, the study was limited to prepriced titles (as opposed to standing-order or bill-later titles) that can be ordered through a vendor. The data is current as of February 16, 1999.

Destroying the cyber myth

Is it too late to ask what it's gonna cost? The myth was compelling: convert the journals to cybernetic formats and the costs of subscriptions would go down because printing and postage costs would disappear. Unfortunately, the myth left out the part about the cost of converting all the accompanying systems from print to electronic. That cost is sizable, as publishers and librarians are discovering. The larger STM (scientific, technical, and medical) publishers have invested heavily in technology at the insistence of their authors. Librarians, concerned over archiving and other important issues, are currently trapped in the transition phase, forced to maintain dual systems of print and e-journals.

There are about 5000 web-based electronic journals on the market today, most of them from scholarly publishers. Recognizing the slow buy-in from libraries, the majority of commercial publishers currently provide e-journals for no additional charge with a print subscription. The past year saw net migration, in fact, from print-plus-a-percent-age pricing to print-plus-free pricing of combination packages. There is little doubt, however, that libraries are paying

TABLE 2: COST HISTORY GROUPED BY LC SUBJECT

Subject	Average No. of Titles 1995-99	Average Cost Per Title 1995	Average Cost Per Title 1996	% of Change '95-'96	Average Cost Per Title 1997	% of Change '96-'97	Average Cost Per Title 1998	% of Change '97-'98	Average Cost Per Title 1999	% of Change '98-'99	'95-'99 % of Change
Agriculture	185	\$349.12	\$409.65	17.34	\$444.72	8.56	\$441.25	-0.78	\$466.40	5.70	33.59
Anthropology	42	160.75	183.41	14.10	196.02	6.88	214.64	9.50	229.80	7.06	42.95
Art & Architecture	67	93.67	99.60	6.33	101.01	1.42	102.84	1.81	107.18	4.22	14.42
Astronomy	21	805.76	953.24	18.30	1,029.26	7.97	1,064.75	3.45	1,109.20	4.17	37.66
Biology	250	586.49	694.52	18.42	783.22	12.77	848.90	8.39	931.11	9.68	58.76
Botany	63	495.83	578.30	16.63	635.67	9.92	671.33	5.61	720.01	7.25	45.21
Business & Economics	279	248.31	294.40	18.56	333.87	13.41	369.73	10.74	411.49	11.29	65.72
Chemistry	197	1,072.73	1,272.74	18.64	1,419.71	11.55	1,522.85	7.26	1,641.78	7.81	53.05
Education	108	139.51	154.30	10.60	169.48	9.84	184.26	8.72	203.51	10.45	45.87
Engineering	274	581.80	701.71	20.61	796.17	13.46	878.77	10.37	961.63	9.43	65.29
Food Science	17	378.49	432.66	14.31	473.72	9.49	542.13	14.44	620.80	14.51	64.02
General Science	704	61.56	530.70	14.98	598.15	12.71	666.92	11.50	718.88	7.79	55.75
General Works	73	69.90	81.59	16.72	87.01	6.64	87.33	0.37	88.94	1.84	27.24
Geography	64	365.55	423.96	15.98	499.65	17.85	546.56	9.39	587.13	7.42	60.62
Geology	84	511.76	636.73	24.42	717.02	12.61	755.27	5.33	795.13	5.28	55.37
Health Sciences	1542	396.67	465.56	17.37	520.65	11.83	565.47	8.61	618.31	9.34	55.88
History	225	85.99	94.58	9.99	99.43	5.13	102.91	3.50	111.78	8.62	29.99
Language & Literature	326	77.32	87.53	13.20	90.93	3.88	91.74	0.89	97.98	6.80	26.72
Law	86	95.83	110.48	15.29	119.14	7.84	127.07	6.66	136.17	7.16	42.10
Library & Information Science	57	159.53	178.41	11.83	187.82	5.27	208.75	11.14	224.80	7.69	40.91
Math & Computer Science	193	607.32	715.89	17.88	788.03	10.08	838.60	6.42	898.67	7.16	47.97
Military & Naval Science	9	146.11	163.22	11.71	178.56	9.40	202.56	3.44	222.00	9.60	51.94
Music	49	63.97	67.22	5.08	71.79	6.80	75.04	4.53	82.12	9.43	28.37
Philosophy & Religion	142	99.66	111.95	12.33	116.57	4.13	118.56	1.71	127.08	7.19	27.51
Physics	187	1,149.13	1,359.12	18.27	1,523.16	12.07	1,611.03	5.77	1,717.24	6.59	49.44
Political Science	59	132.49	150.18	13.35	165.49	10.19	182.38	10.21	206.44	13.19	55.82
Psychology	153	179.63	204.21	13.68	223.27	9.33	242.13	8.45	268.91	11.06	49.70
Recreation	19	77.96	86.84	11.39	90.91	4.69	97.27	7.00	108.68	11.73	39.40
Sociology	297	165.36	186.94	13.05	203.80	9.02	226.89	11.33	254.40	12.12	53.85
Technology	212	534.54	634.79	18.75	717.99	13.11	794.81	10.70	863.29	8.62	61.50
Zoology	113	468.40	541.25	15.55	592.61	9.49	647.09	9.19	723.52	11.81	54.47

for development costs. One of the largest U.S. publishers, for example, raised print prices last year by 19%, while continuing to offer the electronic version for no additional charge.

Branding: not just for cowboys

Market uncertainty is forcing publishers to invent new strategies to stabilize revenue streams and reduce or recover research and development costs. Two models seem to be emerging, each of which has broad implications for the future. In the more conservative model, an electronic publisher contracts with aggregators and other service providers to supply some or all of the text conversion services, billing and marketing support, and user gateways for their journal products. This approach spreads out the cost of R&D and gives broad exposure to a publisher's journals through

TABLE 3: AVERAGE PRICE PER TITLE BY COUNTRY 1999

Country	No. of ISI Titles	Avg. Price Per Title	Country	No. of ISI Titles	Avg. Price Per Title
The Netherlands	463	\$1415.82	Australia	57	\$246.15
Ireland	46	1280.74	Norway	24	226.30
Switzerland	128	1258.13	Scotland	10	218.75
Austria	25	935.03	Sweden	18	216.64
Germany	342	787.39	Hungary	6	169.39
England	1219	760.30	Italy	55	158.20
Singapore	6	461.50	Czech Republic	6	156.17
Denmark	58	435.40	Spain	10	144.47
United States	2534	396.44	Canada	104	135.45
Russia	34	350.41	Belgium	16	122.69
New Zealand	27	348.85	India	9	80.56
France	144	281.20	Brazil	6	73.20
Japan	77	265.30	Mexico	8	68.50
Israel	12	263.75	South Africa	12	66.64

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TABLE 4: COST HISTORY BY CONTINENT/COUNTRY OF ORIGIN

Continent/Country	Average No. of Titles 1995-99	Average Cost 1995	Average Cost 1996	% of Change '95-'96	Average Cost 1997	% of Change '96-'97	Average Cost 1998	% of Change '97-'98	Average Cost 1999	% of Change '98-'99	'95-'99 % of Change
NORTH AMERICA											
United States	2525	\$259.02	\$290.29	12.07	\$322.48	11.09	\$357.18	10.76	\$396.44	10.99	53.05
Canada	103	102.12	112.98	10.63	122.90	8.78	128.17	4.29	135.45	5.68	32.64
Other	11	59.25	65.14	9.94	64.95	-0.28	65.59	0.98	63.46	-3.25	7.11
Average for all No. America	2639	\$251.96	\$282.43	12.09	\$313.58	11.03	\$347.19	10.72	\$384.69	10.80	52.68
EUROPE											
France	143	232.34	269.86	16.15	274.10	1.57	262.23	-4.39	281.20	7.23	21.03
Germany	355	545.74	648.65	18.86	679.03	4.68	713.36	5.06	787.39	10.38	44.28
Ireland	45	747.00	955.70	27.94	1,140.33	19.32	1,266.81	11.09	1,280.74	1.10	71.45
Italy	55	132.57	135.52	2.23	144.65	6.74	145.76	0.77	158.20	8.53	19.33
The Netherlands	459	932.52	1,175.11	26.01	1,336.46	13.73	1,384.35	3.58	1,415.82	2.27	51.83
Switzerland	127	843.87	1,034.74	22.62	1,165.88	12.67	1,197.32	2.70	1,258.13	5.08	49.09
United Kingdom	1226	450.51	521.66	15.79	593.34	13.74	671.34	13.15	752.63	12.11	67.06
Other	220	280.71	320.69	14.24	324.29	1.12	325.01	0.22	366.26	12.69	30.48
Average for all Europe	2631	\$538.99	\$646.90	20.02	\$721.56	11.54	\$775.00	7.41	\$837.62	8.08	55.40
ASIA											
Japan	77	271.31	285.30	5.16	288.87	1.25	284.22	-1.61	265.30	-6.66	-2.22
Other	38	160.38	183.64	14.50	206.34	12.36	220.79	7.00	248.52	12.56	54.96
Average for all Asia	115	\$233.06	\$250.82	7.62	\$262.09	4.49	\$263.64	0.59	\$259.66	-1.51	11.41
AUSTRALIA AND NEW ZEALAND											
	83	184.33	211.55	14.77	239.23	13.09	260.94	9.08	279.16	6.98	51.45
SOUTH AMERICA											
	16	67.51	73.48	8.84	73.85	0.51	75.23	1.86	76.31	1.44	13.03
AFRICA											
	13	43.06	47.73	10.84	54.86	14.93	66.65	21.49	64.59	-3.09	49.93

many gateways. It offers libraries multiple access points through many types of aggregator services. At the same time, it reduces publishers' ability to build brand identity and loyalty to their products.

The second model dispenses with the old system of stratified partnerships. Publishers using this strategy believe that their "brand" has enough strength to grow market share as a stand-alone information universe. Further, they believe that the value of their brand will be

harmed in the homogenized environment of aggregated web services. Entry to their publications, therefore, is offered exclusively through a proprietary gateway. Beyond the gateway, the textual content consists entirely of products that the publisher owns or controls. This model's success obviously depends upon the publisher's ability to offer a critical mass of journals within one or more established content areas. It is riskier because it requires tremendous capital investment up front and gambles

on users being able to find everything they need within the universe provided by a single provider.

Electronic publishers who are experimenting with the first model include Blackwell Science, MCB University Press, and Taylor & Francis. Practitioners of the second strategy include Academic Press, Elsevier Science, and John Wiley. Two other publishers—Kluwer and Springer Verlag—are apparently hedging their bets and developing the potential for both models. Early indica-

TABLE 5: COST HISTORY BY BROAD SUBJECT

Citation Index	Average No. of Titles 1995-99	Average Cost Per Title 1995	Average Cost Per Title 1996	% of Change '95-'96	Average Cost Per Title 1997	% of Change '96-'97	Average Cost Per Title 1998	% of Change '97-'98	Average Cost Per Title 1999	% of Change '98-'99	'95-'99 % of Change
ARTS & HUMANITIES											
U.S.	700	\$92.63	\$101.58	9.7%	\$108.88	7.2%	\$119.21	9.5%	\$129.63	8.7%	39.9%
NON-U.S.	704	168.28	194.69	15.7%	208.14	6.9%	218.09	4.8%	235.17	7.8%	39.7%
SOCIAL SCIENCES											
U.S.	1,363	\$192.73	\$215.27	11.7%	\$238.42	10.8%	\$264.78	11.1%	\$292.86	10.6%	52.0%
NON-U.S.	1,267	408.36	488.67	19.7%	547.44	12.0%	591.58	8.1%	643.16	8.7%	57.5%
SCIENCE											
U.S.	1,191	\$426.69	\$479.63	12.4%	\$533.56	11.2%	\$592.80	11.1%	\$658.83	11.1%	54.4%
NON-U.S.	1,751	688.95	829.44	20.4%	929.08	12.0%	994.84	7.1%	1,065.37	7.1%	54.6%

tions are that the publishers are having moderate success with the first model, less with the second.

Acquiring the critical mass

Publisher buyouts are another response to market uncertainty and are big news in the serials market. Despite a merger between Kluwer and Reed-Elsevier being called off in the face of growing attention from antitrust agencies on both sides of the Atlantic, smaller, quieter mergers have proceeded toward the same end unnoticed. Large commercial publishers are steadily absorbing smaller publishers whose journals can round out their offerings and help them achieve brand identity, or critical mass, in specialty areas. In 1998 alone, Kluwer acquired Waverly/Williams & Wilkins, Plenum, and Ovid Technologies; Taylor & Francis acquired Routledge and Carfax; Harcourt/Academic Press acquired Mosby; Bertelsmann, a large entertainment conglomerate, acquired Springer Verlag; and Elsevier Science acquired six publishers, including JAI Press, BioMedNet, and Beilstein. Smaller publishers undoubtedly see these mergers as opportunities to get their titles into the electronic mainstream. For library customers, this trend represents a loss of competition, which does not bode well for prices.

Librarians creating mass, too

In response, libraries, universities, and learned societies are beginning to experiment with creating critical mass of their own to challenge commercial publishers and drive prices down. Two such experiments are drawing attention. SPARC, the Scholarly Publishing and Academic Resources Coalition founded by the Association of Research Libraries, uses funds pledged by its members to subsidize and support publishers

Citation Index	No. of Titles	% of List	1999 Cost	% of Cost	Projected % of Increase	Projected 2000 Cost	% of Cost	Projected Overall % Increase
ARTS & HUMANITIES								
U.S.	701	49.9	\$90,869	35.5	9	\$99,047	35.7	
NON-U.S.	703	50.1	165,327	64.5	8	178,553	64.3	8.4
SOCIAL SCIENCES								
U.S.	1,369	51.8	\$400,921	32.9	11	\$445,022	33.3	
NON-U.S.	1,272	48.2	818,099	67.1	9	891,728	66.7	9.7
SCIENCE								
U.S.	1,196	40.6	\$787,959	29.7	11.5	\$878,574	30.3	
NON-U.S.	1,749	59.4	1,863,324	70.3	8.5	2,021,707	69.7	9.4
PROJECTED OVERALL INCREASE FOR ALL ISI TITLES: 9.4%								

whose e-journals can go head-to-head with very costly commercial journals but at lower subscription rates. SPARC has successfully launched electronic journals from two well-known chemical societies and a group of distinguished ecologists. (For more on SPARC, see Ken Frazier's "Liberating Scholarship," *LJ* 10/15/98, p. 40-41.—Ed.)

HighWire Press was begun by Stanford University Library in 1997 to assist society publishers in getting their journals online. With more than 100 titles now among its offerings and with growing markets in the United States and abroad, HighWire is challenging the assumption that full-featured web journals have to come from commercial STM publishers. These library-driven strategies, like the ones of the commercial publishers, are fueled by hopes of shaping future markets in their favor.

A global economy

Publishers and vendors have taken a hit from the economic crises in Asia and in Latin America. Reacting to the threat of significant cancellations in many Asian countries and in Brazil, some publishers attempted to protect

their subscription base in these countries by extending credit directly to customers and/or to their agents to keep them from canceling titles. Other publishers decided to accept the cancellations and reduce their exposure to losses from bad credit. In the midst of the dilemma are agents, whose profits have also been affected by libraries that could not pay.

On the positive side, the advent of the long-awaited Euro should have a stabilizing effect on periodical pricing, particularly for libraries in European countries, in that costs should become more transparent with fewer cross-border currency exchanges. Given the diversity among nations in the European Union relative to unemployment, inflation, and economic strength, experts split on the question of whether the dollar or the Euro will emerge as the favored currency in 1999. Either way, prices for serials sold across the Atlantic will be affected, just as they have in the past.

Cost trends

Despite the chaos surrounding electronic journals, print subscriptions still command most of the serials dollars in libraries and, therefore, still require

Periodical Prices for Public and School Libraries

Titles in EBSCO Publishing's general index, Magazine Article Summaries (MAS), are

those most often subscribed to by school and public libraries in the United States based on data from EBSCO

Subscription Services. Table 7 provides historical data for about 350 titles in the index. Price increases for next year are expected to be in the range of five percent.

TABLE 7: COST HISTORY FOR TITLES IN MAGAZINE ARTICLE SUMMARIES

Magazine Article Summaries	Average No. of Titles '95-'99	Average Cost Per Title 1995	Average Cost Per Title 1996	% of Change '95-'96	Average Cost Per Title 1997	% of Change '96-'97	Average Cost Per Title 1998	% of Change '97-'98	Average Cost Per Title 1999	% of Change '98-'99	'95-'99 % of Change
U.S.	334	\$42.03	\$44.07	4.9	\$46.14	4.7	\$48.02	4.1	\$50.32	4.8	19.7
NON-U.S.	10	100.02	107.94	7.9	112.41	4.1	123.15	9.6	129.48	5.1	29.5

careful cost analysis in planning renewal budgets. Table 2 charts changes in the average cost of journals in each major discipline over the past five years. Price

history for broad disciplines is detailed in Table 5. For the sixth year in a row, Physics holds the dubious distinction of having the highest average cost per

title (\$1,717), as Table 1 indicates.

Country of origin analysis provides another useful indicator of price trends. Table 4 charts the changing costs of ti-

Periodical Prices for College and Medium-Sized University Libraries

An analysis of EBSCOhost Academic Search is included for the benefit of smaller academic libraries, for whom the ISI indexes may be too comprehensive. Table 9 gives price history by discipline for the 2,511 titles in the index. For mid-sized libraries whose collections fall somewhere between ISI and Academic Search, Table 9 can be used in conjunction with Table 2 to es-

tablish a range for a given discipline.

We estimate the overall cost of non-U.S. subscriptions in Academic Search will rise an average of 13 percent. This projection allows for the high concentration of British titles and

assumes the dollar will improve its strength somewhat against the pound. Domestic prices are estimated to increase around ten percent, raising the overall cost for this combination of titles by 11.4%.

TABLE 8: 2000 COST PROJECTIONS FOR TITLES IN ACADEMIC SEARCH

Academic Search	No. of Titles	% of List	1999 Cost	% of Cost	Projected % of Increase	Projected 2000 Cost	% of Cost	Projected Overall % Increase
U.S.	1,908	78.1%	\$280,533	54.7%	10.0%	\$308,586	54.0%	11.4%
NON-U.S.	535	21.9%	232,203	45.3%	13.0%	262,389	46.0%	

TABLE 9: COST HISTORY FOR TITLES IN ACADEMIC SEARCH

Subject	Average No. of Titles 1995-99	Average Cost Per Title 1995	Average Cost Per Title 1996	% of Change '95-'96	Average Cost Per Title 1997	Average % of Change '96-'97	Average Cost Per Title 1998	Average % of Change '97-'98	Average Cost Per Title 1999	% of Change '98-'99	'95-'99 % of Change
Agriculture	33	\$55.38	\$59.85	8.07	\$64.73	8.15	\$73.49	13.53	\$77.22	5.08	39.44
Anthropology	28	129.15	151.36	17.20	160.07	5.75	171.33	7.03	190.83	11.38	47.76
Art & Architecture	39	75.32	81.36	8.02	86.62	6.47	91.30	5.40	98.82	8.24	31.20
Astronomy	4	332.74	369.24	10.97	419.49	13.61	484.48	15.49	545.73	12.64	64.01
Biology	31	318.30	360.87	13.37	394.42	9.30	427.29	8.33	481.56	12.70	51.29
Botany	4	143.50	153.50	6.97	161.25	5.05	164.13	1.79	183.25	11.65	27.70
Business & Economics	471	184.64	213.33	15.54	240.69	12.83	274.41	14.01	315.02	14.80	70.61
Chemistry	6	650.60	753.91	15.88	800.50	6.18	886.67	10.76	970.33	9.44	49.14
Education	168	109.85	122.36	11.39	133.47	9.08	143.70	7.66	159.35	10.89	45.06
Engineering	128	168.05	190.39	13.29	207.18	8.82	234.87	13.37	255.79	8.91	52.21
Food Science	21	81.93	92.19	12.52	99.43	7.85	106.65	7.26	108.92	2.13	32.94
General Science	31	147.51	161.98	9.81	178.17	10.00	197.36	10.77	222.56	12.77	50.88
General Works	90	51.71	55.67	7.66	59.31	6.54	63.50	7.06	67.13	5.72	29.82
Geography	29	197.13	219.43	11.31	249.98	13.92	280.20	12.09	292.20	4.28	48.23
Geology	14	372.93	437.14	17.22	471.43	7.84	492.28	4.42	509.57	3.51	36.64
Health Sciences	214	176.82	198.91	12.49	220.67	10.94	245.58	11.29	275.18	12.05	55.63
History	165	74.50	81.41	9.28	85.31	4.79	91.44	7.19	98.48	7.70	32.19
Language & Literature	170	65.12	71.54	9.86	75.00	4.84	80.42	7.23	87.65	8.99	34.60
Law	63	86.08	99.03	15.04	100.65	1.64	112.12	11.40	121.20	8.10	40.80
Lib. & Information Science	55	136.79	151.93	11.07	160.35	5.54	182.63	13.89	198.73	8.82	45.28
Math & Computer Science	46	180.91	204.34	12.95	221.25	8.28	241.37	9.09	270.65	12.13	49.60
Military & Naval Science	19	45.08	46.88	3.99	52.16	11.26	72.03	38.09	77.72	7.90	72.40
Music	22	56.59	60.56	7.02	65.56	8.26	70.61	7.70	75.12	6.39	32.74
Philosophy & Religion	70	63.07	70.47	11.73	75.70	7.42	79.43	4.93	85.01	7.03	34.79
Physics	12	393.42	433.00	10.06	466.17	7.66	511.83	9.79	560.42	9.49	42.45
Political Science	72	85.89	95.98	11.75	105.17	9.57	114.55	8.92	129.15	12.75	50.37
Psychology	68	175.05	191.44	9.36	215.74	12.69	239.94	11.22	269.08	12.14	53.72
Recreation	26	54.56	61.71	13.10	64.95	5.25	69.29	6.68	76.56	10.49	40.32
Sociology	244	136.72	151.10	10.52	162.73	7.70	184.51	13.38	207.55	12.49	51.81
Technology	76	136.38	154.88	13.57	170.42	10.03	186.39	9.37	204.19	9.55	49.72
Zoology	13	146.72	157.29	7.20	171.32	8.92	180.25	5.21	195.71	8.58	33.39

tles from countries around the world. European publications dominate both in number of titles and in the average cost of a single title (Table 3), making them the ones to watch for greatest budget impact. Depending on the currency-hedging practices of the various publishers, these titles are also the ones whose annual inflationary price increases are likely to be exaggerated or minimized by fluctuations in international currency exchange.

The relationship between currency and the cost of journals is illustrated in Chart 1, where increases in U.S. and non-U.S. subscription costs are plotted in comparison to the relationship between U.S. and European currencies. U.S. libraries benefit when the yellow currency line turns downward, because that means the composite of European currencies is losing strength against the dollar, driving the cost of European journals down. The degree of deviation between the blue and the yellow lines is an indicator of how much of the currency benefit is being passed along to U.S. customers in any given year.

Budgeting for 2000

These early projections assume that the U.S. economy will remain relatively stable and that the dollar will basically hold its strength against the Euro and gain some strength against the British pound. We believe that the cost of electronic journals will continue to fluctuate until a larger and more stable base of subscribers is established, over which publishers will be able to spread out development costs. In the meantime, we expect that many publishers will pass along those costs when they set prices for print subscriptions for the year 2000.

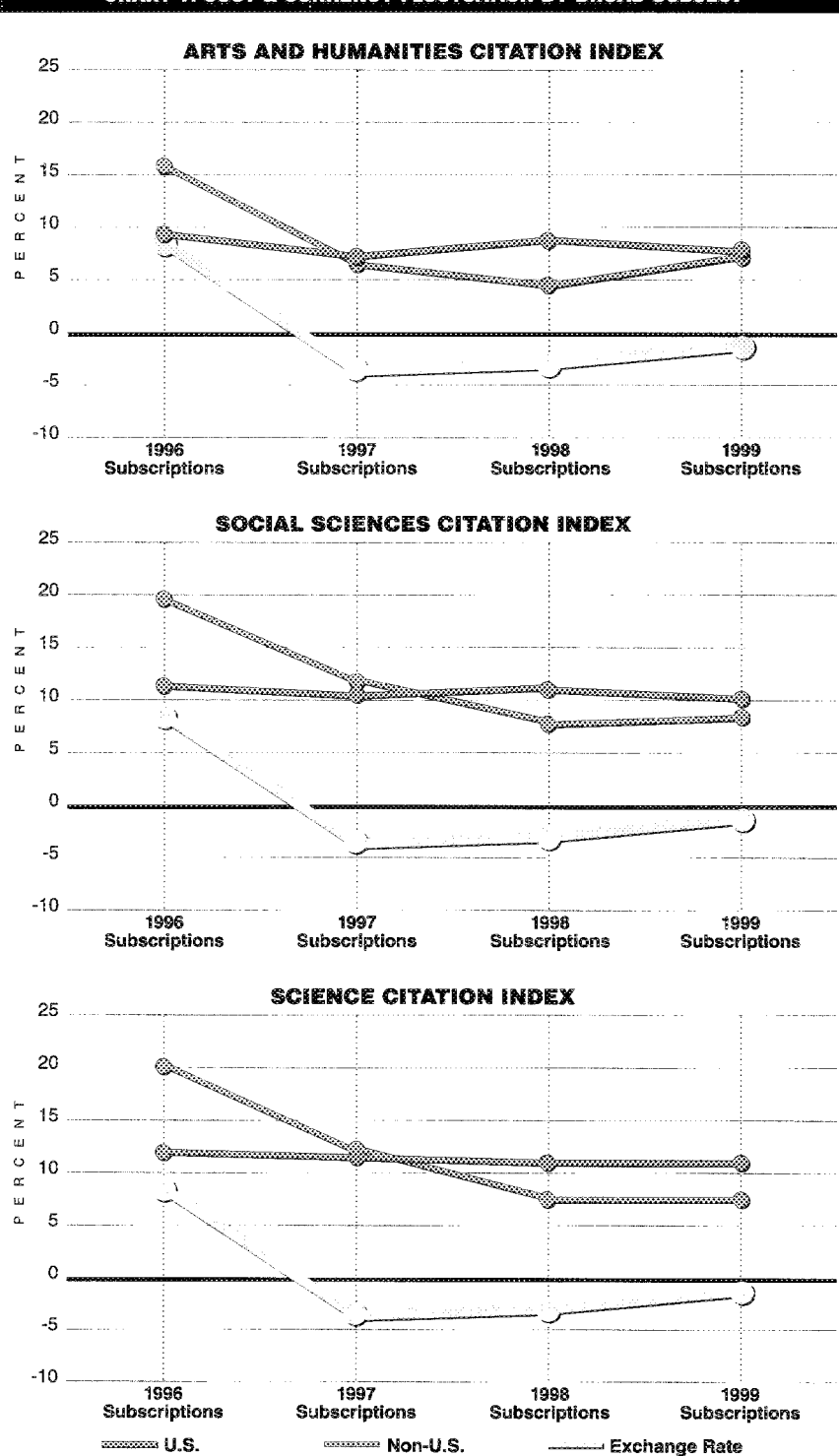
Increases in the 8%–11% range for print subscriptions are probable for STM publications. Publishers that are pushing to recover R&D costs will price on the high side of that range and perhaps beyond. University and society publications are expected to increase in the 6%–9% range. Strong advertising revenues will continue to underwrite publishing costs of consumer magazines, holding rate hikes for those titles to around 5%. We may begin to see advertisements in scholarly e-journals, as well, so powerful is their potential to offset costs for publishers and for subscribers.

We forecast an average overall increase of 9.4% for the ISI titles in the study. Separate projections for the broad

areas covered in the three indexes are provided in Table 6. Factors to watch as the subscription season approaches include the developing Euro, the tenuous

global economy, and evolving publisher strategies for marketing expensive new electronic products to a relatively unresponsive market. ■

CHART 1: COST & CURRENCY FLUCTUATION BY BROAD SUBJECT



The "exchange rate" line is based on an average of five major European currencies: the British pound, Dutch guilder, French franc, Swiss franc, and German mark. Each point on the exchange rate line represents the change in the composite currency's value as compared to the U.S. dollar (i.e., the change in how many dollars can be bought by a unit of the representative currency from one year to the next).