4-1-2000

Periodical Price Survey 2000: Pushing Toward More Affordable Acccess

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40TH ANNUAL REPORT

PERIODICAL PRICE SURVEY 2000

Pushing Toward More Affordable Access

By Lee Ketcham-Van Orsdel & Kathleen Born

SINCE THE DEBUT of the first electronic journals, scientific, technical, and medical (STM) publishers have seemed impervious to demands for affordable access to electronic journals and for seamless navigation within and among them. Now they are paying closer attention. Consortia and high-profile libraries have begun to say no when they don't like the deals publishers offer. Learned societies, academic institutions, and government research centers have launched a credible array of database projects that link collections of journals and scholarly papers, at prices that are far below those of commercial publishers and with features that are attracting the interest of scholars. These strategies appear to be nudging publishers toward more open and cooperative approaches.

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The best evidence of this is the announcement last fall that 12 of the largest STM's are planning to link citations to article text across their collective boundaries.

On the pricing front, libraries appear to have found significant power in numbers. Consortia, which by last year existed in every region of the world, have begun forcing publishers to offer flexible, value-adding deals or risk being shut out of virtual library projects that offer publishers broad exposure and broad market share. The negotiating power of the consortium is clearly altering publishers' marketing strategies to the benefit of libraries and end users. That, too, is a hopeful sign.

Even for beleaguered subscription agents, there were reasons for optimism. Although the number of major academic vendors had shrunk to three by the end of 1999, those that remained have consolidated their competitive positions by developing new strategies to broker electronic products—a far more complex service than print subscriptions—and to add value in the larger market of information services.

This year's periodicals price study will look at these and other changes in the serials marketplace for the purpose of analyzing trends that will affect price and availability of serials and services in the coming year. For the Price Study, three Institute for Scientific Information (ISI) databases—Arts and Humanities Citation Index, Social Sciences Citation Index, and Science Citation Index—provide the 5,698 titles used in the core study. These databases typically reflect the subscription lists of large research libraries. For smaller academic libraries, we have included an analysis of 2,109 journals in EBSCO Publishing's Academic Search Elite. 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 data are 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 8, 2000.

TABLE 1: AVERAGE 2000 PRICE FOR SCIENTIFIC DISCIPLINES

Discipline	Avg. Price Per Title
Physics	$1,879.71
Chemistry	1,781 58
Astronomy	1,052 71
Engineering	1,034.58
Biology	996 45
Math & Computer Science	961.82
Technology	937.50
Geology	867.15
Zoology	820.34
General Science	761.97
Botany	756.24
Food Science	675.65
Health Sciences	672.35
Geography	655.11

Making sense of the market

Despite all the hoopla about online journals, virtually every publisher in the world still relies on print subscriptions to maintain revenue stream. The STM publishers that produce the majority of e-journals are a minority in number, but they dominate the market in terms of revenue and influence. Electronic journal publishers are a minority in number, but they dominate the market in terms of revenue and influence. The mix of strategies they use to develop an online presence, together with the strategies by which they package and sell digital product, creates a lot of confusion in the serials market.

Getting online

There are two kinds of online journal publishing: e-journal and full-text aggregation. E-journals are those periodicals that are put directly into an online format by the publisher or his agent. Typically, they are sold on a title-by-title basis in tandem with their print counterparts. E-journals have the most cachet with scholars in the STM community, and they have the most potential to add value in terms of scholarly dialog, links to other resources, and presentation of complex data and images. They give the publisher direct control of sales and access issues and provide the recognition, or brand identity, that comes with a proprietary gateway.

Most of the STM publishers, including large society publishers like IEEE and the American Psychological Association (APA), have chosen the e-journal route. A number of not-for-profit efforts are underway to provide smaller scholarly publishers with an affordable way to publish e-journals, as well. SPARC, HighWire, and the proposed BioOne project are good examples. These projects are driven by a mission to create a more competitive market for high-end scientific journals in order to drive down the costs of their commercial counterparts.

Where demand for the e-journal format is not acute, publishers may choose instead to publish electronically through an aggregator that produces secondary databases such as EBSCO*host*, InfoTrac Web, or ProQuest. In this scenario, publishers turn over electronic (or sometimes print) versions of their journals to one or more database vendors in exchange for extra revenue and for the opportunity to gain an electronic presence. This strategy requires publishers to weigh the risk of losing print subscriptions against the benefit of reaching markets

TABLE 2: COST HISTORY GROUPED BY LC SUBJECT

Subject	Average No. of Titles 1996–2000	Average Cost Per Title 1996	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	Average Cost Per Title 2000	% of Change 1999–2000	% of Change 1996–2000
Agriculture	186	$404.40	$439.42	8.66	$433.63	-1.32	$460.19	6.13	$498.24	8.27	23.20
Anthropology	40	185.76	200.17	7.76	219.70	9.76	235.52	7.20	250.54	6.38	34.87
Art & Architecture	71	99.62	100.25	0.63	101.92	1.67	104.61	2.64	107.35	2.62	7.76
Astronomy	23	884.39	954.68	7.95	993.81	4.10	1,039 06	4.55	1,052.71	1.31	19.03
Biology	256	691.73	776.79	12.30	840.24	8.17	917.57	9.20	996.45	8.60	44.05
Botany	65	565.64	620.77	9.75	654.83	5.49	701.58	7.14	756.24	7.79	33.70
Business & Economics	282	292.15	330.97	13.29	366.56	10.75	407 97	11.30	458.35	12.35	56.89
Chemistry	196	1,277.75	1,425.44	11.56	1,529.93	7.33	1,643.52	7.42	1,781.58	8.40	39.43
Education	111	155.11	170.43	9.88	184.67	8.36	203.39	10.14	224.86	10.56	44.97
Engineering	280	694.78	787.78	13.39	865.50	9.87	947.36	9.46	1,034.58	9.21	48.91
Food Science	17	432.66	473.72	9.49	542.13	14.44	620 80	14.51	675.65	8.84	56.16
General Science	78	510.20	579.49	13.58	642.13	10.81	691.19	7.64	761.97	10.24	49.35
General Works	91	75.01	79 09	5.44	78.61	-0.61	80.08	1.87	81.91	2 29	9.20
Geography	64	420.51	496.90	18.17	544.00	9.48	584.20	7.39	655.11	12.14	55 79
Geology	82	643.77	725.81	12.74	765.10	5.41	804.23	5.11	867 15	7.82	34.70
Health Sciences	1,561	465.91	521.15	11.86	567.13	8.82	621.34	9.56	672.35	8 21	44.31
History	260	89.39	94.20	5.38	97 63	3.64	105.76	8.33	111.92	5.82	25.20
Language & Literature	373	82.16	85.62	4.21	86 93	1.53	92.77	6.72	96.04	3.52	16.89
Law	84	110.83	119.54	7.86	127.49	6.65	136.59	7.14	145.41	6.46	31.20
Library & Information Science	60	180.54	189.67	5.06	210.30	10.88	227.25	8.06	240.76	5.94	33.36
Math & Computer Science	196	709.26	779.09	9.85	830.43	6.59	891.49	7.35	961.82	7.89	35.61
Military & Naval Science	9	172.56	188.44	9.20	252.78	34.14	276.44	9.36	301.11	8.92	74.50
Music	51	63.83	68.06	6.63	70.99	4.31	77.45	9.10	78.98	1 98	23.73
Philosophy & Religion	152	109.63	114.38	4.33	116.29	1.67	125.07	7.55	132.82	6.20	21.15
Physics	195	1,384.36	1,548.97	11.89	1,634.99	5.55	1,734.41	6.08	1,879.71	8.38	35.78
Political Science	49	154.28	170.03	10.21	186.16	9.49	207.40	11.41	226.67	9 29	46.92
Psychology	157	202.40	220.91	9.15	237.69	7.60	265.70	11.78	291.13	9.57	43.84
Recreation	19	86.84	90.91	4.69	97.27	7.00	108.68	11.73	116.57	7.26	34.24
Sociology	298	183.39	199.95	9.03	223.19	11.62	249.41	11.75	274.08	9.89	49.45
Technology	207	628.97	712.03	13.21	786.43	10.45	859.32	9.27	937.50	9.10	49.05
Zoology	111	564.14	613.91	8.82	671.51	9.38	753.16	12.16	820.34	8.92	45.41

TABLE 3: AVERAGE PRICE PER TITLE BY COUNTRY 2000

Country	No. of ISI Titles	Avg. Price Per Title	Country	No. of ISI Titles	Avg. Price Per Title
The Netherlands	461	$1,508.93	Australia	59	$259.90
Ireland	45	1,443.76	Israel	14	240.79
Switzerland	121	1,425.31	Norway	26	203.09
Austria	26	944.99	Sweden	26	203.09
Germany	352	826.75	Czech Republic	7	174.60
England	1,303	810.63	Hungary	8	164.75
Singapore	7	700.00	Spain	12	159.83
United States	2,576	430.11	Canada	117	138.52
Denmark	61	400.46	Italy	61	125.26
New Zealand	27	391.35	Belgium	15	109.32
Russia	33	367.18	India	9	84.00
Scotland	14	310.40	Taiwan	6	81.00
France	157	273.49	Mexico	10	71.20
Japan	74	271.19	Brazil	6	70.48

AVERAGE COST OF AN ISI TITLE: $632.47

in which they have not historically sold print subscriptions, such as community colleges and public libraries. Publishers in the social sciences and humanities tend to select this option. A growing number of STM publishers also publish their e-journals in secondary databases, often after a waiting period (or embargo) of 12 to 18 months. The vast majority do not.

E-journal pricing

About 75% of publishers last year included e-journals with print subscriptions at no visible additional charge. That is not to say online is free. The cost to the publisher for the investment in technology—and it is substantial—is recovered in the cost of the print subscription, which everyone pays. The remaining 25% of publishers levied a surcharge for print with online (typically 10% to 30% above the cost of print alone), ostensibly charging only customers who really want the electronic version.

So tightly wedded is print to online that a mere half of the 5000 e-journals in EBSCO's database can be purchased without the print counterpart—further evidence of publishers' determination to protect their print subscription base. At this point, in fact, no major publisher has discontinued the print version of an online journal. Where print attrition has occurred, it has been in newsletters and directories of smaller presses. Until the archiving issue is resolved, there is little reason to believe that librarians will force publishers to explore with

TABLE 4: COST HISTORY BY CONTINENT/COUNTRY OF ORIGIN

Continent/Country	Average No. of Titles 1996–2000	Average Cost 1996	Average Cost 1997	% of Change '96–'97	Average Cost 1998	% of Change '97–'98	Average Cost 1999	% of Change '98–'99	Average Cost 2000	% of Change 1999–2000	% of Change 1996–2000
NORTH AMERICA											
United States	2.573	$286.45	$318.37	11.14	$352.09	10.59	$391.35	11.15	$430.11	9.90	50.15
Canada	116	108.26	117 43	8.47	122.09	3.97	127.94	4.79	138.52	8.27	27.95
Other	13	82.43	84.31	2.28	84.28	-0.04	80.02	-5.05	83 81	4.73	1.67
Average for all No. America	**2,703**	**277.86**	**308.57**	**11.05**	**340.96**	**10.49**	**378.28**	**10.95**	**415.73**	**9.90**	**49.62**
EUROPE											
France *	155	251.06	257.35	2.51	250 57	-2.63	278.46	11.13	273.49	-1.78	8.93
Germany *	360	655.89	689.26	5.09	721 89	4.73	794.96	10.12	826.75	4.00	26.05
Ireland *	44	997.81	1,187.82	19.04	1,326.60	11.68	1,337.33	0.81	1,443.76	7.96	44.69
Italy *	60	113.96	123.16	8.07	123.29	0.11	133.59	8.35	125.26	-6.24	9.92
The Netherlands *	464	1,158.14	1,316.41	13.67	1,360.16	3.32	1,391.62	2.31	1,508.93	8.43	30.29
Switzerland	127	1,030.54	1,161.30	12.69	1,206.34	3.88	1,262.44	4.65	1,425.31	12.90	38.31
United Kingdom	1,313	507.86	575.97	13.41	651.22	13.07	729.51	12.02	802.04	9.94	57.92
Other	238	306.19	308 82	0.86	308.99	0.06	348.97	12.94	349.00	0.01	13.98
Average for all Europe	**2,760**	**629.30**	**701.14**	**11.42**	**752.98**	**7.39**	**814.02**	**8.11**	**877.40**	**7.79**	**39.42**
ASIA											
Japan	75	273.84	272.05	-0.65	269.61	-0.90	251.16	-6.84	271.19	7.97	-0.97
Other	44	189.62	214.04	12.88	229.80	7.36	255.36	11.12	278.53	9.07	46.89
Average for all Asia	**119**	**241.99**	**251.09**	**3.76**	**255.22**	**1.65**	**252.73**	**-0.98**	**273.93**	**8.39**	**13.20**
AUSTRALIA AND NEW ZEALAND	85	205.75	235.68	14.55	254.50	7.98	269.60	5.93	301.17	11.71	46.37
SOUTH AMERICA	16	70.10	71.73	2.32	73.10	1.92	74.31	1.65	76.17	2.51	8.66
AFRICA	14	70.44	76.10	8.04	86.14	13.19	83 87	-2.63	89.74	7.00	27.40

* Included in European Monetary Union

TABLE 5: COST HISTORY BY BROAD SUBJECT

Citation Index	Average No. of Titles 1996–2000	Average Cost Per Title 1996	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	Average Cost Per Title 2000	% of Change 1999–2000	% of Change 1996–2000
ARTS & HUMANITIES											
U.S.	785	$96.66	$103.65	7.2%	$113.43	9.4%	$123.19	8.6%	$133.64	8.5%	38.3%
NON-U.S.	801	187.69	201.26	7.2%	211.57	5.1%	227.88	7.7%	241.69	6.1%	28.8%
SOCIAL SCIENCES											
U.S.	1,342	215.58	238.59	10.7%	265.00	11.1%	293.14	10.6%	322.79	10.1%	49.7%
NON-U.S.	1,311	482.09	540.04	12.0%	582.73	7.9%	634.50	8.9%	689 35	8.6%	43.0%
SCIENCE											
U.S.	1,192	483.38	538.27	11.4%	597.43	11.0%	665.11	11.3%	729.89	9.7%	51 0%
NON-U.S.	1,793	823.27	921.26	11.9%	986.36	7.1%	$1,054.84	6.9%	1,136.30	7.7%	38.0%

much enthusiasm the possibilities of life without print.

Selling by the bundle

All publishers have journals that run the gamut of success and importance. Established, blue chip titles subsidize marginal ones in every publishing house, both commercial and association publishers, e.g., the American Chemical Society. Now that there are ways to measure use at the article level, publishers are afraid that weaker titles won't survive. So some of them bundle their titles into a package deal, on the premise that the value of their entire content is greater than the sum of its parts. Print subscription or not, a library (or a consortium) must buy an entire digital package to gain access to a single e-title. The Association for Computing Machinery (ACM), the American Mathematical Society, the American Psychological Association, Academic Press, and IEEE are some of the larger STMs that have adopted this approach.

Bundling succeeds as a sales strategy where groups of libraries are willing to pay about what they've always paid in exchange for additional titles and cross-consortia access. It works less well when consortia want only a few, carefully selected titles. A large buying group in California last year, in fact, excluded the works of a handful of major STM publishers from its digital library project when they could not get those publishers to sell titles unbundled.

Where have all the agents gone?

Consortia deals, while a boon to libraries, have added pressure to subscription agencies already squeezed by a decade of shrinking discounts from publishers. When publishers deal directly with consortia for the sale of their electronic titles, vendors lose the opportunity to place orders for e-journals. When those same publishers deeply discount print journals as part of the deal, vendors take a second hit.

Even when agents broker the consortia deals—and there are trends in that direction—the cost of servicing electronic subscriptions is far greater than that of servicing traditional subscriptions. Shrinking margins, tightening markets, and higher costs have led to a rash of consolidations. Two of the four remaining major international agencies were bought out last year. Dawson/Faxon was purchased by upstart Internet company RoweCom in the fall, and Blackwell finalized its merger with Swets last month. EBSCO and Swets Blackwell, along with RoweCom, will now service the lion's share of agency business in the world. The remaining portion will be served for the most part by the 40 or so specialized agencies that operate in particular markets and countries around the globe.

Really hot links

Last fall, 12 STM publishers announced that they were going to cooperate with each other in creating a database that would allow scientists to follow cross references from one of their publications to the other. John Wiley and Academic Press quietly developed the prototype for the citation links, and they were joined by the American Association for the Advancement of Science, the American Institute of Physics, the Association for Computing Machinery, Blackwell Science, Elsevier, IEEE, Kluwer, *Nature*, Oxford University Press, and Springer-Verlag. They have since created a nonprofit organization, appointed a board, and named the project *CrossRef*. As of early February, ten additional scientific publishers had signed on. The authentication process that will regulate the system has not yet been designed, but the partners intend to launch the project early in 2000.

It is not clear how much the circle of par-

TABLE 6: 2001 COST PROJECTIONS BY BROAD SUBJECT

Citation Index	No. of Titles	% of List	2000 Cost	% of Cost	Projected % of Increase	Projected 2001 Cost	% of Cost	Projected Overall % Increase
ARTS AND HUMANITIES CITATION INDEX								
U.S.	785	49.5	$104,911	35.2	8.0	$113,304	35.4	7.4
NON-U.S.	800	50.5	193,348	64.8	7.0	206,882	64.6	
SOCIAL SCIENCES CITATION INDEX								
U.S.	1,345	50.6	434,153	32.4	10.0	477,568	32.6	9.3
NON-U.S.	1,312	49.4	904,428	67.6	9.0	985,827	67 4	
SCIENCE CITATION INDEX								
U.S.	1,196	40.1	872,945	30.0	10.0	960,240	30 4	8.6
NON-U.S.	1,789	59.9	2,032,849	70.0	8.0	2,195,477	69.6	
PROJECTED OVERALL INCREASE FOR ALL ISI TITLES: 8.7%								

Periodical Prices for College and Medium-Sized University Libraries

An analysis of EBSCO*host* Academic Search is included for the benefit of smaller academic libraries, for which the ISI indexes may be too comprehensive. Table 9 gives price history by discipline for the 2,109 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 establish a range for a given discipline.

We estimate the overall cost of non-U.S. subscriptions in Academic Search will rise an average of 13.5 percent. This projection allows for the high concentration of British titles and assumes the dollar will hold its current strength against the pound. Domestic prices are estimated to increase around 9.5 percent.

TABLE 8: 2000 COST PROJECTIONS FOR TITLES IN ACADEMIC SEARCH

Academic Search	No. of Titles	% of List	2000 Cost	% of Cost	Projected % of Increase	Projected 2001 Cost	% of Cost	Projected Overall % Increase
U.S.	1,611	76.2%	$257,135	51.6%	9.5%	$281,563	50.7%	11.4%
NON-U.S.	504	23.8%	241,165	48.4%	13.5%	273,722	49.3%	

TABLE 9: COST HISTORY FOR TITLES IN ACADEMIC SEARCH

Subject	Average No. of Titles 1996–2000	Average Cost Per Title 1996	Average Cost Per Title 1997	% of Change '94–'95	Average Cost Per Title 1998	Average % of Change '97–'98	Average Cost Per Title 1999	Average % of Change '98–'99	Average Cost Per Title 2000	% of Change 1999–2000	% of Change 1996–2000
Agriculture	29	$59.23	62.69	5.84	72.27	15.28	76.08	5.27	80.77	6.16	36.37
Anthropology	26	146.59	155.35	5.98	165.90	6.79	184.13	10.99	193.38	5.02	31.92
Art & Architecture	34	82.07	87.97	7.19	93.45	6.23	102.54	9.73	107.43	4.77	30.90
Astronomy	3	32.65	35.32	8.18	35.97	1.84	37.63	4.61	41.30	9.75	26.49
Biology	29	308.43	332.83	7.91	357.60	7.44	395.63	10.63	427.78	8.13	38.70
Botany	4	153.50	161.25	5.05	164.13	1.79	183.25	11.65	197.00	7.50	28.34
Business & Economics	343	240.70	272.87	13.37	308.87	13.19	356.43	15.40	415.47	16.56	72.61
Chemistry	5	903.14	959 00	6.19	1,062.40	10.78	1,162.80	9.45	1,233.20	6.05	36.55
Education	135	134.49	146.92	9.24	157.75	7.37	176.77	12.06	192.95	9.15	43.47
Engineering	107	215.51	235.44	9.25	267.76	13.73	292.15	9.11	323.44	10.71	50.08
Food Science	15	95.28	102.48	7.56	110.39	7 72	114.42	3.65	127.47	11.41	33.78
General Science	32	173.11	189.76	9.62	207.79	9.50	230.98	11.16	260.63	12.84	50.56
General Works	84	56.72	60.29	6.29	65.04	7.88	69.56	6.95	73.90	6.24	30.29
Geography	28	204.23	235.19	15.16	265.64	12.95	276.82	4.21	309.66	11.86	51.62
Geology	14	467.92	475 93	1.71	498.50	4.74	516 36	3.58	537.93	4.18	14.96
Health Sciences	188	199.20	219.75	10.32	246.03	11.96	275.44	11.95	307.53	11.65	54.38
History	153	79.22	85.84	8.36	92.31	7.54	98.60	6.81	106.49	8.00	34.42
Language & Literature	168	70.73	74.30	5.05	79.34	6.78	86.25	8.71	91.66	6.27	29.59
Law	50	98.52	97.12	-1.42	112.39	15.72	123.45	9.84	132.83	7.60	34.83
Library & Info Science	53	104.63	104.90	0.26	122.09	16.39	134.06	9.80	146.49	9.27	40.01
Math & Computer Science	45	196.08	212.74	8.50	232.36	9.22	260.84	12.26	289.63	11.04	47.71
Military & Naval Science	16	47.81	50.09	4.77	52.53	4.87	54.40	3.56	59.56	9.49	24.58
Music	16	66.58	72.02	8.17	78.22	8.61	83.60	6.88	87.42	4.57	31.30
Philosophy & Religion	67	69.44	74.50	7.29	77.76	4.38	83.13	6.91	89.27	7.39	28.56
Physics	11	433.09	463.05	6.92	496.86	7.30	544.41	9.57	606.09	11.33	39.95
Political Science	71	96.20	105.50	9.67	114 81	8.82	129.01	12.37	144.14	11.73	49.83
Psychology	65	176.24	196.45	11.47	217.82	10 88	240.55	10.44	263.66	9.61	49.60
Recreation	20	63.78	69 19	8.48	72 43	4.68	79.88	10.29	85.08	6.51	33.40
Sociology	228	150.16	161.83	7.77	185.91	14.88	207.54	11.63	233.66	12.59	55.61
Technology	48	167.18	186.77	11.72	207.56	11.13	226.28	9.02	241.37	6.67	44.38
Zoology	11	170.29	184.92	8.59	193.03	4.39	211.93	9.79	235.17	10.97	38.10

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 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 1996–2000	Average Cost Per Title 1996	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	Average Cost Per Title 2000	% of Change 1999–2000	% of Change 1996–2000
U.S.	349	$43.58	$45.56	4.5	$47.88	5.1	$50.46	5.4	$52.60	4.2	20.7
NON-U.S.	14	83.74	87.26	4.2	89.07	2.1	93.85	5.4	102.33	9.0	22.2

ticipation will be widened in the months and years to come. At this time, there are no plans to include secondary publishers of indexes and abstracts, outside of those owned by the original partners. As it now stands, the project excludes linking participation by SilverPlatter, ISI, Ovid, and Dialog. Given the interest many STM publishers have shown in linking to these very services, it is reasonable to expect that all will eventually be included. Again, market demand may force cooperation.

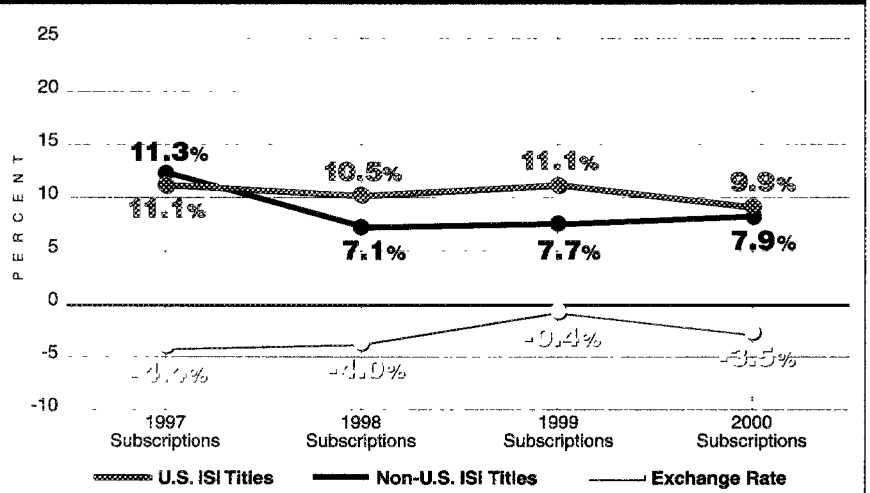
From a marketing perspective, this cooperative project appears to signal the end of some publishers' hopes to corner the market under their own flag. It also appears to confirm that competition from the not-for-profit sector is having the desired effect of forcing the more successful STM publishers to cooperate on behalf of the scientific community. The implication is that if they don't, others will. If new projects like PubMed Central (National Institutes of Health) and PubScience (Department of Energy) proceed apace, they may speed up development of this cross-referencing project even more.

Cost trends

The performance of the Euro in its maiden year had a positive effect on the cost to U.S. libraries of some European publications. Between its launch on January 1, 1999, and the fall subscription season, the Euro dropped over 10% in strength against the U.S. dollar. If you assume an 8%–10% inflationary increase was probable from STM publishers, you would also assume that the strength of the dollar should have resulted in little or no price increases and even price decreases. You would further expect that the prices of all STM publications in Euro countries would show similar effects. That is not what happened, as Table 4 indicates. Price increases for journals published in Germany, France, and Italy were moderated as expected, with the highest average increases around 4%. Price increases for journals published in the Netherlands and Ireland, however, averaged around 8%.

Prices for British publishers followed a predictable pattern. There was little change in the relationship between the pound and the dollar from the fall of 1998 to the fall of 1999, so price increases in the United Kingdom last year averaged just under 10%, a more or less standard rate of inflation these days, with no discernable currency effect.

CHART 1: COST & CURRENCY FLUCTUATION



The "exchange rate" line is based on a weighted average of the British pound, the Euro, and the Swiss franc. 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).

Budgeting for 2001

Our projections for journal budgets in 2001 are conservative estimates, based on the assumption that the U.S. economy will remain strong; that the Euro will neither gain nor lose dramatically against the dollar; and that the relationship between the pound and the dollar will hold steady. Needless to say, these factors bear watching as the subscription season approaches.

Because the U.S. economy is so strong, non-U.S. journal costs on the whole have been increasing at less than 10% a year for the last three years, and it is reasonable to expect them to do so in 2001. Estimated increases for foreign journals range from 7% in the arts and humanities to 9% in the social sciences, as Table 6 indicates. Publications in the United States have hovered between 10% and 11% in the social sciences and the sciences during the same period. We advise budgeting for 10% increases in these areas and for about 8% increases in domestic arts and humanities titles. ■