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Periodical Price Survey 1996: Projecting the Electronic Revolution

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Projecting the Electronic Revolution While Budgeting for the Status Quo

By Lee Ketcham & Kathleen Born

AMERICAN LIBRARIES appear to be on the cusp of a periodical revolution. Traditional practices for buying, storing, and accessing journals are being challenged by the advent of electronic journals and electronic full-text periodical products that are stored remotely and delivered on demand via the Internet. The migration to full-text electronic products and/or document delivery services, coupled with ongoing programs of hefty cancellations due to spiraling serials prices and stagnant budgets, is bound to have major impact on the marketplace.

This year's periodical price study looks at these and other trends, including pricing and currency issues, which will affect the cost of subscriptions in 1997. Three Institute for Scientific Information (ISI) databases—Arts and Humanities Citation Index, Social Sciences Citation Index, and Science Citation Index—provide the 4,957 titles used in the core study. Most of the charts

in the article are derived from an analysis of the ISI databases and reflect the subscription lists of research libraries. For smaller academic libraries, we have included an analysis of approximately 2000 journals indexed in EBSCO Publishing's Academic Search. For public and school libraries there is a brief analysis of Magazine Article Summaries, a popular-periodical index produced by EBSCO Publishing.

Cost history and other information for each of the studies was pulled from EBSCO Subscription Services' database

of more than 256,000 serials 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 are current as of February 15, 1996.

New technology, new choices

The explosion of access options made possible by the Internet is fueling a whole new round of debate among librarians on how they spend serials dollars. More and more libraries are canceling expensive, esoteric, and rarely used journals and redirecting a portion of the savings to offer free, direct, on-demand article delivery service to patrons. The trend toward document delivery is not new, but the growing acceptance for using library dollars to buy access is. This move away from purchasing journal subscriptions to purchasing journal articles is but one factor driving the revolution in the serials marketplace.

The advent in 1995 of fully indexed, electronic periodical collections stored on a remote host and delivered over the Internet promises to shake up the market even more. While some libraries have already begun to cancel duplicate paper subscriptions, others are waiting for the new products to stabilize and mature before canceling paper copies and running the risk of gaps down the road. But many expect that full-text, and eventually full-image, periodical products will result in a conve-

TABLE 1:
AVERAGE 1996 PRICE FOR
SCIENTIFIC DISCIPLINES

Title	Avg. Price Per Title
Physics	\$1,354.80
Chemistry	1,239.26
Astronomy	1,007.22
Math & Computer Science	749.84
Biology	717.43
Engineering	715.78
Technology	643.58
Geology	627.13
Botany	562.71
Zoology	536.83
Food Science	515.12
General Science	504.33
Health Sciences	486.35

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nient, cost-effective alternative to paper subscriptions. If true, there is no doubt that the resulting cancellations will speed the development of new economic models for the buying and selling of serial publications.

Electronic journals

A third factor on the horizon is the rapid emergence of electronic journals. The Association of Research Libraries' (ARL) 1995 Directory of Electronic Journals, Newsletters and Academic Discussion Lists identifies a total of 139 peer-reviewed E-journals. Only 13 of the 139 (9%) charge a subscription fee. The rest are free, a phenomenon that probably reflects the experimental nature of the medium rather than a trend on the part of the publishers. At the high

end of the priced titles is the \$4500 Current Opinions in Medicine, from Britain's Current Science Group, Ltd. The average cost of the 13 priced E-journals is \$754 per year. One of these titles adds a modest "per retrieval" charge, and several offer stepped prices for additional simultaneous users. Almost all of the priced E-journals are in scientific or medical fields.

Some scholarly publishers are offering the electronic version of their journals to print subscribers at no additional cost. Publishers are undoubtedly waiting to establish new pricing models for E-journals until they see substantial numbers of subscribers moving toward electronic in lieu of print subscriptions. It may be unrealistic to assume that the change to electronic journal formats will

save libraries money in the long run. (For a broader picture of this issue, see Carol Tenopir & Donald W. King's "Setting the Record Straight on Journal Publishing: Myth vs. Reality," *LJ*, March 15, p. 32-35.) One publisher estimates the savings at a modest 10%, the discount he offers to subscribers who want only the electronic version.

The acquisition, storage, and use of electronic journals raise difficult issues for libraries. An ARL survey in 1994 identified only 35 ARL libraries that had begun to provide access to E-journals. While the more sophisticated libraries struggle with the technical and procedural issues, the rest of the library world waits to see how price, access, and storage questions will be resolved. Few doubt that electronic journals will be a factor in the coming rev-

TABLE 2: COST HISTORY BY SUBJECT

Subject	Average No. of Titles 1992-96	Average Cost Per Title 1992	Average Cost Per Title 1993	% of Change '92-'93	Average Cost Per Title 1994	% of Change '93-'94	Average Cost Per Title 1995	% of Change '94-'95	Average Cost Per Title 1996	% of Change '95-'96	'92-'96 % of Change
Agriculture	194	\$238.02	\$276.38	16.12	\$288.31	4.32	\$321.57	11.54	\$377.51	17.40	58.60
Anthropology	37	119.71	128.72	7.53	140.86	9.43	158.16	12.28	173.81	9.90	45.19
Art & Architecture	58	90.98	97.68	7.36	99.52	1.88	104.86	5.37	111.48	6.31	22.53
Astronomy	20	680.69	840.31	23.45	765.07	-8.95	859.08	12.29	1,007.22	17.24	47.97
Biology	223	457.36	526.24	15.06	543.81	3.34	608.25	11.85	717.43	17.95	56.86
Botany	62	351.14	416.77	18.69	426.37	2.30	480.70	12.74	562.71	17.06	60.25
Business & Economics	238	168.08	190.55	13.37	204.51	7.33	236.54	15.66	280.86	18.74	67.10
Chemistry	183	809.53	933.74	15.34	949.80	1.72	1,045.50	10.08	1,239.26	18.53	53.08
Education	87	104.21	121.54	16.63	126.98	4.48	138.59	9.14	152.88	10.31	46.70
Engineering	240	443.62	493.21	11.18	535.18	8.51	588.47	9.96	715.78	21.63	61.35
Food Science	17	339.34	389.50	14.73	401.81	3.16	444.64	10.66	515.12	15.85	51.80
General Science	75	327.08	370.40	13.24	393.94	6.36	437.83	11.14	504.33	15.19	54.19
General Works	75	61.30	65.92	7.54	71.63	8.66	75.88	5.93	87.82	15.74	43.26
Geography	62	235.10	270.29	14.97	289.30	7.03	325.46	12.50	373.52	14.77	58.88
Geology	79	389.48	449.09	15.31	470.21	4.70	522.22	11.06	627.13	20.09	61.02
Health Sciences	1,379	314.58	353.16	12.26	371.00	5.05	413.30	11.40	486.35	17.67	54.60
History	185	65.13	69.60	6.86	74.15	6.54	81.87	10.41	88.94	8.64	36.56
Language & Literature	305	62.94	68.06	8.13	69.73	2.45	76.52	9.74	86.92	13.59	38.10
Law	91	80.70	91.39	13.25	93.86	2.70	101.25	7.87	113.02	11.62	40.05
Library & Information Science	61	128.81	139.28	8.13	147.78	6.10	165.37	11.90	182.13	10.13	41.39
Math & Computer Science	162	473.21	530.80	12.17	584.06	10.03	638.54	9.33	749.84	17.43	58.46
Military & Naval Science	8	90.75	103.63	14.19	117.13	13.03	136.75	16.75	151.00	10.42	66.39
Music	42	50.05	54.68	9.25	54.72	0.07	59.47	8.68	62.58	5.23	25.03
Philosophy & Religion	136	77.75	88.19	13.43	89.23	1.18	99.72	11.76	110.90	11.21	42.64
Physics	181	857.15	1,005.03	17.25	1,031.59	2.64	1,141.05	10.61	1,354.80	18.73	58.06
Political Science	55	103.30	118.08	14.31	124.29	5.26	140.58	13.11	162.62	15.68	57.42
Psychology	130	141.64	156.12	10.22	171.66	9.95	192.08	11.90	217.51	13.24	53.57
Recreation	17	68.17	71.41	4.75	77.25	8.18	79.79	3.29	89.89	12.66	31.86
Sociology	246	133.98	146.89	9.64	156.98	6.87	173.91	10.78	198.47	14.12	48.13
Technology	187	390.73	437.91	12.07	484.16	10.56	538.45	11.21	643.58	19.52	64.71
Zoology	109	348.94	395.92	13.46	417.24	5.38	466.48	11.80	536.83	15.08	53.85

olution. The big question is whether they will make the cost of acquiring serials information more affordable.

Technology and cost

If a revolution is indeed underway in the serials world, it is too soon to tell its effect on the cost of periodicals. There is abundant anecdotal evidence on both cancellations and cost-effective, electronic alternatives to purchasing print subscriptions, yet this year's price study does not show higher-than-usual base rate increases from 1995 to 1996. A few publishers admit openly that their rate increases in 1997 will contain extra percentage points to compensate for lost subscribers. However, many of the major publishers are giving early indications that price increases for 1997 will be within the 10% range of inflationary increases seen over the last several years. For most libraries, despite all of these changes in the marketplace, next year's periodical decisions will involve primarily print journals and modest shifts from paper to electronic formats. The traditional price study information here will help in planning next year's traditional serials purchases.

Cost trends by discipline

Scientific, technical, and medical (STM) publications continue to dominate the top of the price hierarchy, as Table 1 indicates. The 13 highest price averages are, in fact, all in STM fields. The average price of a physics journal is now \$1,355, with chemistry not far behind at \$1,239. Eleven other disciplines are consistently found in the top of the price charts: Astronomy, Math & Computer Science, Biology, Engineering, Technology, Geology, Botany, Zoology, Food Science, General Science, and Health Sciences.

Price histories for all major disciplines are detailed in Table 2. Table 3A shows the impact of the last four subscription renewal seasons on the library budget, with cumulative increases ranging from 23% to 67% in the various disciplines. Compared to the same chart in last year's study, the median increase has risen from about 43% to about 53%. This is due primarily to the effect of a weaker U.S. dollar when 1996 periodicals were purchased as compared to the year before.

Table 3B, which extracts the rate of change for each discipline from 1995 to 1996, illustrates the difficulty of predicting rate increases in any given discipline from one year to the next. For example, Engineering titles averaged the highest per-

TABLE 3: PERCENTAGE OF CHANGE BY SUBJECT 1992-96

3A: 1992-96		3B: 1995-96	
Subject	% of Change	Subject	% of Change
Business & Economics	67.10	Engineering	21.63
Military & Naval Science	66.39	Geology	20.09
Technology	64.71	Technology	19.52
Engineering	61.35	Business & Economics	18.74
Geology	61.02	Physics	18.73
Botany	60.25	Chemistry	18.53
Geography	58.88	Biology	17.95
Agriculture	58.60	Health Sciences	17.67
Math & Computer Science	58.46	Math & Computer Science	17.43
Physics	58.06	Agriculture	17.40
Political Science	57.42	Astronomy	17.24
Biology	56.86	Botany	17.06
Health Sciences	54.60	Food Science	15.85
General Science	54.19	General Works	15.74
Zoology	53.85	Political Science	15.68
Psychology	53.57	General Science	15.19
Chemistry	53.08	Zoology	15.08
Food Science	51.80	Geography	14.77
Sociology	48.13	Sociology	14.12
Astronomy	47.97	Language & Literature	13.59
Education	46.70	Psychology	13.24
Anthropology	45.19	Recreation	12.66
General Works	43.26	Law	11.62
Philosophy & Religion	42.64	Philosophy & Religion	11.21
Library & Information Science	41.39	Military & Naval Science	10.42
Law	40.05	Education	10.31
Language & Literature	38.10	Library & Information Science	10.13
History	36.56	Anthropology	9.90
Recreation	31.86	History	8.64
Music	25.03	Art & Architecture	6.31
Art & Architecture	22.53	Music	5.23

TABLE 4: AVERAGE PRICE PER TITLE BY COUNTRY 1996

Country	No. of ISI Titles	Avg. Price Per Title	Country	No. of ISI Titles	Avg. Price Per Title
The Netherlands	374	\$1,303.84	Sweden	17	240.65
Switzerland	128	1,042.22	Singapore	7	196.43
Ireland	44	964.52	Czech Republic	10	191.04
Austria	21	944.49	Israel	11	181.95
Germany	350	681.26	Spain	9	174.19
England	1,087	548.41	Norway	26	170.91
China	6	417.21	Australia	57	167.81
Denmark	55	381.46	Italy	67	149.69
Japan	83	318.23	Canada	108	110.61
Scotland	26	311.25	Belgium	16	97.75
France	154	301.34	Brazil	6	93.50
United States	2,265	293.03	Mexico	7	67.86
New Zealand	22	279.84	India	9	48.33
Russia	44	247.60	South Africa	13	47.80

AVERAGE COST OF AN ISI TITLE: \$465.04

centage of increase this past year (almost 22%). In 1995, they were near the bottom of the list, increasing less than 10%.

Cost trends by country of origin

Tables 4 and 5 organize pricing information on the ISI titles according to

country of origin. Country of origin information is important to a library's budgeting process for two reasons: 1) as a measure of the impact of foreign exchange rates on the library's purchasing power; and 2) as a measure of the pricing trends of the large European STM

publishers, whose data dominate their various countries of origin on these charts. Many of the major STM publishers are located in the countries at the top of Table 4, which explains the high average cost of publications from those countries.

TABLE 5: COST HISTORY BY CONTINENT/COUNTRY OF ORIGIN

Continent/Country	Average No. of Titles 1992-96	Average Cost 1992	Average Cost 1993	% of Change '92-'93	Average Cost 1994	% of Change '93-'94	Average Cost 1995	% of Change '94-'95	Average Cost 1996	% of Change '95-'96	'92-'96 % of Change
NORTH AMERICA											
United States	2252	\$190.21	\$210.85	10.85	\$233.99	10.97	\$261.31	11.68	\$293.03	12.14	54.06
Canada	106	84.89	85.87	1.15	95.57	11.30	100.73	5.40	110.61	9.81	30.30
Other	8	41.88	46.81	11.79	54.81	17.09	56.83	3.69	61.69	8.54	47.31
Average for all N. America	2,366	185.07	204.77	10.64	227.16	10.93	253.24	11.48	283.98	12.14	53.45
EUROPE											
France	153	\$198.49	\$226.01	13.86	\$230.57	2.02	\$259.37	12.49	\$301.34	16.18	51.82
Germany	331	440.48	534.29	21.30	515.31	-3.55	570.53	10.72	681.26	19.41	54.66
Ireland	44	600.37	732.67	22.04	696.83	-4.89	751.95	7.91	964.52	28.27	60.65
Italy	66	134.46	133.55	-0.68	134.33	0.58	144.45	7.53	149.69	3.63	11.33
The Netherlands	350	773.28	950.43	22.91	987.81	3.93	1,027.08	3.98	1,303.84	26.95	68.61
Switzerland	129	609.12	680.73	11.76	729.99	7.24	845.31	15.80	1,042.22	23.29	71.10
United Kingdom	1,081	366.86	392.89	7.10	426.47	8.55	468.61	9.88	541.54	15.56	47.61
Other	226	227.00	260.21	14.63	242.08	-6.97	278.85	15.19	312.08	11.92	37.48
Average for all Europe	2,379	424.22	486.58	14.70	500.50	2.86	550.63	10.01	660.93	20.03	55.80
ASIA											
Japan	82	\$211.76	\$233.77	10.39	\$287.73	23.08	\$297.65	3.45	\$318.23	6.91	50.28
Other	43	122.96	128.86	4.80	140.37	8.93	149.29	6.35	161.95	8.48	31.71
Average for all Asia	125	180.97	197.39	9.08	237.04	20.08	246.25	3.89	264.89	7.57	46.38
AUSTRALIA & NEW ZEALAND											
	79	\$139.47	\$146.96	5.37	\$160.17	8.98	\$175.30	9.45	\$199.01	13.52	42.69
SOUTH AMERICA											
	17	\$60.39	\$65.92	9.15	\$74.56	13.11	\$76.62	2.76	\$81.51	6.37	34.96
AFRICA											
	16	\$58.94	\$64.85	10.03	\$62.72	-3.29	\$66.63	6.25	\$70.40	5.65	19.45

TABLE 6: COST HISTORY BY BROAD SUBJECT

	Average No. of Titles 1992-96	Average Cost Per Title 1992	Average Cost Per Title 1993	% of Change	Average Cost Per Title 1994	% of Change	Average Cost Per Title 1995	% of Change	Average Cost Per Title 1996	% of Change	'92-'96 % of Change
ARTS & HUMANITIES CITATION INDEX											
U.S.	540	\$55.16	\$59.67	8.2	\$63.70	6.8	\$68.41	7.4	\$73.33	7.2	32.9
Non-U.S.	595	105.91	117.48	10.9	118.70	1.0	131.31	10.6	147.97	12.7	39.7
SOCIAL SCIENCES CITATION INDEX											
U.S.	1,513	\$141.00	\$155.06	10.0	\$170.87	10.2	\$188.54	10.3	\$210.73	11.8	49.5
Non-U.S.	1,536	284.58	322.62	13.4	336.98	4.5	370.14	9.8	440.68	19.1	54.9
SCIENCE CITATION INDEX											
U.S.	1,124	\$312.46	\$347.16	11.1	\$385.89	11.2	\$433.36	12.3	\$487.94	12.6	56.2
Non-U.S.	1,761	542.84	625.38	15.2	640.32	2.4	706.13	10.3	848.84	20.2	56.4

More than 75% of the major publishers with whom EBSCO does business set their 1996 subscription rates in U.S. dollars. This means that roughly 90% of expenditures by American libraries for foreign titles in 1996 were priced in U.S. dollars. While this practice simplifies the purchase of European journals for U.S. libraries, it does make it more difficult to track price changes of foreign publications over a period of years. When looking at Tables 4 and 5, it helps to remember that most Euro-

pean publishers have held the line of inflation at around 10% for the last several years. As a rule of thumb, price increases for European journals that are higher or lower than 10% reflect the effect of currency exchange rates rather than true price increases. The 10% rule holds true, in fact, for most scholarly publishers worldwide.

The foreign-domestic price gap

According to the data in Table 6, where each of the ISI indexes is broken into U.S. and non-U.S. publications, the average foreign title is just about double

the cost of the average U.S. title across the board. This is not the effect of currency fluctuation, because the comparison has held true for all seven years for which we have data, despite the ups and downs of the dollar over those same years.

Currency fluctuation nonetheless plays an important role in the cost of journals to U.S. libraries. Chart 1 traces the percentage change in the average cost of U.S. and non-U.S. subscriptions over a four-year period and the corresponding percentage change in the exchange rate for a composite of European currencies during the renewal season.

Simply stated, as the exchange rate line dips, the European currencies weaken (i.e., the U.S. dollar strengthens), and U.S. libraries pay less for European publications.

Last year was not a good one to buy foreign publications with the U.S. dollar. Between the fall of 1994 and June 1995, when some of the larger European publishers began to set U.S. rates, the dollar weakened by about 9%—a significant decline. As a result, U.S. libraries saw average price increases of around 20% in 1996 for both Science and Social Science journals.

TABLE 7: 1997 COST PROJECTIONS BY BROAD SUBJECT

	No. of Titles	% of List	1995 Cost	% of Cost	Projected % of Increase	Projected 1996 Cost	% of Cost	Projected Overall % Increase
ARTS AND HUMANITIES CITATION INDEX								
U.S.	530	51.3	\$38,863	34.3	8.0	\$41,972	34.3	8.0
Non-U.S.	504	48.7	74,579	65.7	8.0	80,545	65.7	
SOCIAL SCIENCES CITATION INDEX								
U.S.	1,471	50.8	\$309,981	33.1	10.5	\$342,529	33.2	10.2
Non-U.S.	1,423	49.2	627,093	66.9	10.0	689,802	66.8	
SCIENCE CITATION INDEX								
U.S.	1,063	39.0	\$518,676	26.9	11.0	\$575,730	27.0	10.6
Non-U.S.	1,660	61.0	1,409,071	73.1	10.5	1,557,023	73.0	
PROJECTED OVERALL INCREASE FOR ALL ISI TITLES: 10.4%								

Periodical Prices for Public and School Libraries

The titles in EBSCO Publishing's general index, Magazine Article Summaries, are those most often subscribed to by school and public libraries in the United States, based on data from EBSCO Subscription Services. Table 9 provides historical data for approximately 350 titles in the index. For 1996 the average cost of a U.S. and non-U.S. title combined was \$41.89, up 7% over the previous year.

The 5.3% increase in the U.S. titles in 1995 may be largely due to the

30% rise in paper costs, an effect that is always felt more sharply in consumer publishing than in academic publishing. Next year should be a better one for buyers. Paper costs have stabilized, and advertising rates, which have been slipping in recent years and driving up subscription costs as a consequence, have also stabilized. We forecast an

overall increase of about 3.5% for popular magazines.

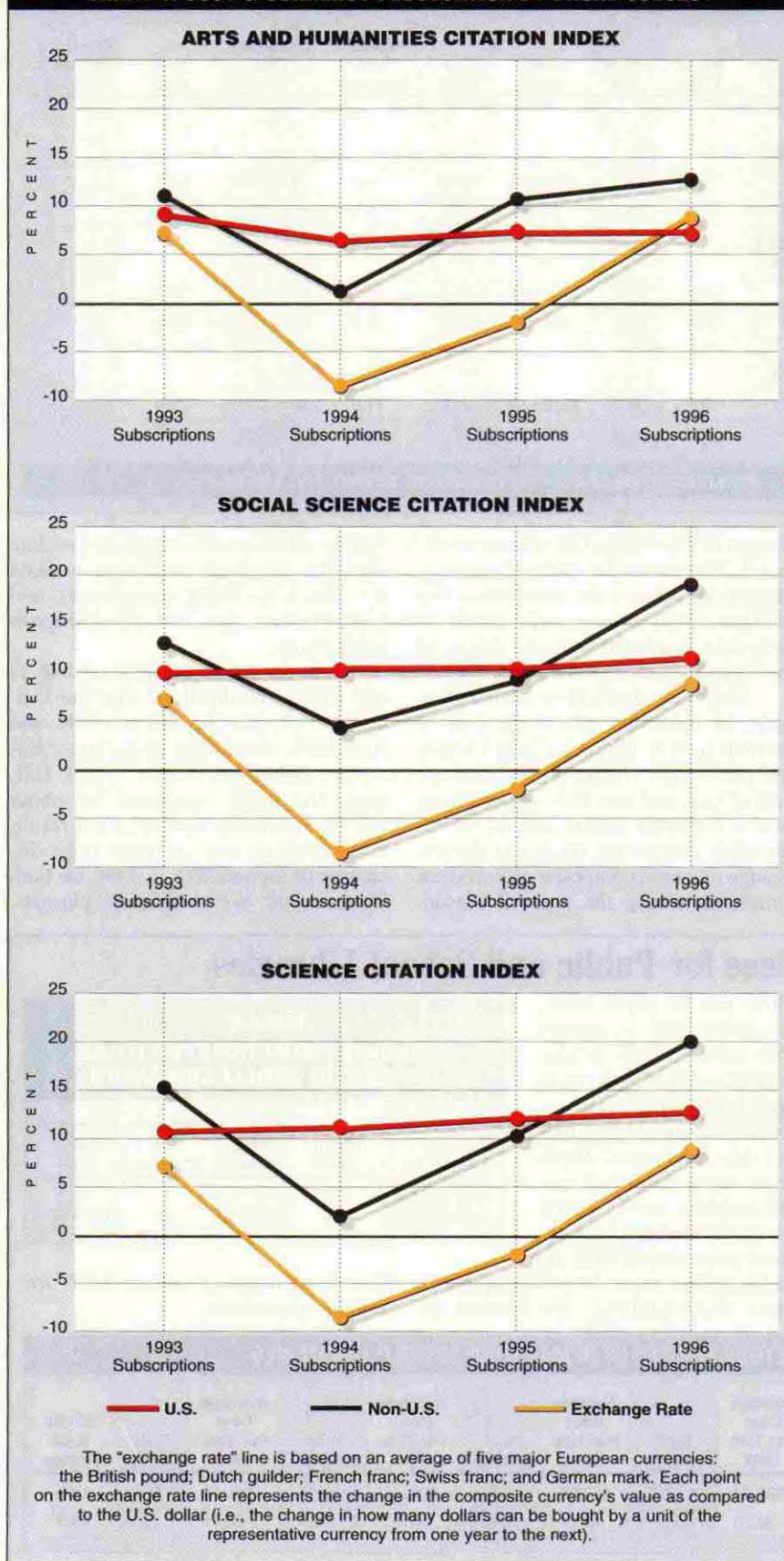
TABLE 8: 1997 COST PROJECTIONS FOR TITLES IN MAGAZINE ARTICLE SUMMARIES

Index	No. of Titles	1996 Cost	Projected % of Increase	Projected 1997 Cost
Mag. Article Summaries	354	\$14,796	3.5	\$15,314

TABLE 9: COST HISTORY FOR TITLES IN MAGAZINE ARTICLE SUMMARIES

Magazine Article Summaries	Average No. of Titles '92-'96	Average Cost Per Title 1992	Average Cost Per Title 1993	% of Change	Average Cost Per Title 1994	% of Change	Average Cost Per Title 1995	% of Change	Average Cost Per Title 1996	% of Change	'92-'96 % of Change
U.S.	326	\$35.22	\$36.84	4.6	\$37.85	2.7	\$39.11	3.3	\$41.18	5.3	16.9
Non-U.S.	22	40.35	38.23	-5.3	42.07	10.0	48.57	15.5	52.41	7.9	29.9

CHART 1: COST & CURRENCY FLUCTUATION BY BROAD SUBJECT



Arts and Humanities journals, which historically show smaller traditional base increases, went up an average of 12.7%. Last year we predicted that the average increase for all ISI titles in the study would be 16.4%. Because of the continual decline of the dollar between February, when the article was written, and June, when prices were set, the actual increase was about a percentage point higher, at 17.6%.

Budgeting for 1997

Most major scholarly publishers are estimating increases next year in the 9–11% range, which is slightly lower than the 10–12% range predicted last year. Increases in this range are expected to cover inflation, page increases, cancellations, postage hikes, etc. With a few exceptions, publisher predictions are within recent norms for base price increases.

Foreign publishers will be dealing with a major new factor when they set prices for 1997. In 1994 the Universal Postal Union, the agency of the United Nations that establishes reimbursement rates for international postage handling, passed a resolution to increase rates by January 1997. Its meeting will not take place until December 1996, months after most subscription rates are set by publishers. Publishers all over the world will, therefore, have to guess at the effect of the new rates on their costs, and their estimates may raise prices for 1997 beyond the 10% being projected now.

Currency exchange may not have much of an effect on the cost of European subscriptions for U.S. libraries in 1997. The dollar has been fairly stable since prices were set for 1996 subscriptions. In fact, it is slightly stronger. If that trend continues, increases should stay at or slightly below the 9–11% range overall.

After looking at price history in the broad subject areas, at publisher predictions about base rate increases, and at currency trends, we are forecasting an average increase of 10.4% for the ISI titles in the study. Separate projections are provided in Table 7 for broad subject areas covered in the three indexes: Arts and Humanities, Social Sciences, and Sciences. Projected increases for domestic publications are 8%, 10.5%, and 11%, respectively. Projected increases for foreign publications are 8%, 10%, and 10.5%, respectively. As always, the careful budget manager will adjust these predictions as new information from publishers, vendors, and economists becomes available later in the year. ■

Periodical Prices for College and Medium-Sized University Libraries

Titles in the three ISI indexes that comprise the core of this price study range from widely held, basic academic journals to highly esoteric and specialized publications, many of which are beyond the budgets and the needs of mid-sized and smaller academic institutions. For this reason, we include an analysis of the titles in EBSCO Publishing's Academic Search, an indexing and abstracting service for core academic journals.

In Table 11, the 1700 titles in this index are arranged by subject so that

cost trends in a given discipline can be seen. Comparing both average cost per discipline and rate of increase for this core list to the data shown in Table 2, drawn from the comprehensive ISI title list, may be helpful as a planning tool for librarians whose periodical collections fall somewhere between these two groups in terms of comprehensiveness.

As shown in Table 10, only 20% of these core titles are published outside the United States, but they comprise 42% of the total cost of the list. We estimate that the non-U.S. publications will increase by 8.5% in 1997, while domestic publications are projected to go up by 9%. The overall average increase for the titles in this index will be somewhere in the range of 8.8%.

TABLE 10: 1996 COST PROJECTIONS FOR TITLES IN ACADEMIC SEARCH

Academic Search	No. of Titles	% of List	1995 Cost	% of Cost	Projected % Of Increase	Projected 1996 Cost	% of Cost	Projected Overall % Increase
U.S.	1,373	80.4	\$131,128	57.9	9.0	\$142,930	58.0	8.8
Non-U.S.	334	19.6	95,273	42.1	8.5	103,371	42.0	

TABLE 11: COST HISTORY FOR TITLES IN ACADEMIC SEARCH

Subject	Average No. of Titles 1992-96	Cost Per Title 1992	Average Cost Per Title 1993	Average % of Change '92-'93	Cost Per Title 1994	Average % of Change '93-'94	Cost Per Title 1995	Average % of Change '94-'95	Cost Per Title 1996	Average % of Change '95-'96	'92-'96 % of Change
Agriculture	36	\$37.52	\$37.72	0.53	\$38.90	3.13	\$40.71	4.65	\$42.84	5.23	14.18
Anthropology	25	99.72	103.16	3.45	114.93	11.41	128.26	11.60	147.32	14.86	47.73
Art & Architecture	41	42.40	46.83	10.45	48.12	2.75	51.06	6.11	52.46	2.74	23.73
Astronomy	5	24.36	26.49	8.74	26.39	-0.38	26.38	-0.04	28.98	9.86	18.97
Biology	26	179.19	200.92	12.13	216.65	7.83	238.84	10.24	263.77	10.44	47.20
Botany	3	101.67	118.33	16.39	121.67	2.82	128.67	5.75	139.33	8.28	37.04
Business & Economics	434	125.93	140.87	11.86	155.90	10.67	175.30	12.44	202.81	15.69	61.05
Chemistry	4	821.18	868.54	5.77	928.49	6.90	1,046.81	12.74	1,178.64	12.59	43.53
Education	145	75.64	86.13	13.87	90.77	5.39	98.12	8.10	107.82	9.89	42.54
Engineering	51	62.50	65.32	4.51	69.03	5.68	72.70	5.32	80.11	10.19	28.18
Food Science	33	39.14	40.40	3.22	42.57	5.37	45.46	6.79	50.57	11.24	29.20
General Science	22	107.11	113.10	5.59	122.65	8.44	134.11	9.34	144.62	7.84	35.02
General Works	111	32.77	34.23	4.46	35.49	3.68	36.28	2.23	38.34	5.68	17.00
Geography	23	69.04	71.50	3.56	82.31	15.12	85.46	3.83	87.88	2.83	27.29
Geology	12	140.35	155.30	10.65	159.66	2.81	168.83	5.74	186.24	10.31	32.70
Health Sciences	139	102.24	110.36	7.94	115.86	4.98	123.05	6.21	137.64	11.86	34.62
History	152	55.04	59.33	7.79	63.11	6.37	67.62	7.15	72.60	7.36	31.90
Language & Literature	158	47.86	51.04	6.64	53.59	5.00	57.01	6.38	61.01	7.02	27.48
Law	35	85.66	92.67	8.18	97.56	5.28	106.31	8.97	122.22	14.97	42.68
Library & Info Science	55	93.66	101.25	8.10	104.31	3.02	115.93	11.14	130.19	12.30	39.00
Math & Computer Science	26	109.45	127.52	16.51	134.12	5.18	142.45	6.21	158.60	11.34	44.91
Military & Naval Science	12	33.38	38.38	14.98	42.58	10.94	45.13	5.99	47.50	5.25	42.30
Music	20	43.52	45.76	5.15	50.55	10.47	53.03	4.91	56.23	6.03	29.20
Philosophy & Religion	65	56.90	63.96	12.41	65.20	1.94	70.64	8.34	78.41	11.00	37.80
Physics	6	104.67	142.67	36.30	150.33	5.37	158.00	5.10	172.00	8.86	64.33
Political Science	54	65.11	67.14	3.12	73.42	9.35	77.57	5.65	86.11	11.01	32.25
Psychology	54	134.25	145.35	8.27	156.69	7.80	177.91	13.54	194.94	9.57	45.21
Recreation	16	39.50	43.81	10.91	46.64	6.46	52.08	11.66	53.33	2.40	35.01
Sociology	203	97.52	112.43	15.29	120.36	7.05	131.04	8.87	145.21	10.81	48.90
Technology	76	87.94	93.91	6.79	101.28	7.85	105.21	3.88	118.33	12.47	34.56
Zoology	8	96.45	108.78	12.78	123.72	13.73	126.80	2.49	132.20	4.26	37.07