

A Ranking of Finance Programs in the Asia-Pacific Region: An Update

Kam C. Chan ^a, Carl R. Chen ^{b*}, Peter P. Lung ^b

^aDepartment of Finance, Western Kentucky University, Bowling Green, KY 42101

^bDepartment of Economics and Finance, University of Dayton, Dayton, OH 45469-2251

Abstract

We provide a ranking of finance programs in the Asia-Pacific region using a set of 21 finance journals during the period of 1990-2004. A total of 170 universities are ranked. The top five universities are Hong Kong University of Science and Technology, Hong Kong Polytechnic University, Chinese University of Hong Kong, Nanyang Tech University, and the University of New South Wales, respectively. An interesting finding is that Asia-Pacific universities' share of worldwide publications continues to rise over the fifteen years periods. The findings from subperiod analyses suggest that a majority of the top 25 Asia-Pacific universities have experienced an explosive growth in finance research during the second half of the 1990s.

* Corresponding author: Carl R. Chen, Department of Economics and Finance, University of Dayton, Dayton, OH 45469-2251. Tel: +1-937-229-2418, Fax: +1-937-229-2477, E-mail: chen@udayton.edu.

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1. Introduction

Popular media and academicians always show interest in the ranking of academic institutions. Such a ranking offers information to students and parents in making enrollment decisions, employers making hiring decisions, employees making employment decisions, and institutions making resource allocation decisions. Therefore, it is not surprised that some institutions closely monitor their respective ranking and sometimes publicize such ranking.¹

There are a number of studies on the ranking of business programs. Most of these studies, however, examine a rather short period or confine to the North America region. Recent examples are Hasselback and Reinstein (1995) and Brown (1996) in accounting; Alexander and Mabry (1994), and Borokhovich Bricker, Brunarski, and Simkins (1995) in finance; Conby, Dusansky, Drukker, and Kildegarrd (1995) and Scott and Mitias (1996) in economics; Niemi (1988) and Bakir, Vitell and Rose (2000) in marketing. Recently, Chan et al (2001) offer a study of finance program ranking in the Asia-Pacific region. Besides a ranking of 97 finance programs during 1990-99, they suggest that the top programs in the region achieved a comparable performance of North American (US and Canada) programs.

Because the original Chan, Chen, and Steiner (2001) study has received great interest,² the objective of this paper is to provide an update to their study. Our study is related to their study but differ in several ways. First, we study a longer period from 1990-2004. The addition of more recent information enables us to examine the progress of finance research in the region because the emphasis in finance research is a more recent endeavor in many Asian countries.

Second, our study employs an updated journal set that includes several newer and high impact journals. Hence, the results are more accurate in depicting the research productivity of the universities in the region. Third, we investigate the variations of the research productivity across the top finance programs in the region.

Our findings suggest that the top five universities are Hong Kong University of Science and Technology, Hong Kong Polytechnic University, Chinese University of Hong Kong, Nanyang Technological University, and the University of New South Wales respectively. This pecking order has changed dramatically in the past fifteen years. For example, Hong Kong University of Science and Technology was ranked the 10th during the period from 1990 to 1994, while Hong Kong Polytechnic University was ranked 47th during the same period. Our new ranking (with additional information from several more journals and additional years) is moderately different from the results of Chan et al (2001). We find the aggregate research productivity of Asia-Pacific finance programs continue to improve in absolute and relative productivity measures over the last fifteen years. Specifically, the absolute productivity in terms of *Journal of Finance* equivalent pages has increased almost nine times while the relative productivity in terms of percentage share of worldwide finance literature production steadily rises from 2.39% in 1990 to 10.42% in 2004. The subperiod analyses show an explosive growth in financial research during the second half of the 1990s. Although the leading institutions in early 1990s such as the University of New South Wales and National University of Singapore still show good improvement in finance research, new comers such as Hong Kong University of Science and Technology outranks these leaders with a tremendous increase in research output.

¹ For example, see <http://www.bm.ust.hk/econ-fina-ranking-2002/>

² The article was the most requested paper in 2001 in ECONbase among all the papers published in the *Journal*.

The rest of the paper is organized as follows: Section 2 discusses the data. Section 3 presents the ranking results; for both the whole sampling period and the subperiods. Section 4 concludes.

2. Data

We collect the Asia-Pacific research productivity data from hard copies of a set of 21 leading finance journals for the period 1990-2004. The data include each author's name, his or her affiliation, and the total pages of each article. The set of 21 finance journals are: *Journal of Finance*, *Journal of Financial Economics*, *Review of Financial Studies*, *Journal of Business*, *Journal of Financial and Quantitative Analysis*, *Financial Management*, *Journal of Corporate Finance*, *Journal of Empirical Finance*, *Journal of Financial Markets*, *Journal of Financial Research*, *Journal of Banking and Finance*, *Journal of Portfolio Management*, *Financial Analysts Journal*, *Financial Review*, *Journal of Financial Intermediation*, *Journal of Financial Services Research*, *Journal of Futures Markets*, *Journal of International Money and Finance*, *Journal of Business Finance and Accounting*, *Pacific-Basin Finance Journal*, and *Review of Quantitative Finance and Accounting*. Seventeen out of these twenty-one journals are identical to Chan et al (2001). We include the following four additional journals to our database: *Journal of Corporate Finance*, *Journal of Empirical Finance*, *Journal of Financial Markets*, and *Review of Quantitative Finance and Accounting*. These four new journals began publishing after 1990 and are either regarded as high quality journals in finance, or are popular among Asian authors. The dataset includes journals specialized in certain subject areas, such as *Journal of Futures Markets*, and *Journal of International Money and Finance*, as well as journals targeting finance

research in a geographical region, such as *Pacific-Basin Finance Journal*. Therefore, we are able to measure the research productivity of faculty with respect to their different research interests.

We follow the adjustment method in Chan et al (2001) to adjust the data. In case of N authors, we credit the contribution to each author and their respective institutions by $1/N$. When an author has M affiliations, we divide the credit to each institution with $1/M$. In addition, we check the manually collected data for accuracy when appropriate. It is quite common that an author may use slightly different names over his/her career and the names of institutions may change. We made the corrections if necessary. In addition, we use the Chan et al's (2001) method to convert total page counts for each article to *Journal of Finance* equivalent pages (hereafter *JF*-pages). Specifically, we randomly select three full text pages (no equations, no footnotes, and no graphs) from each journal and count the number of words in each page. Based on the counting and the three-page average, we obtain the number of words in a "typical" page for each journal. Then, we calculate an adjustment factor by using the words in each "typical" page in each journal as compared with a "typical" page in *Journal of Finance*. Following the reasons given in Chan et al (2002), we chose the JF-equivalent page count method to partially alleviate the journal quality disparity. This is because papers published in the top tier journals are, on average, longer than articles in other journals. For example, a typical full-length *Journal of Finance* article runs 35 – 40 pages, while a typical *Financial Review* article has approximately 15 pages (or 11.5 JF-equivalent pages).

In total, for the period of 1990-2004, all 21 journals contain 11,501 articles written by 8,593 different authors from 1,128 universities and 1,039 non-academic institutions with 212,489.55 *JF*-pages. Among these articles, there were 170 universities from the Asia-Pacific region with 778 authors who wrote 14,823.82 JF-equivalent pages.

3. Rankings of the Finance Programs in Asia-Pacific Region

In Table 1 we provide some summary statistics of the research productivity by countries in terms of JF-pages.³ Hong Kong has both the highest total JF-pages (4,436) and the highest average JF-pages (554.52) produced by its eight universities, follow by Singapore with 324.54 average JF-pages among its five institutions. Australia has 28 universities that publish, on average, 132.89 JF-pages. In terms of the number of universities, South Korea has the highest number of universities publish in these 21 journals at 39.

What might have explained the variations of finance research across these Asia-Pacific countries? Shown in Table 1 Column 7 is the population of each country. Obviously, a country's population bears little relationship with the finance literature production. Among the most populated countries are China, Indonesia, and Japan, yet these countries produce small amount of finance research. Shown in Table 1 Column 8 is the per capita GDP (purchasing power parity adjusted). Clearly there are some relationships between the wealth of a nation and her ability to conduct finance research. Wealthy nations, on average, produces more finance literature with the exception of Japan and Macau. Table 1 Column 6 shows the origin of a country's legal system. All top four nations have an English common-law legal system. The only common-law country that produces little finance research is Malaysia. Since La Porta et al. (1998) find that common-law countries generally have the strongest protection for investors, therefore, it is conceivable that such countries forge more finance research.

Table 2 ranks all the 170 Asia-Pacific universities in terms of weighted *JF*-pages. The weights are by co-authorship and co-affiliation. The Table also presents the individual university

rank, name of the university, country in which the university is located, total number of weighted articles, and total numbers of unweighted articles (i.e., coauthored articles counted as one article for each coauthor). Comparing with Chan et al. (2001), 73 new institutions are ranked in this study. This result reflects the significant progress of finance research in the Asia-Pacific region. Obviously, these 73 universities began to publish only after late 1990s.

Hong Kong University of Science and Technology, Hong Kong Polytechnic University, and Chinese University of Hong Kong are in the top-3 positions, while Nanyang Technological University and the University of New South Wales round up in the top five. When comparing with Chan et al's (2001) previous ranking in their Table 1, we realize that Hong Kong Polytechnic University and Nanyang Technological University have replaced City University of Hong Kong and National University of Singapore in the top five. Moreover, all top-15 universities are in common-law countries. We also provide a diagram to show the distribution of the *JF*-pages of all 170 Asia-Pacific universities that published in the 21 finance journals. Figure 1 plots the cumulative percentage of the *JF*-pages against the cumulative number of Asia-Pacific universities (arranged from higher rank to lower rank). Similar to Chan et al's (2001) findings, the cumulative distribution is highly skewed as evidenced by the initial steep slope and later the curve turns flat. Specifically, the top 5, top 10, and top 20 universities accounts for approximately 31%, 49%, and 65% of all the *JF*-pages respectively. The implication of this skewness is that it may be easier for a university to move up from a relative lower position than from a higher position. For example, it takes merely additional 6.23 *JF*-pages to move from 100th rank (16.5 *JF*-pages) to 75th rank (22.73 *JF*-pages), but it will need additional 32.63 *JF*-pages to move the same 25 spots from 75th rank (22.73 *JF*-pages) to 50th rank (55.35 *JF*-pages). To move

³ We treat Hong Kong and Macau as de facto countries for the purpose of this analysis.

further from 50th rank to 25th rank will take additional 99.19 JF-pages.

In addition to the research productivity ranking, we compare our institutional ranking with the ranking of top Asian MBA programs compiled by the *Asiaweek* in 2000. To our best knowledge, *Asiaweek* is the only popular media that ranks Asian business programs. *Asiaweek* produces a list of “best full-time MBA programs” in the Asia region according to a composite score that includes academic reputation, student selectivity, financial resources, linkages, other resources, and graduate output. Surprisingly, we find substantial disparity between the *Asiaweek* ranking and our finance program ranking. Among the institutions ranked in *Asiaweek* as the “best MBA programs”, only 12 universities show up in our top 50. More specifically, the University of Melbourne was ranked the best MBA program in *Asiaweek*, but is the 9th ranked university in Table 2. Many prominent business programs are not ranked in *Asiaweek* because they did not participate in the survey. These universities include the University of New South Wales, the University of Sydney, Hong Kong Polytechnic University, Hong Kong University of Science and Technology, National Taiwan University, and Shanghai Jiaotong University, among others. *Asiaweek*’s ranking, therefore, is likely to have self-selection bias and it is subjective. Because the bias in the popular magazine ranking, it is rather informative to produce a finance program ranking based on research productivity.

Nevertheless, for those universities participated in the *Asiaweek* survey, some of the data compiled by the *Asiaweek* might shed some light on our analysis. For example, data such as academic reputation, student selectivity, and financial resources might bear some relationship with our ranking. To match with our research productivity data, 56 Asian universities are ranked both by this study and the *Asiaweek*.⁴ The pair wise correlations between these variables and our

measure of finance research are reported in Table 3 Panel A. We find that JF-pages is highly correlated with the financial resources with a correlation coefficient of 0.4179, and it is statistically significant. However, the correlation coefficients between JF-pages and academic reputation and student selectivity are only 0.2246 and 0.1550, respectively, and they are either barely significant or not significant at all. Since academic reputation measurement is based upon highly subjective survey, it appears that financial resources is the only variable that is correlated with finance research.

Results of a multiple regression analysis are reported in Table 3 Panel B. Consistent with the simple correlations in Panel A, we find financial resources is the only significant variable used in *Asiaweek* that bears some relationship with finance research.

To measure the research progress of the Asia-Pacific universities over the period of 1990-2004, we examine the absolute and relative amount of JF-pages published by the universities in the region over time. The results are presented in Table 4. In terms of total JF-pages published, the Asia-Pacific universities as a group published 224.94 JF-pages in 1990 and steadily increased to 2,171.13 JF-pages in 2004, except a small dip in 1993 and 2003. Table 4 Column 3 shows annual percentage increases in JF-pages from the base year of 1990 for Asia-Pacific universities. Over the 15 years period, JF-pages have increased 865%. During the same time period, worldwide JF-pages have increased also, but at a much smaller rate of 121%. In terms of relative

⁴ *Asiaweek* statistics are explained as follows: for academic reputations, each university was asked to rate its peers on a scale of 1 to 5 (with 5 being highest). Thirty Asian corporations and eleven foreign universities also gave ratings. Then, *Asiaweek* divided the total score of each university by the number of responses. Student selectivity is derived from several factors: the number of first-year students accepted compared with total applicants, enrollees compared with accepted students, and the median score of first-year students in the national or university entrance test. Two extra points were awarded to universities whose educational systems or individual policies severely restrict the number of university applicants. The higher the index of student selectivity means the better the performance of the university. Financial resources variable is calculated from total spending per student, library spending per student, Internet bandwidth and public computers and connection points. The money figures in the financial resources calculation were converted into purchasing power parity dollars that based on World Bank ratios.

share of the total worldwide productivity, the Asia-Pacific Universities increase from 2.39% to 10.42% over the same period. It is clear that, as a group, universities in the Asia-Pacific region have made tremendous progress in the last fifteen years. The findings suggest that the Asia-Pacific universities have been promoting faculty research and have been quite successful during 1990-2004. The success in more recent years can also be explained by the fact that many Asia-Pacific universities start their research programs only recently. Our results in Table 4 are consistent with Chan et al (2001) who find that Asia-Pacific Universities have improved their ranking substantially in 1995-99 when North American universities are used as benchmarks.

Table 5 provides a more detailed analysis of the progress in finance research for the top 25 finance programs in the region. We divide the entire period of 1990-2004 into three 5-year subperiods. To gauge the research progress, we compare the change of JF-pages between 1995-99 and 1990-94 and between 2000-04 and 1995-99. We have several interesting findings. First, both Hong Kong University of Science and Technology and Hong Kong Polytechnic University were not ranked high (10th and 47th, respectively) in the period of 1990-94, but advanced to the 1st and 2nd spots during the period of 2000-2004, respectively. Similarly, Massey University and Yuan Ze University did not even have any JF-pages in 1990-94 and they moved up to overall 23rd and 24th rank by virtue of their productivity in 2000-04.⁵ Second, when comparing the subperiods, the majority of these top universities experienced positive percentage increase in JF-pages. Explosive growth is found in the period of 1995-1999 when many universities evidenced triple digits growth rate in finance research. For example, Hong Kong Polytechnic University increased her research output 2,964% from 1990-94 to 1995-99. Almost equally impressive are RMIT University of Australia (1,894%), Hong Kong University of Science and Technology

(801%), Korea University (734%), and the University of Sydney (695%). The second half of the 1990s, therefore, is the period that many Asia-Pacific universities significantly shifted their focus and financial resources to encourage finance research. Overall, 22 and 20 out of these 25 universities had increases in JF-pages over the previous subperiods in 1995-99 and 2000-04, respectively. A few universities, however, show significant regressions in ranking. Examples are Korea Advanced Institute of Science and Technology (from 3rd rank to 32nd rank), Australian National University (from 8th rank to 30th rank), and National Chung Cheng University of Taiwan (from 22nd rank to 36th rank). Some of these universities may have lost their research stars to other competing universities.

In Table 6, we update the performance of Asia-Pacific universities using North American universities as benchmarks. Table 6 reports only the most recent five years results as the results of prior years were reported in Chan et al. (2001). Reported in Chan et al. (2001; Table 4), Hong Kong University of Science and Technology, the top spot Asia-Pacific university, was comparable to the 26-27th ranked North American universities in 1995-1999. During the period from 1999 to 2004, Hong Kong University of Science and Technology is now comparable to the 9th ranked North American university. This dramatic improvement of ranking is consistent with our results reported in Table 4 that Asia-Pacific universities' share of worldwide finance research has increased from 2.39% in 1990 to 10.42% in 2004. Many other Asia-Pacific universities, such as Hong Kong Polytechnic University and Nanyang Technological University have shown the same experience.⁶

⁵ Yuan Ze University was established in 1989. The low ranking in 1990-1994 reflects the short history of the university.

⁶ Although we use the JF-page counts for the ranking purpose, which partially mitigate the journal quality disparity, journal quality disparity may still exist and such a disparity may bias the direct comparison between specific North American universities and Asia-Pacific universities.

We also report the top 25 authors for the period based upon their JF-page counts. The results are in Table 7. The top five authors are Robert Faff, Kalok Chan, Wilson Tong, Michael Firth, and Larry Lang, respectively. Of these top five authors, four of them are from universities in Hong Kong. This is in line with the findings in Table 2 that many universities in Hong Kong are ranked in the top ten.

4. Summary

We update the finance research productivity among the Asia-Pacific universities using a set of 21 finance journals during the fifteen years period from 1990 to 2004. Weighted JF-page counts are used to account for co-authorships, co-affiliations, different fonts and different lengths in articles. During these 15 years period, countries/regions that produce the most finance research such as Hong Kong, Singapore, Australia, and New Zealand are all English common-law countries. A total of 170 universities are ranked, and the top five universities are Hong Kong University of Science and Technology, Hong Kong Polytechnic University, Chinese University of Hong Kong, Nanyang Technological University, and the University of New South Wales. Our updated ranking (we have added more journals and additional years) is moderately different from the results of Chan et al (2001).

We also find that the aggregate research productivity of Asia-Pacific finance programs continues to improve over the past fifteen years. Specifically, the absolute productivity in terms of *JF*-pages has increased almost nine times while the relative productivity in terms of the percentage share of worldwide finance research steadily rises from 2.39% in 1990 to 10.42% in 2004. The subperiod analyses show an explosive growth in finance research during the second half of the 1990s. Although the leading institutions in early 1990s such as the University of New

South Wales and National University of Singapore still show good improvement in finance research, new comers such as Hong Kong University of Science and Technology outranks these leaders with a tremendous increase in research output.

When we compare our ranking with the *Asiaweek* best MBA programs ranking, we find substantial disparity. Since *Asiaweek*'s ranking uses subjective survey, and many prominent universities did not participate in the survey, we believe *Asiaweek*'s ranking is biased and not credible. The bias found in the popular magazine ranking highlights the importance of our research. Among the factors used in the *Asiaweek* ranking, only financial resources is positively and significantly correlated with our ranking.

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Table 1. Summary statistics of finance program research productivity by country (1990-2004)

This table provides the mean JF-pages per institution in Asia-Pacific region by country. We use JF-equivalent page counts and the weights are co-authorship and co-affiliation adjusted. Data of legal system, population (2004), and purchasing power parity adjusted per capita GDP (2003) are taken from the World Fact Book published by the CIA. Population statistics is in thousands.

Country	Rank	Number of contributing universities	Mean JF-equivalent pages	Total JF-pages	Legal System	Population	Per Capita GDP/PPP
Hong Kong	1	8	554.52	4,436	Common	6,855	28,800
Singapore	2	5	324.54	1,623	Common	4,353	23,700
Australia	3	28	132.89	3,721	Common	19,913	29,000
New Zealand	4	7	104.70	732.9	Common	3,993	21,600
Taiwan	5	30	55.32	1,659	Civil	22,749	23,400
Korea	6	39	34.07	1,329	Civil	48,598	17,800
Japan	7	31	30.78	954	Civil	127,333	28,200
Thailand	8	4	23.58	94	Civil	64,865	7,400
Macau	9	1	20.34	20	Civil	445	19,400
China	10	9	17.26	155	Other	1,298,847	5,000
Philippines	11	2	15.00	30	Spanish	86,241	4,600
Indonesia	12	1	13.11	13	Roman	238,452	3,200
Malaysia	13	5	11.14	56	Common	23,522	9,000

Table 2. Ranking of Asia-Pacific Universities by Weighted JF-Equivalent Page Counts Appeared in 21 Leading Finance Journals

This table provides a ranking of Asia Pacific universities by weighted pages in 21 finance journals in 1990-2004. The weights are by co-authorship and co-affiliation. We also provide the numbers of unweighted articles as well as the country of the universities.

Rank	University	Wt number of articles	Unwt. Number of articles	JF-pages	Country
1	Hong Kong U Science Technology	61.04	137	1314.63	Hong Kong
2	Hong Kong Polytechnic U	46.08	104	909.45	Hong Kong
3	Chinese U Hong Kong	42.75	94	814.27	Hong Kong
4	Nanyang Tech U	43.46	104	777.04	Singapore
5	U New South Wales	41.53	74	763.04	Australia
6	National U Singapore	42.38	83	742.13	Singapore
7	City U Hong Kong	39.42	86	668.52	Hong Kong
8	U Sydney	28.78	73	473.59	Australia
9	U Melbourne	23.13	40	373.68	Australia
10	Monash U	23.25	45	371.92	Australia
11	Hong Kong Baptist U	18.08	43	285.92	Hong Kong
12	U Western Australia	15.43	37	269.81	Australia
13	U Hong Kong	15.79	37	268.89	Hong Kong
14	Australian National U	12.50	23	265.59	Australia
15	U Auckland	16.92	31	259.29	New Zealand
16	RMIT U	14.42	35	234.66	Australia
17	Korea Advanced Institute Science Technology	15.33	32	232.48	Korea
18	National Taiwan U	13.83	32	232.04	Taiwan
19	National Central U	13.17	28	212.86	Taiwan
20	Korea U	8.83	24	204.82	Korea
21	National Chung Cheng U	12.67	30	199.01	Taiwan
22	National Chengchi U	10.50	24	189.23	Taiwan
23	Massey U	7.38	21	170.68	New Zealand
24	Yuan Ze U	8.83	25	156.04	Taiwan
25	Victoria U Wellington	11.17	18	154.54	New Zealand
26	Lingnan U	7.83	13	152.35	Hong Kong
27	Griffith U	7.83	11	142.37	Australia
28	U Queensland	7.00	15	142.13	Australia
29	Hitotsubashi U	5.83	10	128.33	Japan

Rank	University	Wt number of articles	Unwt. Number of articles	JF-pages	Country
30	Seoul National U	4.58	12	112.17	Korea
31	U Newcastle	6.08	14	110.48	Australia
32	National Kaohsiung First U Science and Technology	6.50	10	106.75	Taiwan
33	Macquarie U	5.50	8	99.41	Australia
34	International U Japan	7.63	23	98.08	Japan
35	National Taiwan U Science and Technology	5.00	10	96.97	Taiwan
36	Yonsei U	4.25	10	96.13	Korea
37	Kobe U	5.83	8	94.36	Japan
38	Hanyang U	4.03	11	90.67	Korea
39	U Otago	6.04	16	82.15	New Zealand
40	Fu-Jen Catholic U	4.50	13	80.04	Taiwan
41	Singapore Management U	4.21	11	79.88	Singapore
42	U Tokyo	5.00	7	76.66	Japan
43	Nanzan U	4.75	11	74.03	Japan
44	Kyoto U	4.00	5	73.92	Japan
45	Tamkang U	4.50	8	73.52	Taiwan
46	Curtin U Technology	3.75	10	62.99	Australia
47	Edith Cowan U	2.50	5	58.92	Australia
48	U Tsukuba	2.83	6	58.49	Japan
49	Bond U	3.00	5	55.44	Australia
50	Peking U	2.42	6	55.35	China
51	Tokyo Keizai U	1.83	3	50.41	Japan
52	La Trobe U	2.75	5	49.12	Australia
53	Hankuk U Foreign Studies	2.67	4	45.33	Korea
54	Summer Institute Linguistics	3.00	6	43.39	Korea
55	National Sun Yat-Sen U	2.17	6	43.15	Taiwan
56	Chulalongkorn U	2.33	5	42.00	Thailand
57	Kyung Hee U	1.83	4	39.82	Korea
58	Thammasat U	3.08	7	38.33	Thailand
59	Seoul City U	1.25	2	37.89	Korea
60	Renmin U	1.75	4	37.35	China
61	Nagoya U	3.00	4	36.50	Japan
62	National Cheng Kung U	2.00	5	35.42	Taiwan
63	Murdoch U	2.33	7	35.21	Australia
64	UNITEC Tech	1.50	2	34.84	New Zealand

Rank	University	Wt number of articles	Unwt. Number of articles	JF-pages	Country
65	Chonbuk National U	2.17	5	34.62	Korea
66	Feng Chia U	1.67	4	33.72	Taiwan
67	Keio U	1.92	5	33.15	Japan
68	Ajou U	1.67	4	30.09	Korea
69	Chung-Ang U	1.17	3	27.83	Korea
70	Sungkyunkwan U	1.50	3	25.18	Korea
71	U New England	2.00	5	24.47	Australia
72	Tokyo Metropolitan U	1.50	2	23.74	Japan
73	Chungnam National U	1.67	3	23.49	Korea
74	Ewha Women's U	0.83	2	23.25	Korea
75	Hallym U	1.00	2	22.73	Korea
76	Fukuoka U	1.00	1	22.42	Japan
77	Kookmin U	1.00	1	22.27	Korea
78	Open U Hong Kong	1.33	3	22.12	Hong Kong
79	Queensland U Technology	1.25	2	22.06	Australia
80	Soongsil U	1.33	3	21.80	Korea
81	U Canterbury	1.17	3	21.65	Australia
82	National Chi Nan U	1.00	2	21.34	Taiwan
83	U S Queensland	1.33	2	21.13	Australia
84	U Science in Malaysia	0.50	1	20.87	Malaysia
85	De La Salle U	1.00	2	20.72	The Philippines
86	Kwansei Gakuin U	1.17	3	20.41	Japan
87	U Teknologi	0.50	1	20.39	Malaysia
88	U Macau	1.00	2	20.34	Macau
89	National Tsing Hua U	1.33	3	19.62	Taiwan
90	Deakin U	1.25	3	19.48	Australia
91	National Lien-Ho Institute Technology	1.00	3	19.39	Taiwan
92	C Queensland U	0.50	1	18.93	Australia
93	Nagoya City U	1.00	3	17.96	Japan
94	Osaka U	1.25	3	17.86	Japan
95	National Dong Hwa U	1.00	3	17.68	Taiwan
96	Sookmyung Women's U	0.92	3	17.66	Korea
97	Rikkyo U	1.28	4	17.65	Japan
98	U Tasmania	1.00	2	17.63	Australia
99	U Waikato	1.00	1	16.58	New Zealand
100	Soonchunhyang U	1.00	1	16.50	Korea
101	U Wollongong	0.83	2	16.38	Australia

Rank	University	Wt number of articles	Unwt. Number of articles	JF-pages	Country
102	S Taiwan U Technology	1.00	2	15.95	Taiwan
103 (tied)	INSEAD-Singapore	0.50	1	15.31	Singapore
103 (tied)	Ming Chuan U	1.00	3	15.31	Taiwan
105	Seo-Kyeong U	0.83	2	15.20	Korea
106	U Adelaide	1.00	2	15.02	Australia
107 (tied)	Wuhan U	1.00	1	14.85	China
107 (tied)	Auckland U Technology	0.67	2	14.85	New Zealand
109	National Chiao-Tung U	1.04	5	14.59	Taiwan
110	U the Sunshine Coast	0.67	2	14.43	Australia
111	Dongbei U Finance and Economics	0.50	1	14.38	China
112	Chungbuk National U	0.50	1	13.92	Korea
113	U W Sydney	1.00	2	13.38	Australia
114	Trisakti U	0.50	1	13.11	Indonesia
115	Yokohama National U	1.00	1	12.97	Japan
116	Osaka City U	0.83	2	12.78	Japan
117	Tsinghua U	0.42	2	12.47	China
118	Sogang U	0.75	2	12.37	Korea
119	Kyoto Sangyo U	1.00	1	10.82	Japan
120 (tied)	Chaoyang U Technology	0.50	1	10.67	Korea
120 (tied)	U Seoul	0.50	1	10.67	Korea
122 (tied)	Handong U	0.50	1	10.05	Korea
122 (tied)	Aoyama Gakuin U	0.50	1	9.28	Japan
122 (tied)	Nihon U	0.50	1	9.28	Japan
122 (tied)	Sejong U	0.25	1	9.28	Korea
122 (tied)	Shih Hsin U	1.00	1	9.28	Taiwan
122 (tied)	U Philippines	1.00	1	9.28	Philippines
128	Inha U	0.33	1	9.06	Korea
129	Yeungnam U	1.00	2	9.01	Korea
130	National Chung Hsing U	0.63	2	8.80	Taiwan
131	Musashi U	0.33	1	8.45	Japan
132 (tied)	Hoseo U	0.50	1	8.35	Korea
132 (tied)	Singapore Polytechnic	0.50	1	8.35	Singapore
134	Inner Mongolia Poly U	0.50	1	8.30	China
135	Tohoku U	1.00	1	8.29	Japan
136	Kao-Yuan Institute Technology	0.33	1	8.04	Taiwan
137	U S Australia	0.50	2	8.00	Australia
138	Pusan National U	0.50	1	7.73	Korea

Rank	University	Wt number of articles	Unwt. Number of articles	JF-pages	Country
139 (tied)	Vanung U	0.50	1	7.42	Taiwan
139 (tied)	Da Yeh U	0.33	1	7.42	Taiwan
139 (tied)	Tunghai U	0.33	1	7.42	Taiwan
142 (tied)	Cheju National U	0.33	1	7.14	Korea
142 (tied)	Yosu National U	0.33	1	7.14	Korea
144	Choong-Bak National U	0.33	1	7.12	Korea
145	Kyunghi U	0.33	1	7.11	Korea
146	Mahidol U	0.25	1	7.04	Thailand
147	Asian U Science and Technology	0.50	1	6.96	Thailand
148	Soochow U	0.33	1	6.91	Taiwan
149	Ryukoku U	0.33	1	6.80	Japan
150 (tied)	National Pingtung Institute Commerce	0.33	1	6.49	Taiwan
150 (tied)	National Yunlin U Science and Technology	0.33	1	6.49	Taiwan
152	Zhejiang U	0.33	1	6.19	China
153	U Putra Malaysia	0.33	1	5.93	Malaysia
154 (tied)	Hirosaki U	0.25	1	5.87	Japan
154 (tied)	Yamagata U	0.25	1	5.87	Japan
156	Waseda U	0.33	1	5.67	Japan
157	Seown U	0.50	1	5.53	Korea
158 (tied)	Chang Gung U	0.33	1	5.41	Taiwan
158 (tied)	Fudan U	0.17	1	5.41	China
160	Osaka Gakuin U	0.33	1	4.95	Japan
161	International Islamic U	0.25	1	4.83	Malaysia
162	Kansai U	0.25	1	4.25	Japan
163	Kye Myong U	0.33	1	3.71	Korea
164	National U Malaysia	0.25	1	3.67	Malaysia
165	Hosei U	0.25	1	3.48	Korea
166	National Chin-Yi Institute Technology	0.17	1	3.25	Taiwan
167	U Marketing and Distribution Sciences	0.33	1	3.22	Japan
168	Hansei U	0.25	1	3.02	Korea
169	Kyonggi U	0.25	1	1.62	Japan
170	Beijing Normal U	0.08	1	1.04	China

Table 3. The relation among JF-pages, academic reputation, student selectivity, and financial resources

Panel A. Correlation among JF-pages, academic reputation, student selectivity, and financial resources

This table reports the correlation among JF-pages, academic reputation, student selectivity, and financial resources. Academic reputation, student selectivity, and financial resources are from the *Asiaweek* in year 2000. The sample schools include 56 Asian universities ranked by this study and the *Asiaweek*. p-values are in parentheses.

	Academic Reputation	Student Selectivity	Financial Resources
JF-pages	0.2246 (0.0961)	0.1550 (0.2540)	0.4179 (0.0014)
Academic Reputation		0.3928 (0.0027)	0.4895 (0.0001)
Student Selectivity			0.3295 (0.0131)

Panel B. Regression test results for the relation among JF-pages, academic reputation, student Selectivity, and finance resources

This table presents the regression test results for JF-pages, academic reputation, student selection, and finance resources. Academic reputation, student selectivity, and financial resources are from the *Asiaweek* in year 2000. **5% significant; ***1% significant.

	Dependent variable = JF-pages	
	Coefficient	t-statistics
Intercept	-136.06	-0.51
Academic reputation	1.78	0.15
Student selectivity	1.32	0.10
Financial resources	57.10	2.75***
R square	0.18	
F statistics	3.69**	
N	56	

Table 4. The percentage share of research productivity of Asia-Pacific Universities: 1990-2004

The Table presents the absolute and relative amount of JF-pages published by the universities in the region over time.

Year	Total JF-pages by Asia-Pacific Universities	Percentage increase from 1990 for Asia-Pacific universities	Grand total for all 21 journals	Percentage increase from 1990 for all journals	% share of the total JF-pages published by Asia-Pacific universities
1990	224.94		9,416.68		2.39%
1991	274.91	22%	9,891.71	5%	2.78%
1992	338.37	50%	10,280.90	9%	3.29%
1993	321.47	43%	11,170.18	19%	2.88%
1994	342.28	52%	11,215.15	19%	3.05%
1995	654.14	191%	12,611.50	34%	5.19%
1996	762.19	239%	14,123.98	50%	5.40%
1997	972.58	332%	14,317.18	52%	6.79%
1998	981.26	336%	14,477.08	54%	6.78%
1999	1,132.90	404%	15,139.63	61%	7.48%
2000	1,458.50	548%	16,062.13	71%	9.08%
2001	1,756.36	681%	16,740.02	78%	10.49%
2002	1,868.47	731%	17,327.24	84%	10.78%
2003	1,564.34	595%	18,881.35	101%	8.29%
2004	2,171.13	865%	20,834.83	121%	10.42%
All years	14,823.82		212,489.55		6.98%

Table 5. Research progress for Asia-Pacific research programs during 1990-2004

This Table provides the results of subperiod analyses in research productivity. We divide 1990-2004 into three subperiods of five-year each. To gauge the research progress, we compare the changes in JF-pages between 1995-99 and 1990-94 and between 2000-04 and 1995-99.

1990-04 rank	University	1990-94		1995-99			2000-04			Country
		1990-94 JF-pages	1990-94 rank	1995-00 JF-pages	1995-00 rank	Δ% from 1990-94	2000-04 JF-pages	2000-04 rank	Δ% from 1995-99	
1	Hong Kong U Science Technology	46.37	10	417.63	1	801%	850.63	1	104%	Hong Kong
2	Hong Kong Polytechnic U	5.03	47	154.00	7	2964%	750.43	2	387%	Hong Kong
3	Chinese U Hong Kong	79.56	4	233.42	4	193%	501.28	4	115%	Hong Kong
4	Nanyang Tech U	49.46	9	177.63	6	259%	549.95	3	210%	Singapore
5	U New South Wales	162.18	1	142.13	8	-12%	458.74	5	223%	Australia
6	National U Singapore	124.58	2	202.08	5	62%	415.47	6	106%	Singapore
7	City U Hong Kong	65.35	7	307.45	2	370%	295.72	7	-4%	Hong Kong
8	U Sydney	30.67	16	243.96	3	695%	198.95	11	-18%	Australia
9	U Melbourne	30.21	17	116.92	11	287%	226.55	9	94%	Australia
10	Monash U	69.57	6	65.03	21	-7%	237.32	8	265%	Australia
11	Hong Kong Baptist U	12.47	30	74.42	19	497%	199.03	10	167%	Hong Kong
12	U Western Australia	23.12	23	114.33	12	395%	132.36	16	16%	Australia
13	U Hong Kong	39.61	11	91.74	14	132%	137.53	15	50%	Hong Kong
14	Australian National U	60.77	8	129.19	9	113%	75.63	30	-41%	Australia
15	U Auckland	32.22	14	128.63	10	299%	98.45	20	-23%	New Zealand
16	RMIT U	4.38	50	87.35	16	1894%	142.93	13	64%	Australia
17	Korea Adv Institute Science Technology	122.40	3	36.93	32	-70%	73.15	32	98%	Korea
18	National Taiwan U	24.12	21	88.12	15	265%	119.79	18	36%	Taiwan
19	National Central U	11.79	32	84.19	17	614%	116.88	19	39%	Taiwan
20	Korea U	7.00	41	58.41	24	734%	139.41	14	139%	Korea
21	National Chung Cheng U	23.34	22	112.46	13	382%	63.20	36	-44%	Taiwan
22	National Chengchi U	24.79	19	81.37	18	228%	83.07	26	2%	Taiwan
23	Massey U	0.00	55	24.72	39	n.a.	145.97	12	491%	New Zealand
24	Yuan Ze U	0.00	55	32.69	34	n.a.	123.35	17	277%	Taiwan
25	Victoria U Wellington	28.19	18	29.91	36	6%	96.44	21	222%	New Zealand

Table 6. Asia-Pacific University performance relative to North American Universities in 2000-2004

The leading Asia-Pacific universities are compared with North American universities in terms of weighted total JF-Equivalent page counts. The weights are by co-authorship and co-affiliation.

Rank	Institutions	JF-pages	Equivalent North America ranking	Institutions	JF-pages
1	Hong Kong U Science and Technology	850.63	9	MIT / Stanford U	906.06/786.08
2	Hong Kong Polytechnic U	750.43	10	Stanford U / Cornell U	786.08/748.08
3	Nanyang Tech U	549.95	23	Purdue U / UT-Austin	550.54/541.39
4	Chinese U Hong Kong	501.28	26	Indiana U / U Florida	516.53/471.60
5	U New South Wales	458.74	29	U Toronto / Georgetown U	460.89/456.31
6	National U Singapore	415.47	36	Michigan State U / U Houston	417.28/408.82
7	City U HK	295.72	58	U Pittsburgh / U Iowa	297.85/291.11
8	Monash U	237.32	71	U New Orleans / U Memphis	245.08/233.81
9	U Melbourne	226.55	74	Brigham Young U / U South Florida	231.00/224.21
10	Hong Kong Baptist U	199.03	86	U Wisconsin-Milwaukee / U Illinois-Chicago	200.23/197.82
11	U Sydney	198.95	86	U Wisconsin-Milwaukee / U Illinois-Chicago	200.23/197.82
12	Massey U	145.97	109	U Western Ontario / Texas Tech U	146.84/145.63
13	RMIT U	142.93	113	U California-Irvine / Iowa State U	143.06/142.67
14	Korea U	139.41	115	U Colorado / Old Dominion U	141.85/136.35
15	U Hong Kong	137.53	115	U Colorado / Old Dominion U	141.85/136.35
16	U Western Australia	132.36	117	Kansas State U / George Washington U	135.78/131.66
17	Yuan Ze U	123.35	122	U Arkansas / U Tennessee	125.76/122.25
18	National Taiwan U	119.79	124	St Louis U / Johns Hopkins U	121.25/119.76
19	National Central U	116.88	126	Simon Fraser U / U Texas-Arlington	118.74/115.38
20	U Auckland	98.45	137	West Virginia U / Kent State U	98.90/95.15
21	Victoria U Wellington	96.44	137	West Virginia U / Kent State U	98.90/95.15
22	National Kaohsiung First U Science and Technology	92.68	140	U Nebraska / McMaster U	93.78/92.35
23	Griffith U	86.28	143	Wayne State U / Seton Hall U	88.02/85.62
24	Lingnan U	84.86	144	Seton Hall U / U Akron	85.62/83.42
25	Hitotsubashi U	84.12	144	Seton Hall U / U Akron	85.62/83.42

Table 7. Top 25 authors in Asia Pacific universities measured by the weighted total JF-equivalent pages (1990-2004) in 21 leading finance journals

This table shows the top 25 authors in Asia Pacific universities. The affiliations of these authors reflect their employment as of the last publication.

Rank	Author	Wt number of articles	Unwt. Number of articles	JF-pages	University
1	Faff, Robert W	12.58	26	209.51	Monash U
2	Chan, Kalok	10.50	24	200.36	Hong Kong U Science Technology
3	Tong, Wilson HS	8.17	15	193.01	Hong Kong Polytechnic U
4	Firth, Michael	9.33	16	180.50	Hong Kong Polytechnic U
5	Lang, Larry HP	7.00	19	155.36	Chinese U Hong Kong
6	Wang, Changyun	7.50	9	142.69	Renmin U / National U Singapore
7	Sun, Qian	5.33	12	127.29	Nanyang Tech U
8	Wei, KC John	7.08	18	127.22	Hong Kong U Science Technology
9	Cheng, Louis TW	6.83	17	124.64	Hong Kong Polytechnic U
10	Chang, Eric C	7.17	19	122.58	U Hong Kong
11	Smith, Tom	5.75	13	119.19	Australian National U
12	Corrado, Charles J	8.92	17	117.50	U Auckland
13	Lee, Jae Ha	5.50	11	107.92	Sungkyunkwan U
14	Bae, Kee-Hong	4.17	10	105.37	Korea U
15	Grundy, Bruce D	3.67	6	100.13	U Melbourne
16	Hwang, Chuan-Yang	4.92	10	98.75	Hong Kong U Science Technology
17	Ding, David K	4.67	10	93.56	Nanyang Tech U
18	Cai, Jun	4.50	11	91.68	City U Hong Kong
19	Zhou, Chunsheng	4.33	6	90.59	Peking U
20	Chen, Sheng-Syan	5.67	17	90.40	Yuan Ze U
21	Cheung, Yan-Leung	7.00	16	90.11	City U Hong Kong
22	Fung, Joseph KW	5.00	12	85.32	Hong Kong Baptist U
23	Brailsford, Timothy J	5.67	10	82.93	U Queensland
24	Hameed, Allaudeen	4.67	10	82.87	National U Singapore
25	Rui, Oliver M	3.83	10	82.25	Chinese U Hong Kong

Figure 1. Cumulative percentage of JF-equivalent pages from 170 Asia-Pacific universities (1990-2004)

Figure 1 plots the cumulative percentage of the *JF*-pages against the cumulative number of Asia-Pacific universities (arranged from higher rank to lower rank).

