

HOW COST-EFFECTIVE ARE

Canadian IPO Markets ?

Gauging whether Canadian firms have competitive access to equity capital relative to U.S. firms.

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The decision to go public for Canadian businesses has been a subject of great debate due to concerns that a lack of access to, or a higher cost of capital might place Canadian firms at a disadvantage compared to international competitors, especially those in the U.S. The Five Year Review Committee of the Ontario Securities Act wrote in its report (2002, p. 22)¹ that the “balkanized approach to securities regulation [in Canada] makes it more time consuming and expensive for issuers to raise capital across the country.” MacIntosh (1997), drawing upon results from Sawiak et al. (1996), indicated that compliance with the multiple regulatory systems in Canada creates both direct and opportunity costs for initial issuers. This debate, however, may not be easily solved without a study that compares the issue costs of Canadian and U.S. IPOs. There has been little research undertaken in this direction. Two studies released by the Conference Board of Canada show the cost advantages of Canadian IPOs over the U.S. ones; however, given the size of the sample of Canadian IPOs used in these studies [49 TSE IPOs for Williams and Shutt (2000), and only 16 TSE IPOs for Higgins (1994)] and the heterogeneity of the Canadian market, it is premature to assume that their results are applicable to all Canadian IPOs. To assess these concerns, information based on the analysis of larger samples is needed². Furthermore,

Kryzanowski and Rakita (1999) find that on average fees charged by U.S. banks for distributing an IPOs’ stocks are only marginally greater than fees charged by Canadian firms during the 1993-1997 period. Therefore, it will be interesting to see how the current situation is different than the previous one, and what we have learned from it.

In this study, we examine a large sample of Canadian and American IPOs. In particular, we gather information on the universe of firm-commitment and best-effort IPOs in Canada and the U.S. from 1997 to 1999, and measure their direct and indirect costs. This is, to our knowledge, the first large-scale examination of IPO costs in Canada.

The data and the costs of going public

The data used in this study come from several sources and cover the period from 1997-1999. For the Canadian sample, we use the Financial Post’s Record of New Issues. This source provides data on all Canadian IPOs including offering prices, gross proceeds, underwriters, and underwriter’s spread. Data for other expenses, contract type and industry are taken from final IPO

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prospectuses available at the SEDAR Web site (<http://www.sedar.com>). For the U.S. sample, we used the EDGAR Online Web site (<http://www.edgar-online.com>), which provides information derived from Securities and Exchange Commission data on U.S. new issues. For both samples, we excluded unit offerings, closed-end funds, real estate investment trust offerings (REITs), American Depositary Receipts (ADRs) and Regulation-A offerings from the analysis.

Table 1 shows a comparison of the sample with the total population of IPOs for each Canadian and major U.S. stock exchange during the 1997-1999 period. The final sample consists of 513 Canadian common equity IPOs and 1,188 U.S. common equity IPOs during the same period. Most of the Canadian IPOs come from technology, mining, and oil and gas companies (44.64% of the sample), but 55.46% of the aggregate gross proceeds are raised by financial services and real estate companies. Moreover, Junior Capital Pool³ (JCP) IPOs represent 57.5% of Canadian IPOs, while the TSE IPOs account for 99.13% of the total capital raised on the Canadian market. As in the Canadian sample, most of the U.S. IPOs come from the technology sector (30.72% of the sample), and 35% of the aggregate gross proceeds are raised by financial services and technology IPOs. Nevertheless, a direct comparison between the size of the IPO markets in the two countries cannot easily be made. If one takes the number of IPOs as an indicator, Table 1 clearly shows the dominance of the NASDAQ exchange (as the high-tech exchange) and the larger size of the U.S. economy. If we look at the ratio of IPOs on Canadian exchanges relative to those on the American exchanges, we observe approximately 10 IPOs on the NASDAQ for every one on the TSE during the 1997-

1999 period. According to the Conference Board study (1994), the ratio of IPOs on the TSE to IPOs on the NASDAQ is highly variable, ranging from 5:1 to 25:1 for the 1984-1993 period.

There are two major direct cost components in an IPO: (i) the direct expenses, and (ii) the underwriter's commission (or spread). Direct expenses are comprised of legal expenses, accounting and auditing fees, registration and transfer agent fees, printing costs, taxes, filing fees for the securities commissions, and other out-of-pocket costs. These costs are reported in the offering prospectus. The underwriter's commission is the largest direct cost: it is the difference between the offer price and the price per share received by the company.

The indirect cost of going public consists primarily of the underpricing⁴, which results from the underwriter practice of pricing new issues below their market values. It is an indirect cost supported by issuers, since it represents "money left on the table." The existence of the underpricing phenomenon in IPOs is well-documented by financial literature, and seems to be a common characteristic in most international markets⁵. We do not attempt to capture the opportunity costs created by the delays associated with the process, nor the intangible costs associated with the time and efforts of the management team.

SAMPLE SET COMPARED WITH POPULATION

TABLE 1

Stock exchange	Sample*		Population		Percentage coverage
	Number of IPO	Gross proceeds (US \$M)	Number of IPO	Gross proceeds (US \$M)	
TSE + CDNX non-JCP	218	\$7597.3	271	\$8297.94	80.44%
CDNX - JCP	295	\$53.47	366	\$65.86	80.6%
Total: Canada	513	\$7,650.8	637	\$8,363.5	80.5%
AMEX	34	\$740	45	\$912.34	75.55%
NASDAQ	982	\$61,644.2	1087	\$72,875.44	90.30%
NYSE	144	\$54,796.4	153	\$66,029.62	94.11%
OTC	28	\$269.2	45	\$1393.48	62.22%
Total: U.S.	1188	\$117,449.8	1330	\$141,210.9	89.32%

*124 Canadian IPOs and 142 U.S. IPOs had to be dropped because data on the "other expenses" aren't available; 5 Canadian IPOs listed exclusively on U.S. exchanges are also picked out. JCP for Junior Capital Pool

Costs and methods of raising capital through an IPO

Firms going public generally use the firm-commitment or the best-effort method. In the firm-commitment method, the underwriter guarantees the proceeds of the issuing firm. He therefore bears the risk of undersubscription, and should be compensated through the underwriter's discount. Nevertheless, in a case of over-subscription, the price cannot be raised, so the issue must be rationed. However, the number of shares may be increased by an overallotment option. The motivation for this option is to provide buying support for the shares without exposing the underwriter to excessive risk. In the case of best-effort offerings, the underwriter acts more like an agent of the issuer and does not guarantee the net proceeds of the offering. Therefore, the issuing firm bears the risk of the operation. If the minimum number is not sold, the issue is cancelled and the paid-in amount is returned to subscribing investors. Hence, in this situation, we would expect the underwriter discount to be lower in the case of best-effort offerings.

In Canada, the JCP program is an interesting option for emerging companies that need to raise capital in smaller amounts. However, while the JCP program simplifies the process of going public, it is not without its inherent costs. This study found it costs 22.95% on average for JCP companies to raise \$53.46 million, and the average underwriting fee hovers around 10%.

However, we have to keep in mind that JCP companies are riskier issuers, and IPO shares are sold between \$0.10 and \$0.30, which explain their high degree of underpricing.

Panel A of Table 2 reports descriptive statistics for the 218 Canadian firms (excluding JCP companies) that were taken public by contract type. Panel A shows that in Canada, the average firm-commitment offer raises almost seven times as much money as the average best-effort offer (US\$59.75 million versus US\$8.76 million).

Panel B of Table 2 shows the direct costs of going public for the two contract types. As shown, it is evident that the total direct costs of best-effort offerings are higher than those of firm-commitment offerings. Total direct costs, measured as a percent of the gross proceeds, average 19.19% for best-effort offerings, and 14.39% for firm-commitment offerings. The t-value on the difference in means between firm-commitment and best-effort issues is significant at the 5% level. This result raises the following question: why are small Canadian firms still using the best-effort contract in spite of its apparent cost disadvantage?

One possible explanation is that small Canadian firms interested in a best-efforts deal are mostly those who are not able to access the firm-commitment contract or, if they are able, the size of the underwriter's discount would be too high⁶. Thus, to raise capital at a lower

cost, small Canadian firms should explore different funding sources, including private placements or venture capital arrangements.

The U.S. sample shows no considerable variation in the average gross proceeds raised by either firm-commitment or best-effort offerings (US\$99.37 million versus US\$82.27 million).

Furthermore, firm-commitment contracts are used in 96.63% of all offers, and best-

DIRECT AND INDIRECT COST CATEGORIES 1997-1999

TABLE 2

(Excludes JCP IPOs)	Canada		U.S.	
	Firm-commitment	Best-effort	Firm-commitment	Best-effort
Panel A:				
Number of IPOs	114	104	1,148	40**
Gross proceeds (US \$M)	\$6,686.13	\$911.2	\$114,078.9	\$3,370.9
Average gross proceeds (US \$M)	\$59.75	\$8.76	\$99.37	\$84.27
Panel B:				
Underwriters' compensation (%)	8.08%*	9.64%*	7.11%*	3.56%*
Other expenses (%)	6.3%*	9.54%*	3.33%*	2.66%*
Total direct cost (%)	14.39%*	19.19%*	10.44%*	6.22%*
Level of underpricing (%)	22.8%*	45.67%*	37.76%*	30.27%*
Total issue cost	37.19%*	64.86%*	48.2%*	36.49%*

* Significant at 1%. ∞ T-value on the difference in mean between firm-commitment and best-effort issues is significant at 5%.
 ** Out of the 40 best-effort offerings, 34 are financial services IPOs.

effort contracts are uncommon. In addition, the total direct costs of best-effort offerings are lower than those of firm-commitment offerings. This finding is consistent with the theoretical backdrop which confirms that in best-effort offerings, the bank only pledges to provide its “best effort” to sell shares. Consequently, investment bank compensation should be lower. However, a further look at the U.S. sample reveals that out of the 40 best-effort offerings, 34 are financial services IPOs. These companies, even if they need an external broker service to sell their shares, are less concerned by the certification of the price, and hence the underwriter discount is lower (3.56% vs. 7.11% for firm-commitment offerings). Thus, the low cost of best-effort contracts in our U.S. sample would be an industry’s phenomenon.

A comparison of Canadian and U.S. IPO costs

Table 3 shows direct and indirect costs of going public in Canada for firm-commitment offerings.⁷ It cost 8.57% on average for TSE companies to raise US\$6.6 million, while it costs 19% on average for CDNX com-

panies to raise US\$93 million.

Similarly, we find that TSE IPOs are less underpriced than CDNX IPOs. Thus, as expected, the TSE exhibits the lowest issue cost for IPOs in Canada. This result is in line with those of Williams and Shutt (2000) and Higgins (1994), and confirms the fact that firms who are not able to access the TSE market are riskier issuers who pay more on the CDNX market to go public.

Table 4 reports direct and indirect costs of going public in the U.S. for firm-commitment offerings. It is clear that in the U.S., the NYSE has a direct cost advantage for firms going public. However, if we include the underpricing’s degree as an indirect cost, we find that the AMEX is the lowest-cost market for IPOs in the U.S. Overall, the results across exchanges support the wisdom that direct costs are relatively greater for small issues than for large issues. Corwin and Harris (1999) explain the differences across exchanges by: (i) the differences in initial listing fees; (ii) the prestige factor that underwriters can use to attract more potential investors, and; (iii) the quality certification that can reduce investor’s uncertainty about the value of the offer, which consequently should result in lower underpricing.

To compare issue costs between two markets, we have to take issue size in consideration. Table 5 summarizes the costs of going public in Canada and in the U.S. relative to the size of the offering. The average total direct cost of an IPO in Canada varies from 15.98% for issues between US\$1-10 million to 7.28% for issues of more than US\$100 million. In the United States, the average total direct cost of an IPO varies from 17.99%

for issues between US\$1-10 million to 7.29% for issues of more than US\$100 million.

Thus, we find that the average direct cost of issuing a small IPO in Canada (less than U.S. \$10 million) is less than in the United States. However, the direct cost of larger IPOs (more than US\$100 million) is similar in both countries.

CANADIAN IPO MARKETS

TABLE 3

Exchange	Canada		
	TSE	CDNX	Total
Underwriters’ compensation (%)	5.91%*	9.52%*	7.54%*
Other expenses (%)	2.65%*	9.47%*	5.73%*
Total direct cost (%)	8.57%*	19.00%*	13.27%*
Level of underpricing (%)	12.02%*	62.71%*	34.89%*
Total issue cost	20.59%*	81.72%*	48.16%*

* Significant at 1%.

U.S. IPO MARKETS

TABLE 4

Exchange	United States				
	AMEX	NASDAQ	NYSE	OTC	Total
Underwriters’ compensation (%)	7.76%*	7%*	6.33%*	8.57%*	7.1%*
Other expenses (%)	7.14%*	3.3%*	1.89%*	7.33%*	3.33%*
Total direct cost (%)	14.9%*	10.3%*	8.23%*	15.91%*	10.44%*
Level of underpricing (%)	3.08%	43.19%*	12.91%*	20.63%*	37.76%*
Total issue cost	18%*	53.49%*	21.11%*	36.55%*	48.2%*

* Significant at 1%.

In both countries, the underwriting fees are the largest component of the total direct cost. The average underwriting fees for an IPO in Canada vary from 8.12% for issues between US\$1-10 million to 5.53% for issues of more than US\$100 million. In the U.S., the average underwriting fees vary from 9.39% for issues between US\$1-10 million to 6.26% for issues of more than US\$100 million. Thus, it costs more to find buyers for small IPOs than for larger ones.

An analysis of the variation in the average underwriting fees within each size group further suggests that U.S. underwriters extract slightly higher fees than Canadian underwriters in providing access to a larger and deeper capital market with more liquidity. Interestingly, we find that the average underwriters' spread is 7.1%, which confirms the results of previous U.S. studies for issues between US\$20 and US\$80 million. Chen and Ritter (2000) explain the "7% solution" in the U.S. by the fact that issuers have paid relatively little attention to fees. Moreover, U.S. underwriters avoid competing on fees because they do not want to turn the IPO business into a commodity business. Ljungqvist and Wilhelm (1999) give another explanation for the clustering around 7%: they point out that fixing spread commissions at 7% simplifies bargaining. Kryzanowski and Rakita (1999) examine the collusion question in the Canadian context and do not find an unusually high concentration of fees among investment bankers (at 6%) for the 1993-1997 period. Our Canadian sample also confirms the absence of collusion for the 1997-1999 period.

A comparison of underwriters' spreads in other

countries reveals that the spreads in Canada and in the U.S. are high. For example, IPO spreads are 5.3% in Japan and 3.1% in France. In the United Kingdom, spreads are even lower (2.1%)⁸. The fact that Canadian and U.S. underwriters charge a greater premium when a firm seeks a Canadian or U.S. listing could be interpreted as evidence of Canadian and U.S. underwriters maintaining market power in their local capital markets. We could also think that the Canadian and U.S. underwriters' network contributes most to pricing and distribution.

Moreover, numerous studies suggest that the best-known empirical anomaly associated with the process of going public is the frequent incidence of large returns accruing to investors at the time of the offering. There is also some perception that underwriters are capable of controlling this underpricing. If the Canadian and U.S. spread premium reflects the expectation of higher quality service, we should observe a trade-off between underpricing and spreads. In other words, we should observe a negative correlation between gross spreads and underpricing. We examined this relationship and found that the evidence of a trade-off is fairly weak for U.S. IPOs, and totally absent for Canadian IPOs. Could we say then, that Canadian and U.S. firm management teams are not rational in their selection of underwriters or capital markets? To answer this question, we need a further in-depth investigation. We leave this debate for future research.

The underpricing analysis shows that, on average, Canadian IPOs are less underpriced than U.S. IPOs

COMPARATIVE COST BY SIZE, EXCLUDING JCP COMPANIES: 1997-1999

TABLE 5

Size of offering (US \$ millions)	Number of IPOs	Canada				U.S.				
		Underwriters' compensation	Other expenses	Total direct cost	Level of underpricing	Number of IPOs	Underwriters' compensation	Other expenses	Total direct cost	Level of underpricing
1.0 - 9.9	53	8.12%*	7.86%*	15.98%*	30.61%*	119	9.29%*	8.7%*	17.99%*	9.05%*
10.0 - 49.9	49	6.14%*	3.31%*	9.45%*	11.30%*	532	6.93%*	3.70%*	10.63%*	26.15%*
50.0 - 99.9	10	6%*	2%*	8%*	10.76%*	300	6.88%*	2.12%*	9%*	55.57%*
100 and more	16	5.53%*	1.75%*	7.28%*	8.88%*	237	6.09%*	1.2%*	7.29%*	67.19%*
Average		6.88%*	4.9%*	11.78%*	18.95%*		7%*	3.3%*	10.30%*	37.5%*
Weighted average (by size)		5.35%*	1.84%*	7.19%*	5.11%*		5.79%*	1.43%*	7.22%*	38.38%*

* Significant at 1%.

(18.95% versus 37.75%). On a weighted average basis, the difference is even more substantial (5.11% versus 38.16%). This result is linked to a date clustering: during the studied period, several large U.S. IPOs exhibited huge and uncommon initial returns—VA Linux Systems (IR 697.5%), Foundry Networks (IR 525%), and CacheFlow (IR 426.58%)⁹.

To further examine the situations in both markets, we look at the variation in the average cost within each size group across exchanges. Comparing the average percentage of direct costs of IPOs on the eight exchanges by size category reveals that the TSE has lower direct costs than its competitors in every size category. In other words, Canadian firms have access to equity capital on a competitive basis in comparison with U.S. firms. The evidence of major economies of scale is evident for both U.S. and Canadian offerings.¹⁰

Conclusion

The purpose of this study is to better understand whether or not Canadian firms have access to equity capital on a competitive basis relative to their U.S. counterparts. Our results show that the total direct costs of best-effort offerings are higher than those of firm-commitment offerings (21.91% versus 13.27%). The implication of this result is that if the entrepreneur is unable to obtain a firm-commitment from an underwriter, different funding sources—including private placements and venture capital arrangements—should be explored. The firm may also go public by other means, such as reverse take-over (RTO) or back-door listing.

We also look at the variation in the average cost within each size group across exchanges, and overall, we are able to confirm that the Canadian market is superior to its U.S. counterparts in terms of IPO costs. In other words, Canadian firms have access to equity capital on a competitive basis relative to U.S. firms. However, we confirm that the going public process is costly, particularly for small firms.

We don't find any evidence of a competitive disadvantage for the Canadian market relative to the U.S.

one. Our results, as well as the previous conclusions of Williams and Shutt (2000) and Higgins (1994), do not support the claim that issuers in Canada suffer from supplementary costs linked to the actual structure of the Canadian securities regulation. ■

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References

1. OSC (2002). Five Year Review Committee and substantiating documents. <http://www.osc.gov.on.ca>
2. Higgins (1994, p.15) points out that “further research covering a longer time frame could provide a larger sample, from which conclusions could be drawn with greater confidence.”
3. The Junior Capital Pool (JCP) program is one of these programs that help junior start-up companies to get the opportunity to become listed. A JCP company is a form of public listing exclusive to the CDNX. A JCP is not required to have an already established business, and is not even required to identify a business or project for which the raised capital will be used (blind pool). Thus, JCP IPOs are risky and small issues, which explain why we analyse them separately from TSE and CDNX non-JCP IPOs.
4. Underpricing = 100% * [(first closing market price - offering price) / offering price].
5. In this study, no explanation or discussion of underpricing is attempted. For details, see Kooli and Suret (2001). The existing literature suggests that the level of underpricing is, on average, larger for smaller and riskier firms, in hot markets, and for offerings issued by less prestigious underwriters.
6. A further exam of the Canadian sample reveals that, out of the 380 best-effort offerings, 355 are CDNX IPOs. Of these, 181 are technology, mining, and oil and gas IPOs. Thus, mostly emerging companies that are not able to access the TSE will choose the CDNX, as a first step before graduating to a senior exchange, and will be introduced on a best-efforts basis.
7. We compare only Canadian firm-commitments contract costs with U.S. firm-commitments since that is really the only contract type used in the U.S.
8. See Ljungqvist and Wilhelm (1999).
9. Loughran and Ritter (2001, p. 2) note that “Unlike the 1980s, (U.S.) IPOs managed by high prestige underwriters during the 1990s and the internet bubble (1999-2000) are associated with more underpricing than IPOs managed by lower prestige underwriters. Our (Loughran and Ritter's) agency hypothesis offers an explanation of this reversal.”
10. To confirm this observation we consider the following simple linear regression: $\ln(\text{total direct cost}) = b_1 + b_2 \ln(\text{gross proceeds}) + e$. The results for Canadian IPOs show that the adjusted R-square is 0.34 (0.5 for U.S. IPOs) and the estimated coefficient b_2 is -0.021 with t-statistic = -8.34 (b_2 is -0.025 with t-statistic = -34.39 for U.S. IPOs). Thus, the total direct cost varies inversely with the size of the offering.