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Comparing Working Capital Practices in Canada, the United States, and Australia: A Note

Our survey was motivated by a desire to better understand how working capital is managed by smaller firms in Canada. This includes the management of current asset and current liability accounts, as well as the working capital of the firm in the aggregate. To do so, we utilized a survey instrument that was used in three earlier comprehensive surveys of working capital practices. By ending up with eighteen questions that are comparable across four surveys that span two decades and three countries, we can see how working capital practices have varied over time and also across international borders. These comparisons also provide a useful perspective for considering future research directions in working capital management.

Research Design

The first comprehensive survey of working capital practices was conducted in 1978 (Smith & Sell, 1980). Their survey instrument consisted of 35 questions, some of which asked the respondent to choose one answer among several possibilities, while the others asked the respondent to rank alternatives in terms of their relative importance to the respondent's firm. From a sample of 653 of the largest U.S. industrial firms, there were usable responses from 210 firms for a 32.2% response rate. The authors found large differences among responding firms in terms of the formality of working capital policies, as well as in how individual working capital accounts were managed. They also concluded that working capital management in practice is far more than just a series of independent technologies.

The survey was replicated a decade later in 1988 (Belt & Smith, 1992). The survey instrument was expanded to 38 questions and was sent to a sample of 448 of the largest U.S. industrial firms. There were 105 usable responses for a 23.4% response rate. Longitudinal comparisons over a ten-year period suggested a pattern of more formality and sophistication in 1988 as to how current assets and liabilities are managed in practice.

Using the same instrument, the survey also was replicated in Australia during 1989. The sample consisted of 144 of the largest Australian firms, and there were 39 usable responses for a 27.1% response rate. This led to comparisons of working capital practices in Australia and the United States (Belt & Smith, 1991). They found both similarities and differences in working capital practices in the two English-speaking countries. Australian firms seemed to lag behind U.S. firms in inventory, credit/collection, and marketable securities management. The national banking system of Australia also helps firms in that country to manage cash flows more efficiently than in the United States.

To learn how smaller Canadian firms manage their working capital, we expanded the survey instrument to 45 questions. It was sent in 1994 (in both French and English versions) to a sample of 350 firms randomly chosen from ten industries within the BOSS database obtained from the Ministry of Industry, Science, and Technology. The sample was limited to firms with sales between CAD\$ 500,000 and 5 million, as well as to firms having ten to 500 employees. We received 57 usable responses for a 15.8% response rate.

Our findings are reported in Table 1. It contains the responses to 18 questions that are common to the four surveys (U.S. in 1978, U.S. in 1988, Australia in 1989, and Canada in 1994). We begin with a look at working capital policy, we examine management

practices for individual working capital accounts, and we end with overall management questions. Our major focus is on the practices of smaller Canadian firms, but with practices in other countries, and in earlier time periods, as perspective. For simplicity of presentation, we omit details about statistical significance for the comparisons that are made.

Working Capital Policy

Only 7% of Canadian firms have *formal* working capital policies. That result is much smaller than in any of the other three surveys, and it may be attributed simply to the Canadian firms being smaller. For the same reason, we see that responsibility for working capital policy tends to reside at a higher level in Canadian firms, namely the *board of directors* or *president*, than it is for U.S. or Australian firms.

As to type of working capital policy, 28.5% of Canadian respondents have a *cautious* policy while 10.2% have an *aggressive* policy. This result is not very different than what was seen in the earlier surveys. With respect to the frequency of policy review, the greatest difference was in the response to *monthly* review. The 17% response of Canadian firms was greater than that for the U.S. both in 1978 and 1988, but less than the 21.6% response for Australian firms in 1989. About half of the respondents in all four surveys indicated that their policy is reviewed *whenever necessary*, rather than on a regular basis.

Cash and Equivalents

The next three questions deal with the management of cash and marketable securities which are two of the current asset accounts. In terms of how firms decide to transfer funds between cash and marketable securities, 76% of Canadian firms use *subjective*

judgments, while no firms reported the use of *established guidelines*. In contrast Australian and U.S. firms use subjective judgments in just over 40% of the time and established guidelines in 20-30% of the responding firms.

When asked to rank strategies for managing the marketable securities portfolio, the highest ranking response was to *buy and hold to maturity* in all four of the surveys. The response of *play the yield curve* was a close second for the smaller Canadian firms, but not so in the U.S. and Australian surveys.

For the interval of time reflected in cash budgeting, just about half of the Canadian firms prepare their cash budgets monthly. For both U.S. and Australian firms, the most frequent response was that they do their cash budgeting on a daily basis. Again, this probably is a result of the Canadian firms being smaller and not needing to budget daily.

Accounts Receivable

The next three questions in Table 1 deal with the management of accounts receivable as one of the important working capital accounts. If *sequential credit analysis* and *credit scoring* can be viewed as more sophisticated methods than the traditional *four C's of credit*, then Canadian firms are more sophisticated in that their average rankings were higher for those two responses. In contrast, there was very little difference in responses from the four surveys as to how the turnover of accounts receivable is measured.

In terms of criteria for evaluating changes in credit terms, Canadian firms were more apt to look at the *effect on firm sales* or the *effect on receivables level*, whereas Australian and U.S. firms were more likely to focus on the impact on the *effect on firm profits*.

We were surprised that in all four surveys, a criterion of *effect on return on investment*

had the lowest ranking in all four surveys. Somehow, working capital is not seen as an ongoing investment by responding firms.

Inventory

Inventory management is the subject of the next three questions in the four surveys that are being compared here. Techniques for replenishing inventory were far more likely to be *ad hoc decisions* for Canadian firms, while U.S. and Australian firms were more likely to utilize *computerized control systems*. As before, this difference may well reflect differences in firm size.

When asked to rank variables considered in purchasing inventory, *availability* was the highest ranked in all four surveys, and with the other responses being similar as well. Exactly the same result occurred when respondents were asked to rank variables considered in producing inventory. Apparently, availability is the key determinant for inventory replenishment for all firms in three countries and across two decades of time.

Accounts and Notes Payable

The next three questions deal with accounts and notes payable which are part of the respondents' current liabilities. When asked about their perception of the firm's annual cost of trade credit, over 30% of U.S. firms (both surveys) indicated a *zero cost*, only about 10% of Australian firms reported a zero cost, but over 40% of Canadian firms said that they had no cost for their accounts payable. Across all of the answers provided, it is clear that Canadian firms believe that the cost of their trade credit is lower than for their Australian and U.S. larger counterparts. In contrast, less than one-half of the Canadian respondents report that they *always take their cash discounts* from their trade suppliers, while 11% *never* take discounts. This is a seemingly inconsistent finding.

The responses of Canadian firms also differed considerably in terms of the collateral that is part of their bank borrowing. Over 90% of U.S. firms reported that *collateral is never provided*, 75% of Australian firms never do either, but only 22.6% of Canadian firms are able to borrow without collateral for their working capital loans.

Managing Working Capital

The final two questions reported in Table 1 have to do with how working capital is capital is built into the longer-term capital budgeting decisions by the firm. Here, the Canadian response is pretty much the same as that of the Australian and U.S. firms. For all three countries, and over the two decades that separate the four surveys, just about two-thirds of the respondents *always* include working capital considerations in their capital budgeting.

What is the relevant discount rate used by firms in their handling of working capital accounts? The relevant *interest rate* is used in about one-third of all responding firms. The *average cost of capital* is used by over 40% of Australian and U.S. firms, but only by 19% of Canadian firms. In addition, over 40% of Canadian firms report that a hurdle rate is not needed in making decisions about their working capital accounts.

Future Research Directions

Overall, our survey of working capital practices in Canada extends the findings from the three prior surveys in the United States and Australia. There are both some similarities and some differences in working capital practices between countries as well as over time. Some of the notable differences are likely to be a result of smaller firms in the Canadian sample, as well as cultural difference across international boundaries.

Based on comparisons of the eighteen questions that were common to the four surveys reported in Table 1, it is possible to reflect upon some areas of future research in working capital management. First, it would be desirable in future surveys to continue to ask similar questions in order to see how practices change over time. Second, it also would be desirable to do similar surveys in other countries, both English-speaking and others, so as to better understand differences and similarities across international borders. And third, it is likely that the rapid increase of computers and electronic communication have changed the ways that many firms manage at least certain components of their working capital, and so additional questions should be added to those used in the four surveys discussed in this paper.

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Table 1
Responses to Selected Survey Questions

Authors	Smith/Sells	Belt/Smith	Belt/Smith	Khoury/et.al.
Country of Survey	U.S.	U.S.	Australia	Canada
Year of Survey	1978	1988	1989	1994
Number of responses	210	105	39	57
<i>Question and Responses</i>				
1. Nature of policy?	Percentage of responses			
Formal	29.7	37.1	38.4	7.0
Informal	60.3	48.6	56.4	73.7
None	10.0	14.3	5.1	19.3
2. Responsibility for policy?	Percentage of responses			
Board of directors	7.4	5.5	12.8	14.6
President	21.3	11.1	25.6	45.8
Vice president of finance	44.1	42.2	35.9	18.8
Treasurer	11.7	16.7	2.6	4.2
Controller	0.5	7.8	7.7	14.6
Other	14.9	16.7	15.4	2.0
3. Type of policy?	Percentage of responses			
Cautious (risk avoiding)	28.0	41.1	25.0	28.5
Aggressive (risk accepting)	21.8	6.7	2.8	10.2
Situational	46.1	42.2	63.9	53.1
Change over time	4.1	10.0	8.3	8.2
4. Frequency of policy review?	Percentage of responses			
Monthly	13.8	14.1	21.6	17.0
Quarterly	17.5	10.9	8.1	17.0
Semi-annually	4.2	4.3	5.4	2.1
Annually	15.9	17.4	10.8	17.0
Whenever necessary	48.7	53.3	54.1	46.9
5. Transfers between cash and mark/sec?	Percentage of responses			
Subjective judgments	43.2	41.8	40.7	76.0
Established guidelines	32.3	23.1	29.6	0.0
Cost balancing models	5.2	9.9	22.2	20.0
Other	19.3	25.3	7.4	4.0
6. Strategies for managing mark/sec portfolio?	Average ranking (1 highest)			
Buy and hold to maturity	1.47	1.52	1.62	1.38
Ad hoc decisions	2.16	2.31	2.29	1.88
Play the yield curve	2.23	2.10	2.10	1.43
Portfolio perspective	2.10	2.05	1.73	2.80
Other	1.63	1.00	1.00	0.00
7. Interval of time for cash budgeting?	Percentage of responses			
Daily	47.8	35.2	47.4	18.2
Weekly	32.1	28.6	15.8	18.2
Monthly	11.9	23.8	28.9	49.1
Quarterly	8.1	8.6	2.6	9.1
Other	0.0	3.8	5.3	5.4
8. Techniques for granting credit	Average ranking (1 highest)			
The "four C's of credit"	1.30	1.48	1.10	1.42
Sequential credit analysis	1.75	1.96	2.79	1.48
Credit scoring	2.11	1.90	1.82	1.68
Other	1.45	1.22	1.83	1.33

9. Accounts receivable turnover	2.47	2.54	2.48	2.39
Collection period	1.90	1.82	1.76	1.74
Aging schedule	1.38	1.35	1.40	1.32
Other	1.40	1.80	--	--
10. Criteria in evaluating credit term changes?		Average ranking (1 highest)		
Effect on firm sales	2.12	1.96	1.93	1.50
Effect on receivables level	2.65	2.79	2.54	1.96
Effect on firm profits	1.85	1.73	1.85	2.23
Effect on return on investment	2.46	2.42	2.52	3.04
11. Techniques for replenishing inventory?		Percentage of responses		
Ad hoc decisions	19.8	10.4	21.1	30.6
Industry guidelines	3.0	2.1	5.3	4.1
Cost balancing models	7.1	10.4	2.6	10.2
Computerized control systems	61.9	69.8	60.5	38.8
Other	8.1	7.3	10.5	16.3
12. Variables considered in inventory purchased?		Average ranking (1 highest)		
Availability	1.54	1.41	1.52	1.60
Price discounts	2.47	2.24	2.52	2.05
Credit terms	3.60	3.46	3.17	2.97
Shortage costs	2.46	2.48	2.13	2.38
Inflation	3.66	4.28	4.25	3.43
Other	1.32	1.29	1.17	1.60
13. Variables considered in inventory produced?		Average ranking (1 highest)		
Seasonality of demand	1.83	1.69	1.90	1.74
Production schedule	1.48	1.55	1.60	1.49
Inflation	3.44	3.39	3.67	3.20
Shortage costs	2.69	2.51	2.38	2.52
Other	1.67	1.67	1.50	1.50
14. Annual cost of trade credit		Percentage of responses		
Zero	37.7	30.3	9.7	40.4
1.0 - 5.9%	30.9	37.1	45.2	40.4
6.0 - 10.9%	26.9	30.3	12.9	11.5
11.0 - 14.9%	2.9	2.2	12.9	0.0
Greater than 15%	1.7	0.0	19.4	7.7
15. Cash discounts from suppliers?		Percentage of responses		
Always take discount	69.4	50.5	56.4	22.2
Sometimes take discount	19.9	39.8	41.0	53.7
Pay later but take discount	9.2	9.7	2.6	13.0
Never take the discount	1.5	0.0	0.0	11.1
16. Collateral as part of bank borrowing?		Percentage of responses		
Collateral never required	92.3	91.6	75.0	22.6
Collateral sometimes required	4.1	6.3	19.4	17.0
Collateral always required	3.6	2.1	5.5	60.4
17. Working capital reflected in capital budgeting?		Percentage of responses		
Never	5.7	3.9	10.3	8.8
Sometimes	27.6	34.0	28.2	24.6
Always	66.7	62.1	61.5	66.7
18. Discount rate used in changing work cap?		Percentage of responses		
Interest rate	29.3	37.5	37.1	34
Cost of equity capital	7.1	3.8	0.0	4.3
Average cost of capital	48.0	43.3	42.9	19.1
Hurdle rate not needed	15.7	5.8	17.1	40.4
Other	0.0	9.6	2.9	2.1