THE FINANCING OF CURRENT ASSETS BY U.S. CORPORATIONS: SOME NEW EVIDENCE

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ABSTRACT

This paper examines the working capital policies of U.S. corporations by analyzing the responses of 113 Chief Financial Officers to a 20 item questionnaire. The results of this survey indicate that most companies do not employ the matching principle in financing their current assets requirements. Instead, the majority of respondents indicated that their firms followed an aggressive approach, which may increase the financial risk of the firm. Cross-tabulations suggested a number of explanations for this practice, including the lower cost of short-term debt and the ease of negotiating/renegotiating short-term debt.

I. Introduction

One of the most important decisions that must be made with respect to working capital management is the determination of the maturity structure of financing. In discussing the financing of working capital requirements, the vast majority of corporate finance textbooks [see, for example, Block and Hirt (1), Schall and Haley (2), and Weston and Brigham (3)] distinguish between the permanent and temporary components of current assets. However, the results of a survey of over 100 Chief Financial Officers conducted for this study indicate that U.S. corporations do not explicitly recognize the permanent component of current assets. As a result, U.S. corporations tend to adopt an "aggressive" working capital policy, whereby permanent current assets are financed with short-term debt. Although this practice exposes the firm to refinancing risk, respondents indicate this policy provides increased flexibility and lower financing costs.

II. Working Capital Policies

A standard Balance Sheet divides a firm's total assets into current assets and fixed assets. Current assets may be further subdivided into permanent and temporary components. As a firm grows from operating period to operating period, a layer of permanent current assets is created. Permanent current assets represent the minimum level of current assets necessary to support the current sales of the firm. Viewed in terms of the business cycle, permanent current assets are equal to those current assets which remain at the low point of the business cycle. On the other hand, temporary current assets represent those current assets resulting from seasonal variations in production or sales volume. Temporary current assets are worked off during the downtrend of the business cycle until the total asset requirements return to their permanent level.

The manner in which the assets of a company are financed involves a trade-off between risk and profitability. Textbooks typically discuss three alternative approaches to financing current assets: (1) a "matching" approach; (2) a "conservative" approach; and (3) an

"aggressive" approach.

The matching approach involves matching the firm's assets with the maturity of the financing instrument. Therefore, temporary current asset requirements are financed with short-term sources of capital, whereas the total of permanent current asset and fixed asset requirements are financed with long-term sources. With the matching policy, a firm incurs financing costs for only the period over which the funds are needed. Furthermore, this approach reduces the risk that the firm will be unable to pay off its maturing obligations.

Under a conservative financing policy, all of the firm's permanent current assets plus a portion of its temporary current assets are financed on a long-term basis. The remaining temporary current assets are financed with short-term debt. Financing temporary current assets with long-term debt involves the payment of interest on debt when it is not needed. Furthermore, the cost of long-term debt is typically greater than the cost of short-term borrowings. Although excess funds not required for operations may be invested in short-term marketable securities, the yield on these securities is usually less than the cost of long-term debt. Smaller firms may also encounter difficulty in obtaining adequate long-term debt financing.

Under an aggressive financing policy, the firm's fixed assets and a portion of current assets are financed with long-term debt and/or equity. The remaining permanent current assets are financed with short-term debt. This policy sacrifices liquidity in an attempt to enhance profitability. Although short-term debt is usually less expensive than long-term debt, the interest cost on short-term borrowings is uncertain and subject to greater fluctuation. Furthermore, using short-term sources of funds to finance permanent current assets increases the risk that the firm may not be able to renew its borrowings, which could lead to bankruptcy.

III. Survey Methodology and Respondent Profile

In an effort to determine which of the three working capital policies is most widely utilized by U.S. corporations, a survey of Chief Financial Officers was conducted. A questionnaire consisting of 20 questions was mailed to 600 Chief Financial Officers in the Winter of 1986. The mailing population was evenly distributed among small firms with sales of $50 million or less; middle market firms with sales of $50 million - $500 million; and of large firms with sales greater than $500 million. Approximately 19% of the mailing population returned a completed questionnaire. In total, 113 questionnaires were in a form suitable for analysis, and these comprised the sample for this study. The sales distribution of the firms in the sample was as follows: 35 firms had annual sales less than or equal to $50 million, 33 had annual sales between $50 million and $500 million, and 45 had annual sales greater than $500 million.

A substantial majority of the questionnaire statements (15 out of 20) related to the firm's working capital policies. A five point semantic differential scale was employed to permit the respondents to indicate their degree of "agreement" or "disagreement" with each of the items. The other five items were intended to provide background information concerning the respondents. The survey instrument included only "closed-ended" questions in order to reduce the response time and enhance the interpretation of the results.

IV. Survey Results

The responses to each of the 15 statements regarding the firm's working capital policies are displayed in Table I.

TABLE I: Summary of Survey Participant Responses to the Statements Concerning the Firm's Working Capital Policies

Questionnaire Item	Percent Agree 1 2	Percent Neutral 3	Percent Disagree 4 5
1. Long-term debt is primarily used by your firm to finance fixed assets.	70.8	11.5	17.7
2. Long-term debt is not used by your firm to finance accounts receivable and inventories.	80.5	1.8	17.7
3. If it could, management at your firm would borrow long-term debt to finance part of the firm's accounts receivable and inventory.	24.3	14.4	61.3
4. Your firm would borrow short-term funds to finance a "permanent" increase in accounts receivable and inventory.	40.9	27.3	31.8
5. Your firm has ready access to the long-term capital markets.	63.4	18.8	17.8
6. Your firm has easy access to equity sources.	41.1	17.8	41.1
7. Short-term financing is easier for your firm to negotiate/renegotiate than long-term financing.	69.6	17.8	12.6
8. Your bank will renew short-term debt so long as interest payments are made on time.	66.7	9.9	23.4
9. Management at your firm is rarely concerned about the availability of short-term bank financing.	45.1	7.1	47.8
10. Your firm's available line of credit of credit exceeds its needs.	81.3	8.9	9.8
11. Your firm has sufficient unused borrowing capacity in the event of a liquidity crisis.	88.4	3.6	8.0
12. Your firm could easily pay off short-term notes on demand.	50.9	15.2	33.0
13. Long-term debt is more expensive to your firm than short-term debt.	57.2	15.2	27.6
14. Management at your firm aggressively pursues the lowest cost debt regardless of whether it is short-term or long-term in nature.	45.1	23.0	31.9
15. Management at your firm is considered conservative.	71.4	18.8	9.8

Collectively, the responses to questions 1-4 suggest that the firms surveyed tend to employ an aggressive working capital policy. The responses to question 1 indicated a strong propensity on the part of financial executives to associate long-term debt primarily with the financing of fixed assets. Consistent with the results of statement 1, 80.5% of the respondents to statement 2 indicated that long-term debt was not used to finance accounts receivable and inventory. Similarly, 61.3% of the Chief Financial Officers disagreed with the statement, "If it could, management at your firm would borrow long-term debt to finance part of the firm's accounts receivable and inventory." Furthermore, 40.9% of the respondents indicated that their firms would borrow short-term funds to finance a "permanent" increase in accounts receivable and inventory. Thus, it appears that firms do not distinguish between the "temporary" and "permanent" components of current assets.

The use of short-term debt to fi-

nance permanent current assets increases the financial risk of the firm. To the extent that substitute financing is not available, the failure of the lender to renew the short-term debt could lead to the failure of the firm. Given the attendant risks associated with the aggressive approach to financing current asset requirements, it is useful to determine the reasons why firms follow this policy. This is accomplished by performing cross-tabulations comparing the responses of the 80.5% who agreed with statement 2 with the answers to other items on the questionnaire. These cross-tabulations are displayed in Table II.

As indicated in Table IIA, 62.2% of the respondents had ready access to the long-term capital markets (item 5). Therefore, scarce long-term capital does not appear to be a condition for the use of short-term debt by firms to finance accounts receivable and inventory. Table IIB shows that 72.2% of the executives believed that short-term financing was easier to negotiate/renegotiate than long-term financing (item 7). This cross-tabulation suggests that the relative ease with which short-term debt is negotiated may partially explain its widespread use in financing permanent current assets. Furthermore, as indicated in Table IIC, 70.8% of the executives believed that their bank would renew short-term debt as long as interest payments were made on time (item 8). This indicates that the payment of interest is the primary condition for renewal of short-term debt. Table IID indicates that 55.6% of the respondents believed that long-term debt was more expensive than short-term debt (item 13). This cross-tabulation suggests that firms may employ short-term sources of funds to finance the permanent component of current assets because they are less expensive than long-term sources. Finally, Table IIE shows that 74.4% of the respondents believed that their firms were conservative. There is a paradox associated with this response since short-term debt increases the financial risk of the firm.

V. Summary and Conclusions

This paper has examined the current asset financing practices of U.S. corporations by analyzing the responses to a 20 question survey instrument which was mailed to the Chief Financial Officer of 600 firms. The results of this paper indicate that the matching principle does not appear to be a valid description of these firms' working capital policies. Rather, U.S. corporations appear to employ an aggressive approach to financing their current asset requirements. A substantial percentage of corporate respondents indicated that they financed permanent current assets with short-term debt even though this practice may increase the financial risk of the firm. Cross-tabulations of the responses suggested a number of explanations for the utilization of an aggressive approach including the ease of negotiating/renegotiating short-term debt, the lower cost of short-term debt, and the fact that short-term debt will be renewed if interest is paid.

The implication of our paper should be clear: in making their decisions regarding the maturity composition of borrowing, financial managers appear to be more concerned with the cost aspects of financing compared to the refinancing risks. Therefore, in periods of an upward sloping yield curve (such as what was experienced during the mailing of our 1986 survey), financial executives prefer an aggressive working capital policy since short-term interest rates are lower than long-term rates. However, during periods of a downward sloping yield curve an aggressive approach would lead to less than optimal results, and consequently we surmise that executives would employ a more conservative strategy (i.e., less short-term debt). Perhaps, future research exploring the latter hypothesis will provide better insights in this area.

TABLE II: CROSS-TABULATIONS TO DETERMINE THE RATIONALE FOR AN AGGRESSIVE WORKING CAPITAL POLICY

TABLE II-A

		QUESTION 2		
		AGREE	NEUTRAL	DISAGREE
QUESTION 5	AGREE	(56) 62.2%	(1) 50%	(14) 70%
	NEUTRAL	(19) 21.1%	(1) 50%	(1) 5%
	DISAGREE	(15) 16.7%	(0) 0%	(5) 25%
		100% 90	100% 2	100% 20

Question (2) - Long term debt is not used by your firm to finance accounts receivable and inventories.

Question (5) - Your firm has ready access to long-term capital markets.

TABLE II-B

		QUESTION 2		
		AGREE	NEUTRAL	DISAGREE
QUESTION 7	AGREE	(65) 72.2%	(2) 100%	(11) 55%
	NEUTRAL	(14) 15.6%	(0) 0%	(6) 30%
	DISAGREE	(11) 12.2%	(0) 0%	(3) 15%
		100% 90	100% 2	100% 20

Question (2) - Long-term debt is not used by your firm to finance accounts receivable and inventories.

Question (7) - Short-term financing is easier for your firm to negotiate/renegotiate than long-term financing.

TABLE II-C

		QUESTION 2		
		AGREE	NEUTRAL	DISAGREE
QUESTION 8	AGREE	(63) 70.8%	(2) 100%	(9) 45%
	NEUTRAL	(7) 7.9%	(0) 0%	(4) 20%
	DISAGREE	(19) 21.3%	(0) 0%	(7) 35%
		100% 89	100% 2	100% 20

Question (2) - Long-term debt is not used by your firm to finance accounts receivable and inventories.

Question (8) - Your bank will renew short-term debt so long as interest payments are made on time.

TABLE II-D

		QUESTION 2		
		AGREE	NEUTRAL	DISAGREE
QUESTION 13	AGREE	(50) 55.6%	(2) 100%	(8) 40%
	NEUTRAL	(13) 14.4%	(0) 0%	(4) 20%
	DISAGREE	(27) 30.0%	(0) 0%	(8) 40%
		100% 90	100% 2	100% 20

Question (2) - Long-term debt is not used by your firm to finance accounts receivable and inventories.

Question (13) - Long-term debt is more expensive to your firm than short-term debt.

TABLE II-E

		QUESTION 2		
		AGREE	NEUTRAL	DISAGREE
	AGREE	(67) 74.4%	(1) 50%	(12) 60%
QUESTION 15	NEUTRAL	(15) 16.7%	(0) 0%	(5) 25%
	DISAGREE	(8) 8.9%	(1) 50%	(3) 15%
		100% 90	100% 2	100% 20

Question (2) - Long-term debt is not used by your firm to finance accounts receivable and inventories.

Question (15) - Management at your firm is considered conservative.

REFERENCES

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