Measuring and Managing Liquidity in the Current Economic Crisis

By James S. Sagner, PhD*

The liquidity crisis presently being experienced in the U.S. has been the subject of numerous articles, Congressional hearings and general debate. Unfortunately, there has not been much insight or assistance to businesses to help in these difficult times. However, available data indicates that adjustments have been on-going and may eventually lead to the opportunity for future business expansion once this period comes to an end.

The Measurement of Liquidity

Liquidity is traditionally measured using cash budgets and ratios, primarily the current ratio and the quick (acid test) ratio, to determine the daily, weekly and monthly cash position. When projections indicate that a company will be temporarily operating in a deficit cash position, bank credit lines are used to finance short-term cash deficits.[1] In the current situation, these techniques have not been helpful and managers have been forced to take various other actions to assure adequate liquidity.

The examination of recent data on liquidity shows that the current ratio has barely changed in the past three years, while revenues-to-cash have declined in every observation selected from a sample representing 20% of U.S. industries; see Table 1. Stability in the current ratio and the resulting minimal information content reflects the realignment of working capital by companies to changing economic conditions and to the need to comply with loan covenant provisions regarding ratio performance.

A much more useful measure is total receipts to cash flow (TR/CF). Between 2005 and 2008, TR/CF declined from 9.8 times to 6.8 times.[2] During that period, growth in the GDP of the U.S. was 4.75% on a current dollar basis. This effectively means that American industry increased revenues at a time when the ratio of total receipts to cash flow was declining by 30%. In other words, the typical industry with revenues of $1,000 at the beginning of that period would be receiving $1,047.50 by the end of the period.

Applying these revenue data to the ratio of receipts to cash flow, we calculate that cash rose from 10.2% to 15.4% of the balance sheets of the companies in this sample, an increase of more than one-third in only three years. This reflects the rapidly declining reliance of businesses on short-term credit lines from banks and other sources, and the hoarding of cash to meet transactional and precautionary needs.

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[1] See any standard corporate finance text for further information, e.g., Stephen A. Ross, Randolph W. Westerfield and Bradford D. Jordan, *Essentials of Corporate Finance*, McGraw-Hill Irwin, 6th ed. 2008.

[2] Based on calculations by the author from a sample of Current Ratios (#30) and ratios of Total Receipts to Total Cash Flow (#42) for 25 industries (of about 135 industries); Leo Troy, *Almanac of Business and Industrial Ratios* (CCH, 2006 & 2009), Table 1: Companies with and without Net Income. Excluded from the sample were public utilities (as revenues are regulated by public service commissions), financial companies and professional service organizations.

The Management of Liquidity

There are several important observations that result from these data.

1. **Adjustment by American Businesses**. Companies have adjusted remarkably well to the contraction of credit and liquidity and to weakened economic conditions. Certainly there have been companies that failed to adequately cope with these unprecedented conditions (at least since the Great Depression), and the result has been bankruptcy. Leading examples include Linens 'n Things (small appliances), Circuit City (electronics), Fortunoff (jewelry and home furnishings), and Bennigan's (restaurants). However, many businesses have taken the necessary steps to survive, such as terminating marginal employees, negotiating with vendors and landlords, and working harder and smarter. See Table 2 for a listing of specific actions.

2. **Need for New Liquidity Measurements**. The traditional tools for measuring liquidity are not helpful in the current situation. The underlying assumptions in using these techniques are predictable revenues and costs, and available credit at a fair price to worthy borrowers. As businesspeople know only too well, in recent times revenues have not been predictable and credit remains tight. Instead, liquidity needs must be calculated from longer-term results, by industry, using data from Troy on total receipts to cash flow. Banks are take noting of this situation, and future loan covenants may stress TR/CF over the less useful standard liquidity ratios as protection against providing credit in deteriorating business conditions.

3. **Liquidity is more than Cash**. Cash is only a portion of the liquidity requirements of any business. The typical U.S. company may carry about 10% of its balance sheet as cash in normal times, assuming an additional 5% of liquidity will be from bank credit lines. In times of economic distress, cash holdings must rise to about 15% of the balance sheet. Inevitably, higher cash holdings results in lessened expenditures for current assets and capital project investments, and will stifle growth and profitability. However, the priority must be survival rather than long-term strategic concerns.

There are many actions that businesses should be taking to assure survival and eventual growth. Measuring and understanding liquidity requirements are essential components of any company's financial plan.

Table 1: Changes in Liquidity Ratios in U.S. Industry Groups (2006 – 2009)[a]

Industry Groups[b]	NAICS Series[c]	Change in Current Ratio	Change in Total Receipts to Cashflow
Agriculture	11	0.17	-0.23
Mining	21	-0.25	-0.40
Construction	23	0.08	-0.29
Manufacturing	31-33	0.01	-0.41
Wholesaling	42	0.00	-0.29
Retailing	44-45	-0.03	-0.15
Transportation & Warehousing	48-49	0.13	-0.20
Information	51	-0.02	-0.38
Other	62 & 72	0.11	-0.12
Unweighted Change[d]		0.02	-0.30

[a] The period representing the top of the economic cycle to the present time.

[b] Contact the author for data on specific industries.

[c] For a complete listing of all North American Industry Classification System (NAICS) codes, see www.naics.com.

[d] Calculated based on the individual changes in 25 industries.

Source: See footnote 2.

Table 2: Ten Recommended Actions by Businesses in a Liquidity Crisis

1. Examine your capital structure, particularly debt obligations. Your lenders must be informed as early as possible of any possibility of problems, particularly late payments of principal and interest, possible violations of loan covenants, or general liquidity problems. The earlier such conversations occur, the more likely it is that modifications can be made that will be acceptable to each party.

2. Defer any non-essential expenditures, such as capital expenditures, software upgrades, travel and entertainment where business could be conducted by telephone or the Internet, and education and training. While these activities are important to the long-term business development of your company, you must focus on short-term survival.

3. Are there any divisions or business units of your company that have consistently underperformed the others? This may be the time to terminate or sell these units and concentrate on your core competencies.

4. The opportunities for better management of working capital typically reside in aggressive inventory management. Our work with hundreds of companies over the past twenty-five years shows a reluctance of production managers to write down or scrap stale or spoiled raw materials or finished goods, or to halt work-in-process. A solution to such resistance may be to engage an independent engineer to objectively evaluate all inventory.

5. Consider asset-based lending to supplement your usual bank credit. Although typically more costly than credit lines or other lending arrangements, your survival may depend on liquidity even at a somewhat higher price.

6. Review your banking relationships and determine whether all of your accounts are required for transactional activity or to support credit facilities. Our work typically reveals that about one-third of all accounts are inactive and could be closed or consolidated. Remember, banks charge maintenance fees, and accounts that are usually idle are much more likely to experience fraud than are your active accounts.

7. Although popular and largely successful until the current recession, JIT (just-in-time) inventory programs could destroy your company if your vendors experience their own liquidity problems and cannot make delivery. Unless you are absolutely convinced that your vendors are solvent, consider locating alternative supply sources and maintaining higher levels of inventory at your facilities.

8. Reconsider financial products that seemed appropriate in normal economic times but may no longer be cost justified. Some examples: you would have to maintain an average $100,000 in a sweep account just to cover the costs of the sweep! Instead, leave any balances for an earnings credit rate (ECR) allowance. Do you use all of the treasury information system modules that you are paying for? Begin by examining your monthly account analyses or other invoices that you receive from your financial institutions.

9. Although you've probably terminated some employees, never allow the jobs of handling cash and accounting (including accounts receivable and payable) to be merged. Bank products that help are lockbox (for collections) and comprehensive payables (for disbursements). Be certain that electronic payment mechanisms have two levels of

approval, an initiator and a sender. Fraud is a huge problem during difficult economic times.

10. Some of your service providers may have a long-standing relationship with your company, but in these difficult times you cannot afford to be sentimental. Every vendor must charge a fair price and provide good quality. Consider bidding out such services as payroll, information technology, banking, advertising and marketing, janitorial, and heating and air conditioning. Re-read idea #3 on core competencies.

For additional information on these products, contact your banker or see Michele Allman-Ward and James Sagner, *Essentials of Managing Corporate Cash*, John Wiley & Sons 2003.