

Cash Flow Analysis

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Cash Flow Analysis

- Banks obtain large share of income from Commercial Loans.
- Depend on sound and reliable judgment regarding clients ability to repay loans
- Yesterday's loans are repaid from tomorrow's cash flow
- Financial Analysis is a key tool in making sound credit decisions
- Cash Flow Analysis is an integral part of Financial Analysis

Pro-forma Analysis

- Anticipates future results
- Compares past performance with projections to determine credibility
- Pro-formas usually too optimistic
- Sensitivity analysis needed

Cash Flow Analysis

- Different Methods
 - EBITDA (Traditional) Cash Flow
 - Income statement based
 - Earnings before interest, taxes, depreciation and amortization
 - Uniformed Credit Analysis Cash Flow (UCA)
 - Discloses changes in cash flow from operations, investing and financing
 - RMA began advocating in the 1980's

EBITDA Analysis

- Why use EBITDA as a measurement of Cash flow?
 - It represents the primary sustainable source of cash flow – INCOME!
 - It gives insight into how the company manages via trend analysis of:
 - Gross Profit Margin
 - Net Operating Profit
 - EBITDA Margin
 - It is easily measured and is the method of choice for debt coverage covenants

EBITDA Analysis

(continued)

- What are the pitfalls in EBITDA Cash Flow?
 - Ignores taxes, although it could be reduced to EBIDA
 - Overlooks distributions for tax purposes or shareholder returns on investment, although it could be reviewed on a post distribution basis
 - Overlooks working capital requirements for higher A/R and Inventory levels to support growing sales
 - Ignores fixed asset replenishment and expansion through capital expenditures
 - Ignores changes in short-term and long-term debt

EBITDA Analysis

(continued)

- What is included in EBITDA analysis?
 - Sales (increasing, decreasing, staying flat)
 - Gross Profit Margin (improving, slipping, staying flat)
 - Selling, General & Administrative Expenses (fixed verses variable, economies of scale, properly managed)
 - Other Income or Expenses
 - EBITDA Margin (increasing, decreasing, staying flat)
 - Comparison to Debt Payment requirements

UCA Analysis

- What are the benefits of using UCA Cash Flow?
 - Provides insight into sources & uses of cash from operating, investing and financing

UCA Cash Flow Summary

- Revenues and expenses appear on an income statement when underlying business transactions are recognized according to GAAP
- Timing of Revenue/Expense recognition is based on the accrual accounting principal – not directly connected with timing of cash inflows/outflows.

UCA Cash Flow Summary (continued)

- Balance sheet serves as a storage area for cash flows related to other accounts on the income statement
 - Cash payment to supplier before the related expense is recognized (prepaid expense)
 - Expense recognized before a cash payment has been made (accrued expense)

UCA Cash Flow Summary (continued)

- Cash flow calculations help you look behind accrual accounting
 - Clarifies actual cash receipts/payments
- Cash flow analysis
 - Starts at top of income statement
 - “Strips” accrual accounting effects
 - Exposes actual cash inflows/outflows

UCA Cash Flow Summary (continued)

- Major changes from accrual to cash basis
 - Eliminate any expenses that did not involve cash in the period (e.g. depreciation)
 - Adding all balance sheet changes that provided cash (e.g. increases in liabilities, decreases in assets)
 - Subtracting all balance sheet changes that used cash (e.g. decrease in liabilities and increases in assets)

UCA Cash Flow Summary (continued)

- Must include all cash consuming items which do not appear on the income statement, i.e. Dividend payments, Capital Expenditures and Term Debt repayment.

UCA Cash Flow Statement

UCA Cash Flow Statement is essentially broken down into 3 general categories

- How they made it (Operating)
- How they spent it (Investing)
- How they funded it (Financing)

UCA Cash Flow Statement

How They Made It

	Cash Income from Sales
Less	Cash production costs
Less	Cash operating expenses
Plus (Less)	Misc. Cash Inc.(Exp.)
Less	Income Taxes Paid
Results in Net Cash After Operations	

UCA Cash Flow Statement

How They Made It

(continued)

- Cash Income From Sales
 - Cash collected in one year from sales made in that, and previous years.
 - Impact from A/R
- Cash Production Costs
 - Cash expended during the year in producing goods for sale.
 - Impact from Inventory and A/P
- Gross Cash Profit
 - Amount of cash remaining after deducting cash production costs from cash sales.

UCA Cash Flow Statement

How They Made It

(continued)

- Understanding the Operating Cycle is critical to understanding how a company generates cash from operations
- In short, the Operating Cycle is how long it takes for a company to acquire/manufacture inventory, sell the product and collect from the sale.
- There are several cash flow impacts within the Operating Cycle known as swing factors

UCA Cash Flow Statement

How They Made It

(continued)

Swing Factors (A/R, Inventory and A/P)

- Can have huge impact on cash position of company
- More they “swing”, more impact on short term, working capital needs
- Good control of fundamentals critical, poor management of swing factors can trigger bankruptcy
- Win-Win: Good control of fundamentals and very effective management of swing factors
- Especially critical in high growth companies

UCA Cash Flow Statement

How They Made It

(continued)

A/R Drivers

Sales volume
Terms
Collection Process
Credit worthiness of clients

Inventory Drivers

Availability (Supply chain)
Alternative suppliers
Lead time

A/P Drivers

Terms
Credit Limits

UCA Cash Flow Statement

How They Made It

(continued)

- Cash Operating Expenses
 - Cash expended for Selling, General and Administrative expenses
 - Operating Leverage (fixed verses variable expenses)
 - Impact from Prepaid Expenses and Accrued Expenses
- Cash Operating Income
 - Amount of cash remaining after deducting cash operating expenses from Gross Cash Profit.

UCA Cash Flow Statement

How They Made It

(continued)

- Net Cash After Operations
 - Amount of cash remaining after adding cash received or deducting cash paid for Miscellaneous Cash Income (Expense) and for Income Taxes
 - Miscellaneous Cash Income (Expense) excludes Gain (Loss) on Sale of Asset, as these are captured in the Investing Section of the UCA
 - Miscellaneous Cash Income (Expense) excludes Extraordinary Gain (Loss), as these are captured in the Financing Section of the UCA
 - Cash equivalent of EBITDA (EBIDA for C Corps)
 - Used as numerator in debt coverage calculations

UCA Cash Flow Statement

How They Spent It (Part I)

Debt & Distributions

- Financing Costs
 - Interest Expense
 - Principal Payments on LTD
 - Shareholder Distributions

Results in Net Cash After Debt Amortization

UCA Cash Flow Statement

How They Spent It (Part I)

(continued)

- Financing Costs

- Cash expended for Interest on debt
- Cash Dividends/distributions/withdrawals paid to shareholders. These may be in the form of K-1 distributions or loans/advances to or from shareholders
- UCA model generally shows loans/advances to or from shareholders in Financing Section. Allocating as a distribution is a manual process

- Net Cash Income

- Net cash after operations less financing costs but before principal payments on long term debt

UCA Cash Flow Statement

How They Spent It (Part I)

(continued)

- Cash After Debt Amortization

- Cash position after all operating expenses, financing costs and scheduled debt amortization are paid. If positive, company generates sufficient cash to pay interest and repay scheduled debt. If negative, Company must seek outside resources to meet financing obligations (e.g., more debt or equity injection).
- Scheduled debt amortization is based on Current Portion of Long-Term Debt from the prior period
- Manual adjustments can be made for principal payments on loans incurred during the period

UCA Cash Flow Statement

How They Spent It (Part II)

Capital Expenditures & Investments

- Plant & Investments
 - Capital Expenditures
 - Investments
 - Intangibles

Results in Financing Surplus (Requirement)

UCA Cash Flow Statement

How They Spent It (Part II) (continued)

- Cash Paid for Plant & Investments
 - Cash spent on Plant & Capital needs, Investments and Intangibles
 - Plant & Capital Expenditures represent fixed asset replenishment and expansion. The calculation is $\text{Net Fixed Assets (prior period)} - \text{Depreciation Expense (current period)} + \text{Gain (Loss) on Sale of Assets} - \text{Net Fixed Assets (current period)}$.
 - Investments generally include assets held outside of the normal course of business. These may include investment property, investment in other ventures, etc

UCA Cash Flow Statement

How They Spent It (Part II) (continued)

- Intangibles include goodwill from acquisitions, loan costs, intellectual property, etc. Many banks consider Due from Shareholders as Intangible assets, though changes in this account are better categorized as Distributions.
- Financing Surplus (Requirement)
 - Amount of financing needed to fund operations, repay debt amortization, and meet investing activities
 - Calculated by deducting Cash Paid for Plant & Investment from Cash After Debt Amortization

UCA Cash Flow Statement

How They Funded It

- Short Term Debt
- Long Term Debt
- Shareholder Debt/Equity

UCA Cash Flow Statement

How They Funded It

(continued)

- Cash From (To) External Financing
 - Primarily includes Bank debt but may include third party debts such as buyout notes and other non-bank financing
 - Includes changes in short-term financing, such as working capital lines and other short-term notes
 - Includes changes in long-term debt other than those accounted for in Current Portion of Long-Term Debt used in determining Cash After Debt Amortization. These may include new debts associated investing activities or permanent working capital. In some instances, it may include an acceleration of principal payments.

UCA Cash Flow Statement

How They Funded It

(continued)

- Cash From (To) Internal Financing
 - Generally, there is limited activity in this space
 - Change in Related Entity Accounts represent the most common and includes cash from (to) related entities. These are different than Investment in Related Entities. These are generally considered for short term purposes.
 - Change in Equity is most noted as changes in Paid in Capital and is generally a contribution of equity as Dividends & Distributions are noted as Financing Costs in a different section of the UCA model

UCA Cash Flow Statement

How They Funded It

(continued)

- Extraordinary Gain (Loss) includes non-recurring income/expense from extraordinary sources. Examples include lawsuits, insurance claims, etc. Many Banks categorize Payroll Protection Plan and Employee Retention Credits as Extraordinary Events for underwriting purposes.
- Cash After Financing
 - Amount of cash remaining (needed) after operating, investing and financing activities

UCA Cash Flow Statement Verification

- Actual Change In Cash
 - Amount by which the cash account on balance sheet changes from previous year or accounting period.
 - If calculated properly, Cash After Financing will equal the actual change in cash.

Stages of a Cash Crisis

- Stage 1 - Cash Concern
 - Liquidity becomes strained
 - Management makes cash management a priority
 - Expenses are reduced; salaries cut or raises delayed or reduced; bonuses cut or reduced; overhead controls initiated and new products curtailed
 - A/R collection improved; Inventory reduced; A/P “stretched”.
 - Cap Ex reduced.

Stages of a Cash Crisis (continued)

- Stage 2 – Cash Crunch
 - Expenses further reduced
 - Cap Ex eliminated
 - Employee layoffs
 - Nonessential assets sold
 - Salaries frozen
 - Assets refinanced
 - Maintenance of equipment delayed or dropped
 - Additional borrowings sought or debt restructured
 - New creditors sought
 - Dividends cut or eliminated

Stages of a Cash Crisis (continued)

- Stage 3 – Complete Crisis Mode
 - Layoffs continue – now include officers
 - Key employees resign
 - Plants or stores closed
 - Overdrafts commonplace
 - Loans become past due
 - Lines of credit become “evergreen”
 - Taxes not paid
 - Professional services reduced (e.g. audit to compilation)

UCA Cash Flow

Let's look at some
examples!