

# CASH FLOW RATIOS TO VALUE INVESTMENTS

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## Introduction

- SAFS 95, AC 118, the Cash flow statement became integral part of financial statements
- Traditional ratio derived from the income statement and balance sheet are used for financial analysis
- With the cash flow statement new information on cash flows became available
- A need arose to develop cash flow ratios for inclusion in a financial analysis

# The cash flow statement

Traditional ratios are used for a financial analysis

Research has shown limitations

- Balance sheet is static
- Income statement includes non- cash items
- Cash flow statement is dynamic

Records changes in other financial statements

Focuses on cash available for investments

Cash flow statement bridge information gap between accrual accounting and cash flow

Format is designed to disclose

- Operating activities
- Investing activities
- Financing activities

# Cash flow statement

## Operating activities

- Disclose cash flow related to primary cash generating activities, production and sales

## Investing activities

- Include reinvestment in assets

## Financing activities

- Shows refinancing of debt

Investing and financing activities support operating activities

Reinvestment in assets and refinancing of debt shows success

Assist users of financial statements

- Ability to generate cash flows
- Meet obligations
- Need external financing

# Cash flow statement

Analysis of the cash flow statement will address questions as:

- Accuracy of past assessments of future cash flows
- Relationship between profitability and net cash flows
- Greater future net cash inflow, greater chance to withstand changes in operations
- Highlights liquidity and working capital management

Use in conjunction with other financial statement will evaluate

Changes in net assets

Financial structure

Ability to respond to opportunities

- Compare to other entities

# Cash flow statement

## Analysis of the cash flow statement

- Strength of internal cash flow generation positive or negative
- Were obligations met with operating cash flow
- How was cash invested financed – internal or external
- Were dividends paid from internal cash flow or external financing
- Is external financing short- or long term debt
- Does entity have excess cash flow after capital investments

Cash flow ratios may be used to answer questions

# Analyzing financial statements

For whom and for what purpose

- Balance sheet – financial health
- Income statement – financial result
- Cash flow statement – cash flow

Investor – predict future performance

Internal analysts – internal management and control

Lender – cash flow and financial position

Credit analyst – future cash flow and risks

# Analyzing financial statements

Techniques for financial analysis:

Ratio analysis

- Liquidity – can pay debts
- Asset management – effective management of assets
- Debt management – extent of debt financing
- Profitability – performance on short term
- Market value – relates share price to earnings, cash flows and book value per share

If results of other ratios are good – the market value will be high and share prices as high as can be expected

# Comparing cash flow and traditional ratios

## Liquidity ratios

- Current ratio – cash to debt
- Quick ratio – critical needs

## Asset management

- Fixed asset turnover – cash to debt
- Asset turnover – reinvestment

## Debt management

- Total debt – cash to debt
- Interest cover – cash interest cover
- Fixed cover – cash fixed cover

## Profitability

- Return on sales – cash to sales
- Return on assets – cash to assets
- Return on equity – cash to equity
- Return on capital employed – cash to income

# Comparing cash flow and traditional ratios

## Liquidity ratios

- Cash flow more reliable – what is more liquid than cash
- Traditional ratios do not reflect shortage of cash
- WT Grant had positive liquidity ratios and severe liquidity problems
- Cash flow ratios – cash flow from operations to satisfy cash demands beyond required for operations

# Comparing cash flow and traditional ratios

## Asset management ratios

### (Activity or Turnover ratios)

- Measures productivity of cash flow from operations
- Cash generating ability not only to meet obligations but to finance capital expenditure from internal funds
- Competitive advantages depends on meeting obligations and ability to finance capital investments out of internally generated sources
- Maintain at least current asset base for production of future earnings

# Comparing cash flow and traditional ratios

## Debt management ratios

- Meet obligations
- Pay dividend
- Need for external financing
- Ability to continue as going concern depends on meeting principal debt payments
- Measure solvency

# Comparing cash flow and traditional ratios

## Profitability ratios

- Cash generation relate to profitability and returns paid to investors
- Can have positive earnings but negative cash flow
- Laker airways – profits increased as failure approached
- Quality of income – ability to generate income to enhance production of future earnings
- Income is replaced with cash flow from operations as income statement includes many non-cash items

# Selecting cash flow ratios

Traditional ratio models derived from accrual financial statements

Cash flow models are based on principle that value of an entity equals net present value of expected future cash flow

Insufficient cash will result in bankruptcy

Cash flows should be included in financial analysis and is component of each ratio

Eight cash flow ratios were selected to serve objectives of cash flow statement:

- Ability to generate future cash flows
- Ability to meet obligations, pay dividends and need for external financing
- Reasons for differences between income and cash flows
- Financial position of investing and financing transactions

# Cash flow ratios selected from financial analysis

## Performance ratios:

- Cash flow to sales
- Cash flow to assets
- Cash flow to income

## Liquidity and debt management ratios:

- Cash flow to total debt
- Critical needs coverage
- Cash interest coverage
- Dividend coverage

## Asset management ratios:

- Reinvestment

# Cash flow ratios selected

## Cash flow to sales ratio:

- Measures sales realised in cash
- Indicator of ability to generate cash
- Earnings potential is determinant of credit protection for Standard and Poor's
- Strong stable earnings enhance ability to generate equity capital, attract external capital, with stand business adversity
- Better debt servicing ability of an entity than analysis of earnings
- Sales can be inflated with no cash advantage
- Slow cash collections will be reflected in cash flow statement
- Link between inflow and outflow – failure of any part can cause entity to fail

# Cash flow ratios selected

Cash flow to asset ratio:

Traditional ratios

- Expected to measure asset management and potential returns to investors
- Turnover to support investment in assets not sufficient investment to support future cash flows
- Profitability measure
- Provide little of future cash flows

Cash flow ratios

- Cash generating ability of the asset base
- Asset utilisation to crease cash flows
- Better indicator of performance
- Strong cash returns from assets help generate future investments

# Cash flow ratios selected

## Cash flow to income ratio:

- Cash flow statement measures difference between income and cash flows
- Measures adequate production of cash flows to support operations to generate future earnings
- Shows amount of income realises in cash
- Ability to continue cash flow generations at current levels of income and investment in assets to enhance future earnings

# Cash flow ratios selected

Critical needs coverage ratio:

- Traditional ratios fail to capture specific measures of liquidity and solvency
- Cash flow indicators measure ability to meet obligations beyond operating needs, such as interest and debt
- Cash flow ratios measures ability to cover interest, short term liabilities and dividends
- Short term liquidity measure and excludes long term solvency
- Can survive on long term if immediate obligations are met

# Cash flow ratios selected

## Cash interest coverage ratio:

- Identifies ability to pay for use of debt
- Decreasing trend is indicator of progressive deterioration
- Hard times rely on outside financing to cover debt
- Increase interest liability
- If interest is covered it may survive as debt is externally financed
- Reliance on external financing to cover obligations will cause ratio to decline
- Ratio measures whether cash remains to pay interest after current liabilities

# Cash flow ratios selected

## Cash dividend coverage ratio:

- Determine how well dividends are covered
- Measures potential for increased dividends
- Measures cash available for dividends after interest, current debt and capital expenditure
- In financial difficulties tendency not to pay dividends
- Can indicate financial difficulties
- Stakeholders can forfeit dividends for survival

# Cash flow ratios selected

## Reinvestment ratio:

- The asset turnover ratio provides information to support investment in assets
- Does not measure sufficient investment to support future cash flow generation
- Competitive advantage depends on ability to maintain capital assets
- Reinvestment is basis for future cash flows
- Ratio indicates ability to finance capital expenditure from internal sources
- Reinvestment in assets should be faster than writing depreciation.
- Entity more efficient if depreciation have low impact on cash from operations
- Failure to replace assets reduce potential for long term cash flow

## Summary and conclusions

Traditional accrual ratios provide information on liquidity, profitability, debt and asset management and potential future returns to investors

Does not address cash generating ability cash flow ratios enhance traditional ratios

Income and cash flow information are required for financial analysis

If current cash flows predict future financial status then past and present cash flows should indicate financial health, value and probability of financial failure

What good are an entity's earnings if they don't produce cash for reinvestment or for rewarding shareholders?  
Many investors have informed the press "Cash is king, after all"

Ciesielski (1999)