Measuring cash flow flexibility of companies – the cumulative index-difference

B.W. Steyn*

Department of Accounting, University of Stellenbosch
Stellenbosch 7600, Republic of South Africa
bws1@maties.sun.ac.za

W.D. Hamman and E v.d.M. Smit

Graduate School of Business, University of Stellenbosch,
PO Box 610, Bellville 7535, Republic of South Africa

November 2002

Cash is king. Even a highly profitable company can find itself in search of financing due to a lack of cash to honour its obligations. If this situation is only temporary and external sources of finance are freely available, this cash flow obstacle does not have to be detrimental to the stakeholders of the company.

However, if the poor cash position of a company is not temporary, but rather an integral part of its structure and a result of its strategy, stakeholder interest may be at risk. Although insolvency is seldom the outcome, such companies find themselves struggling because of their cash flow inflexibility.

The cumulative index-difference aims to identify companies that are cash flow inflexible, in order to enable stakeholders to take timely measures to prevent a negative outcome. With adjustments in strategy and preventative measures taken, the cash flow positions can be improved to prevent a disaster.

*To whom all correspondence should be addressed.

Introduction

Companies that publish their financial results in the media are disclosing ratios such as cash flow from operations as a percentage of EBITDA (Earnings before interest, taxation, depreciation and amortisation) for the year. In addition to that, Hawkins (Thomas, 2002: 56) has promoted the use of the cash realisation ratio (the net operating cash flow after taxation as a percentage of net income) when analysing financial statements. Both these ratios are based solely on one year's financial information and as such may be meaningless, as a company can influence these ratios by managing their non-cash working capital. As CS Holdings (*Business Day*, 2002: 20) acknowledged in their published financial information, the ratio for 2002 is excellent, but it will not be sustainable, as they had managed their debtors' book during the year and it was therefore probably a once-off event.

Merril Lynch (Thomas, 2002: 56) is quoted to have said that the ability to realise earnings in cash is an important characteristic of sustainable high-quality results. Both the above ratios, although using two different versions of earnings and cash flow, are indicative of how much of the earnings are realised in cash during that specific period. The sustainability of results surely refers to more than one financial period and a lot can be learned about the structure

and cash flow flexibility of a particular company by studying more than one financial period.

A much more meaningful ratio would be one that incorporates the factors that play a role in the cash flow, and consequently its sustainability. In this article the relationship between the earnings and the cash flow of a company over a few financial periods is used to develop the cumulative index-difference as a measure of the cash flow sustainability of results, as well as the cash flow flexibility of such a company.

Analysing a company's performance

The search for successful prediction models and crucial indicators are as contentious as ever before. Academics have been debating the value of information contained in the income statement and the cash flow statement. The fact is that both statements are provided in the financial reports of companies and both statements do contain different information and have value. Why not use both in analysing the company and get the optimum value?

Henderson and Maness (1989: 2) observed that it is quite straightforward to interpret the income statement and the cash flow statement when the two agree, for example, a profitable company with a positive cash flow. However, it is

a more complex analytical problem if a profitable company has a negative cash flow or the unprofitable company has a positive cash flow.

It does not matter how profitable a company is, at the end of the day it can only be successful if it is able to pay its debts. Moreover, cash is necessary to pay debt. According to Henderson and Maness (1989: 71) 'the use of both cash flow and income statement data provides information on the ability of a firm to turn income into cash. The higher the ratio of cash flow to net income, the more reliable the profitability measures as indicators of performance'.

Liquidity and financial flexibility

There is a need for a ratio or model that gives an indication of companies that experience financial distress, and thereby either give an early warning signal of possible bankruptcy, or when identified early, steps can be taken to turn these companies around.

Such a ratio will therefore have as a primary focus: companies that experience liquidity problems, or companies that are not financially flexible. These two concepts can be defined as follows: 'Liquidity refers to the availability of cash in the near future after taking account of financial commitments over this period', while financial flexibility is 'the ability to take action that will eliminate an excess of required and expected cash payments over expected cash resources' (Loftus & Miller, 2000: 23-24). According to Loftus and Miller (2000: 260) a financially flexible company is in less danger of becoming insolvent than a financially inflexible company, other things being equal, because the more financially flexible a company is, the more it will be able to recover relatively quickly.

Cash flow information is the key in determining the financial flexibility and liquidity position of a company.

Cash flow information

A company has as its primary objective to be profitable and to convert such profits into cash as reflected in the cash flow from operations. This cash flow is used to pay interest, taxation and dividends. The remaining cash, the cash flow from operating activities, ought to be positive, as this is a company's only sustainable source of internally generated cash. It is essential for replacing non-current assets, funding expansion and the repayment of long-term liabilities.

If this internally generated cash is not sufficient and the available cash-on-hand has been depleted, the company relies on other internal sources such as selling non-productive non-operating assets, which is a once-off source. Then it has to resort to outside sources such as borrowings and issuing equity shares to existing and new shareholders (Wallace, Choudhury & Pendlebury, 1997: 6).

The greater the company's dependence on external financing, the more liquidity becomes an issue. According to Mulford and Comiskey, (1996: 347) the use of outside sources exposes the company to new risks. New interest charges and repayment of borrowings necessitate a new cash outflow, while new equity could lead to earnings dilution. Most important, perhaps, is that the risk always exists that new sources of cash might not be available, especially in a time when additional financing is crucial.

Growth

According to Hull (1990) the cash from operating activities will be influenced by a number of factors such as:

- the operating profit of the previous year plus depreciation;

- the growth in revenue;

- changes in the gross profit margin and the proportion of revenue to sales-, general- and administrative expenses;

- changes in the proportion of trade receivables, trade payables and inventories to sales as well as prepaid and accrued expenses;

- interest paid; and

- taxation paid.

Mulford and Comiskey (1996: 343) agree that the company's rate of growth, the operating margin and the accounts receivable, inventory and accounts payable requirements will all influence the cash flow from operating activities.

According to Mulford and Comiskey (1996: 343), assuming a positive operating profit margin, the net effect of revenue growth should be an increase in cash flow from operating activities. However, a company should be cautious when relying on growth to create positive cash flow as it also affects accounts receivable, accounts payable and inventories. The effect of growth will be unique to each company, but if the company grows too quickly in relation to its capacity, it could result in a cash flow that is too small to carry the expansion and in the worst-case scenario, a negative cash flow (Steyn, Hamman & Smit, 2002).

Growth leads to an increase in accounts receivable and inventory, as well as an increase in accounts payable. An increase in the accounts receivable not only leads to profit not being turned into cash, it also increases the likelihood of a write-down of the accounts receivable and a charge to earnings. Similarly, there will be an increase in cash outflow to pay for the increase in inventories and as inventory levels increase, the probability of inventory write-down is increased (Mulford & Comiskey, 1996: 346). Thus the inference that a company experiencing trouble in realising earnings into cash, will probably not be able to sustain such earnings.

The cumulative index-difference

The cumulative index-difference was developed specifically to incorporate the main factors that influence cash flow from operating activities. The variables are profit after taxation and the cash flow from operating activities before the deduction of dividends paid (CFObDiv). The profit after taxation is before any items that form part of the investing activities of the company rather than the operating activities, such as depreciation, amortisation and impairment losses (PaTbDA). The main difference between the earnings and cash flow measures is the change in non-cash working capital and other accruals.

Growth in revenue will be reflected in net profit, maybe not exactly in the same proportion; however, net profit will reflect the growth pattern. The PaTbDA, expressed over a few financial periods as an index, will take account of the growth in the earnings. The cash flow measure, CFObDiv, is expressed as an index in relation to PaTbDA. These indices will consequently reflect the growth of the company, the trend in the net profit as well as the trend in the cash flow relative to each other.

In Table 1, the last financial year of the company, if the company is still listed that is 2000, or if the company has been delisted or has been part of a business combination, the last year of the company's listing in its original capacity, has been used as the base year. The PaTbDA for the last year equals 1, or if it is a net loss, -1. The indices for earnings of the previous years as well as the cash flow are then calculated.

Table 1: Calculation of the cumulative index-difference

	PaTbDA	CFObDiv	PaTbDA index	CFObDiv index	CFObDiv – PaTbDA
Year 1	700	500	0,7	0,5	-0,2
Year 2	800	300	0,8	0,3	-0,5
Year 3	900	0	0,9	0,0	-0,9
Year 4 (base)	1 000	-100	1,0	-0,1	-1,1

The cumulative index-difference is calculated as follows over:
One year	-1,1
Two years	-2,0 (-1,1 + -0,9)
Three years	-2,5 (-2,0 +-0,5)
Four years	-2,7 (-2,5 + -0,2)

If the cumulative index-difference is negative, it means that the CFObDiv is less than the PaTbDA. The cumulative index-difference reflects the change in non-cash working capital, other accruals and the effect of growth. A high negative ratio indicates a company whose cash flow from operating activities is sending out a warning signal of financial inflexibility. One aspect still absent is the extent of the profit margin. The greater the profit margin, the higher the possibility of a positive cash flow and thus higher financial flexibility. The interpretation of the cumulative index-difference must be done together with a study of the profit margin and extent of cash flow from operating activities. The revenue growth ratios and ratios of non-cash working capital to revenue will indicate the possible reasons for the financial inflexibility.

The fact that the last financial year has been used as the base year can be biased, due to the fact that the variables of the last year of a company's existence can already be out of line and thus give a biased result. Similarly, the company that identified the problems and started to rectify it can also give a biased result when using the last year as a base year. Therefore, the index-difference was also calculated by using different years as the base year.

Interpretation

There are different degrees of financial inflexibility. Each company must be interpreted on its own merits and special circumstances. Financial inflexibility will lead only in a few cases to insolvency. Many companies lacking financial resources and thus the ability to sustain its results will find itself part of a business takeover. Other companies will find the outside sources of financing that they need for survival, be it short term.

Some companies may experience a period of financial stress during which they have problems paying their debt as it falls due, however, could be in a position to convince their lenders and creditors that their net cash flow from operating activities will improve (Loftus & Miller, 2000: 29). Companies that have just sufficient cash for their day-to-day activities can avoid insolvency in the medium-term by failing to replace or invest in productive assets in order to maintain the earnings position (Loftus & Miller, 2000: 27).

It is important to analyse the company, find the reasons for the inflexibility, and observe whether they are temporarily. This could be the case because the company has only just started and is in an early growth phase, where it can be expected that cash flow from operating activities will be negative, and the situation will turn around eventually. Examine whether there are possible changes the company can implement to improve its financial inflexibility and examine whether any of these changes has been implemented.

It is important to note that a company that is financially inflexible and in dire need of financing from outside sources, will have to change some of its strategies or its structure, otherwise the situation will repeat itself. The fact that a company did a rights-issue as source of finance does not guarantee its survival. If the company fails to improve its inflexibility, that particular source of finance will be depleted once more and the search for fresh financing will start yet again.

The cumulative index-difference in practice

As companies with net losses are logically more at risk, the authors are particularly interested in identifying profitable companies where there exists some doubt about the sustainability of earnings, because of a warning signal that the cash flow is inflexible.

The industrial companies used were listed on the JSE Securities Exchange some time during the period 1991 to 2000. 350 companies had been listed for at least three years or longer during this period, 300 for at least four years or longer and 269 for at least five years or longer. The descriptive statistics of these companies are summarised in Table 2. Although the descriptive statistics are a pooling of many different companies, it still gives an indication of exceptionally high (above third quartile) and low (beneath first quartile) ratios that can provide the cause of the inflexibility.

Table 2: Descriptive statistics

	3-year average: 350 companies listed				4-year average: 300 companies listed				5-year average: 269 companies listed			
	Growth[1]	N-C WC[2]	PAT[3]	CFO bDiv[4]	Growth	N-C WC	PAT	CFO bDiv	Growth	N-C WC	PAT	CFO bDiv
Median	12,0%	14,0%	4,5%	4,5%	12,3%	14,2%	4,4%	4,7%	12,0%	14,2%	4,3%	4,9%
First quartile	2,1%	6,6%	1,2%	1,2%	3,9%	7,1%	1,7%	1,5%	4,5%	7,1%	1,9%	1,9%
Third quartile	27,7%	23,0%	8,4%	8,8%	26,3%	23,0%	8,1%	8,9%	23,8%	22,8%	7,7%	8,3%

1   Growth = The simple average of the percentage of growth in revenue per year
2   N-C WC = Non-cash working capital = Average of (accounts receivable + inventories – accounts payable)/revenue per year
3   PAT = Average of net profit after taxation over revenue per year
4   CFObDiv = Average of cash flow from operating activities before dividends over revenue per year

A large negative cumulative index-difference implies financial inflexibility. As the choice of the base-year can influence the cumulative index-difference, three different years were used as base, namely the last year, the year before the last, and the first year included in the cumulative index-difference. The top decile of the cumulative index-difference calculated for all the companies over different cumulative time spans and with different base-years, are shown in Table 3.

Table 3: Top decile of cumulative index-difference

Base-year	2-year cumulative	3-year cumulative	4-year cumulative	5-year cumulative
First year included		-3,4	-4,3	-4,5
Year before last	-2,1	-2,6	-3,0	-3,2
Last year	-1,8	-2,3	-2,4	-2,5

In order to identify the companies that are probably cash flow inflexible, it was decided to use the 3-year and the 4-year cumulative index-differences as indicators. The 2-year cumulative index-difference is calculated over only two years, and a two-year period may be too short in most instances to categorise a company clearly as being cash flow inflexible, although it already could be an indication. A five-year period may be too long to wait to see whether a company falls in the risk category, because the situation can already be beyond salvage at that stage. On the other hand, the 5-year cumulative index-difference may be useful, in that the longer a company remains in a cash flow inflexible position; it probably becomes more difficult to rectify its position.

Table 4 lists all the companies not resulting in a net loss on average that had a cumulative index-difference:

A.   within the identified range for all six of the 3-year and 4-year calculations;

B.   within the identified range for at least four of the six 3-year and 4-year calculations; and

C.   within the identified range for all three of the 3-year calculations and that had only been listed for three years.

The 5-year cumulative index-differences for all the different base-years for all seven category A companies, also fall within the identified range for cash flow inflexibility. Acrem Holdings, Home Choice Holdings, JD Group, MIH, Profurn, Silveroak Industries and Smart Group Holdings therefore all had been in a cash flow inflexible position over at least the last five years. Only JD Group and MIH are still listed and had not as yet had a rights-issue or had been part of a business combination, however, delisting is looming for MIH.

In Table 5 the individual ratios for the companies included in Table 4, are given, which is necessary to find the cause of the probable cash flow inflexibility. The average cash flow ratio calculated, is the cash available from operating activities before dividends are paid as a percentage of revenue. From this cash source, long-term liabilities still have to be honoured and reinvestment in productive non-current assets needs to be financed. It is thus not sufficient for this ratio to be positive.

The ratios in Table 5 also depict the trends in the growth in revenue, PAT and CFObDiv, which proves useful when observing whether the companies had already taken steps to improve their cash flow flexibility. Unfortunately, if a company remains too long in a cash flow inflexible position, without changing some of the factors contributing to its cash flow inflexibility, the eventual rectifying steps is too late to effect a cash liquidity turnaround.

Table 4: Companies with large negative index-differences

Company	Category per p4	Last year	Last year		Year before last		First year included	
			Cum3	Cum4	Cum3	Cum4	Cum3	Cum4
Acrem Holdings	A	1999	-7,6	-9,5	-6,5	-8,0	-9,3	-10,1
AM Moolla Group	C	2000	-35,1		-9,7		-10,9	
Amalgamated Appliance Holdings	C	2000	-4,0		-5,2		-3,8	
Arthur Kaplan Jewellery Holdings	B	1997	-2,3	-2,4	-3,8	-4,0	-4,4	-7,4
Autoquip Group	B	2000	-11,4	-11,0	-3,9	-3,8	-2,1	-2,3
Bell Equipment	B	2000	-1,4	-3,0	-2,4	-5,2	-4,3	-15,7
Boymans	B	1995	-2,4	-3,0	-4,8	-6,1	-2,8	-4,1
Carson Holdings	B	1999	-3,0	-3,5	-1,8	-2,1	-4,2	-10,0
Delswa	B	1995	-2,8	-3,5	-4,7	-5,9	-4,3	-4,0
Home Choice Holdings	A	2000	-29,3	-33,2	-4,4	-5,0	-8,7	-16,9
JD Group	A	2000	-2,8	-3,1	-2,9	-3,2	-3,6	-4,8
Kopp Electronics	B	1995	-1,3	-1,4	-3,6	-3,7	-6,0	-7,8
Leisurenet	B	1999	-2,1	-2,1	-3,4	-3,4	-5,3	-7,7
Log-Tek	B	1997	-2,4	-2,3	-3,1	-3,0	-3,1	-4,8
Metro Cash and Carry	B	2000	-2,0	-2,2	-3,0	-3,2	-5,1	-7,0
MIH	A	2000	-5,3	-8,0	-3,8	-5,7	-58,1	-9,7
Morkels Retail Group	B	1997	-1,9	-1,9	-3,1	-3,2	-4,2	-6,6
Nu-World Holdings	B	2000	-2,2	-2,4	-3,0	-3,3	-3,4	-5,1
Profurn	A	2000	-2,6	-3,0	-3,9	-4,4	-6,3	-17,0
Seardel Investment Corporation	B	2000	-4,0	-5,4	-5,8	-7,8	-1,4	-3,1
Silveroak Industries	A	1995	-14,0	-15,0	-4,1	-4,4	-6,9	-5,6
Smart Group Holdings	A	1997	-3,5	-3,7	-5,7	-6,1	-8,4	-10,7
Spur Steak Ranches	B	1999	-1,0	-1,1	-3,0	-3,0	-3,8	-4,5
Trencor	B	2000	-3,4	-3,3	-3,1	-3,0	-2,1	-3,5

Profurn, for example, had a revenue growth of 88% during 1997, 82% during 1998 and 71% during 1999. The company's structure could not sustain this growth and it decreased the revenue growth to 3% during 2000 and 2% during 2001. The cash flow position of the company was already in such a state that this decrease could not salvage it and FNB, the major banker of the company, had to rescue the company from liquidation in 2002.

Each company is analysed separately in Table 6. For 18 of the 24 companies, the financial inflexibility either culminated in the delisting of the company, it being part of a business combination, or having to take part of a rights-issue. 15 of the 24 companies had a negative average CFObDiv over the last three years. Only three of the 24 had a CFObDiv above the first quartile.

The six companies that are still listed, which had not yet had a rights-issue or had been part of a business combination, are Amalgamated Appliance Holdings, Bell Equipment, JD Group, MIH, Seardel Investment Corporation and Trencor.

Naspers owns 67% of MIH Holdings. It was announced at the end of September 2002 (Petros, 2002) that since MIH's structure is not optimal, this subsidiary will be restructured by the end of 2002. Naspers will absorb MIH after which MIH will be delisted.

On 11 June 2002, it was reported that Merril Lynch downgraded its medium-term recommendation on the shares of JD Group from 'neutral' to 'reduce/sell', due to concern about the debtors' book and the cash flow position (Mathews, 2002).

Conclusion

It is important for a company to realise its profits into cash. The cumulative index-difference can measure whether the company is cash flow inflexible and whether a company will have to take steps in order to improve its cash flow.

Table 5: Ratios per company

Company	Last year	3-year average				4-year average				5-year average			
		Growth	N-C WC	PAT	CFObDiv	Growth	N-C WC	PAT	CFObDiv	Growth	N-C WC	PAT	CFObDiv
Acrem Holdings	1999	-0,9%	122,1%	0,3%	-6,4%	1,7%	123,5%	-0,5%	-6,9%	6,4%	126,1%	0,9%	-5,2%
AM Moolla Group	2000	-2,4%	53,0%	5,5%	-22,8%								
Amalgamated Appliance Holdings	2000	52,9%	25,9%	4,7%	-2,5%								
Arthur Kaplan Jewellery Holdings	1997	34,2%	46,5%	7,4%	-0,8%	33,4%	46,7%	7,2%	0,2%	26,0%	46,6%	6,8%	1,9%
Autoquip Group	2000	2,3%	19,0%	0,6%	-1,2%	11,8%	19,2%	1,5%	0,3%	10,5%	19,5%	1,9%	0,6%
Bell Equipment	2000	23,5%	36,7%	2,7%	-0,4%	13,2%	36,1%	2,3%	-3,1%	15,9%	35,6%	2,5%	-2,7%
Boymans	1995	5,6%	36,9%	0,8%	0,0%	5,7%	36,3%	0,7%	0,1%	4,3%	35,6%	0,7%	-0,1%
Carson Holdings	1999	70,0%	41,8%	11,8%	1,6%	76,7%	41,1%	12,2%	0,9%				
Delswa	1995	14,0%	49,6%	3,5%	-1,2%	9,7%	48,8%	3,7%	-0,6%	7,9%	47,6%	4,1%	1,4%
Home Choice Holdings	2000	32,1%	74,2%	7,1%	-13,6%	48,0%	72,8%	7,4%	-13,3%	47,8%	71,1%	7,5%	-13,0%
JD Group	2000	27,3%	85,1%	10,2%	-0,2%	20,4%	81,7%	9,7%	1,0%	16,9%	78,9%	9,2%	1,9%
Kopp Electronics	1995	41,5%	22,0%	6,2%	1,1%	27,3%	21,7%	5,4%	1,4%	25,0%	21,7%	5,1%	1,6%
Leisurenet	1999	34,7%	40,8%	9,4%	-0,6%	56,4%	39,9%	9,4%	0,9%	62,4%	39,6%	9,5%	1,4%
Log-Tek	1997	9,7%	17,4%	3,1%	0,5%	21,2%	17,2%	3,2%	1,5%	16,7%	17,0%	2,1%	0,6%
Metro Cash and Carry	2000	92,6%	1,3%	1,3%	0,0%	69,0%	1,1%	1,3%	0,2%	56,3%	0,8%	1,4%	0,2%
MIH	2000	32,9%	-12,4%	15,9%	-3,4%	42,2%	-17,6%	33,1%	-6,3%	38,4%	-18,1%	29,3%	-6,6%
Morkels Retail Group	1997	35,9%	36,8%	4,5%	0,6%	41,3%	38,7%	4,2%	1,2%	30,8%	40,0%	4,1%	2,3%
Nu-World Holdings	2000	21,0%	22,6%	4,5%	0,3%	24,0%	21,7%	4,4%	0,8%	27,7%	21,5%	4,4%	0,3%
Profurn	2000	36,8%	70,2%	15,3%	-4,1%	51,9%	68,5%	14,8%	-5,1%	60,9%	65,9%	14,5%	-5,0%
Seardel Investment Corporation	2000	4,8%	18,8%	0,9%	-0,7%	-10,1%	18,7%	1,5%	0,7%	-1,9%	18,3%	2,1%	2,1%
Silveroak Industries	1995	44,1%	34,9%	2,6%	-5,6%	32,8%	34,5%	3,2%	-3,6%	25,2%	33,9%	3,3%	-1,5%
Smart Group Holdings	1997	29,0%	63,5%	7,0%	-7,0%	26,8%	60,2%	6,8%	-5,4%	24,2%	58,2%	6,7%	-4,1%
Spur Steak Ranches	1999	200,0%	5,9%	19,8%	7,5%	139,8%	7,3%	20,5%	9,3%	110,8%	8,6%	20,8%	10,0%
Trencor	2000	8,0%	9,5%	8,2%	1,6%	8,5%	9,9%	9,6%	5,4%	8,3%	10,1%	10,9%	9,0%

Table 6: Analysis per company

Company	Probable cause of inflexibility	Delisted, Rights-issue*, Business combination or Listed
Acrem Holdings	N-C WC above third quartile and PAT beneath first quartile	Labat Africa obtained a reverse listing into Acrem Holdings
AM Moolla Group	Had only been listed for three years N-C WC above third quartile	Delisted 2 March 2001
Amalgamated Appliance Holdings	Had only been listed for three years Growth and N-C WC above third quartile	Listed
Arthur Kaplan Jewellery Holdings	Growth and N-C WC above third quartile	Delisted 14 November 1997 Rights-issue 27 June 1996
Autoquip Group	PAT beneath first quartile	Delisted 8 July 2002 Rights-issue 25 February 2000
Bell Equipment	N-C WC above third quartile	Listed
Boymans	N-C WC above third quartile and PAT beneath first quartile	Delisted 23 April 1996
Carson Holdings	Growth and N-C WC above third quartile	Delisted 27 October 2000 Rights-issue 19 June 1997
Delswa	N-C WC above third quartile	Disposal of Delswa business approved on 13 December 1995 Name was changed to DJI Clothing and it became a cash shell
Home Choice Holdings	Growth and N-C WC above third quartile	Listed Rights-issue 31 March 1999 The delisting has been reported end of September 2002
JD Group	N-C WC above third quartile	Listed
Kopp Electronics	Growth above third quartile	Delisted 2 February 1996
Leisurenet	Growth and N-C WC above third quartile	Suspended 6 October 2000 Rights-issue 29 April 1999
Log-Tek		Rights-issue 13 June 1996 Reverse take-over by Conlog on 1 September 1997, when Log-Tek Holdings acquired Conlog
Metro Cash and Carry	Growth above third quartile and PAT beneath first quartile	Listed Rights-issue January 2002
MIH	Growth above third quartile	Listed Expected date of delisting is 24 December 2002
Morkels Retail Group	Growth and N-C WC above third quartile	Acquired by Profurn Rights-issue 22 August 1996
Nu-World Holdings	Growth above third quartile for 5-year average only Very close to the third quartile for the 4- and 3-year averages N-C WC very close to the third quartile	Listed Rights-issue 12 March 1998 Rights-issue 16 November 1995
Profurn	Growth and N-C WC above third quartile	Listed Rights-issue announced 11 February 2002 after liquidation had been an option
Seardel Investment Corporation	PAT is beneath the first quartile for the 3- and 4-year averages	Listed
Silveroak Industries	Growth and N-C WC above third quartile	Delisted 16 January 1996
Smart Group Holdings	N-C WC above third quartile	Delisted 14 November 1997
Spur Steak Ranches	Growth above third quartile	Delisted 29 November 1999
Trencor		Listed

* Rights-issue dates taken from separate JSE Monthly Bulletins for December; market information under the heading "rights issues for the year"

Some of the companies that have been identified by the cumulative index-difference as being cash flow inflexible are already delisted or had been part of a business combination. Other companies already had to look for outside sources of finance by doing a rights-issue and they were fortunate that it had been successful. However, if they did not change their strategy in some manner to improve the cash flow from operating activities, the poor cash flow position will repeat itself. And there is always the risk that the market will not be susceptive.

References

Business Day. 2002. 'CS Holdings: Preliminary financial results', September 3: 20.

Financial Statements of the companies listed on the JSE Securities Exchange.

Henderson J.W. & Maness T.S. 1989. *The financial analyst's deskbook – A cash flow approach to liquidity.* New York: Van Nostrand Reinhold.

Hull, J. 1990. 'Monitoring a company's operating cash flow using variance analysis', *Accounting Horizons*, **4**(3):50-57.

Loftus J.A. & Miller M.C. 2000. *Reporting on solvency and cash condition.* Boronia, Australia: Print Impressions.

Mathews C. 2002. 'Brokerage lowers JD Group's rating', *Business Day*. June 11. [online] http://www.businessday.co.za/bday/content/direct/1,3523,11 04956-6078-0,00 html

Mulford C.W. & Comiskey E.E. 1996. *Financial warnings*. New York: John Wiley & Sons, Inc.

Petros, N. 2002. 'Naspers sets target for new MIH structure', *Business Day*. September 21. [online] http://www.businessday.co.za/bday/content/direct/1,3523,93 2619-6078-0,00.html

Steyn B.W., Hamman W.D. & Smit E.vdM. 2002. 'The danger of high growth combined with a large non-cash working capital base – a descriptive analysis', *South African Journal of Business Management*, **33**(1):41-47.

Thomas S. 2002. 'Back to basics to see how a company is performing', *Financial Mai,*. August 23: 56.

Wallace R.S.O., Choudhury M.S.I. & Pendlebury M. 1997. 'Cash flow statements: An international comparison of regulatory positions', *The International Journal of Accountancy*. **32**(1):1-22.