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J Mullins

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**Are your cash flow tools recession-ready?**

**John Mullins**

Associate Professor of Management Practice

London Business School

Sussex Place, Regent's Park

London NW1 1SA

United Kingdom

Telephone +44 207 000 8626

## **Are your cash flow tools recession-ready?**

### **Abstract**

In good times like those most businesses have enjoyed for the past decade, managers and entrepreneurs typically watch their income statements with glee, as year-to-year performance gains fatten their bonus pots and dividend payouts. Most pay little rigorous attention to what's between the top line and the bottom line of the income statement, however. Few, in my experience, give more than a cursory nod to the balance sheet. When the next recession hits, these same people will find themselves having sailed too close to the wind, with cash running out and a dearth of tools to help them weather the storm and understand what has gone wrong. But it need not be so, for there are four simple tools to help any manager or entrepreneur answer these important questions:

- Where is cash going in my business, and where is it coming from?
- To what extent are my profit margins improving or declining, *and why*?
- To what extent am I effectively managing the cash flow relationships with my customers and my suppliers?
- What, if anything, can I do to better manage the cash that flows into and out of my business?

This article puts four such tools in one's managerial toolkit.

### **Keywords**

Cash flow tools, managing cash, preparing for recession, balance sheet, cash-days analysis

## IS A RECESSION NIGH?

Paul Samuelson, the Nobel Prize-winning economist, quipped decades ago that the markets had predicted “nine of the last five recessions.” Whether or not the rash of such predictions today, or the current market volatility, heralds a recession any time soon, one fact is clear. Another recession will arrive someday: perhaps sooner, perhaps later. Perhaps it’s already here.

For the past decade or so, in most of the world, most owners of mid-market companies and most managers in larger and more established firms have been watching their income statements with glee, as year-on-year improvements in profit performance have fueled their dividend payouts and bonus pots. In heady times like these, most give only a cursory glance – if at all – to their balance sheets.

When the next recession hits, however, many such businesses will find themselves having sailed too close to the wind, with insufficient cash in the bank to weather the storm and a dearth of tools to help them understand in clear and simple terms what has gone wrong and what to do about their cash-strapped predicament.

## BE PREPARED

In 1907, Robert Baden-Powell, an English soldier, devised the scouting motto: “Be Prepared”. In any business, preparing for a possibly impending recession means having a clear understanding of what’s happening with cash flow, as when cash flow turns negative or cash runs out, unpleasant things are likely to happen. Managers lose sleep over how they are going to make payroll on Friday. Banks call their loans, as covenants are breached. In far too many cases, sadly, when a recession hits, the business goes bust. With the right tools, however, and the right preparation, it need not be so.

In my work with hundreds of managers and entrepreneurs running fast-growing companies over nearly two decades, I find that their aforementioned focus on the bottom line of the income statement, accompanied by little more than a cursory glance at the rest of it and all-but-complete ignorance of the balance sheet, is all too common. In fact, it's the norm. What they need, I have found, to better manage their companies' performance and fund their growth when times are good, and to survive when times get tough, is a set of tools that can help them answer four crucial questions:

- Where is cash going in my business, and where is it coming from?
- To what extent are my profit margins improving or declining, *and why*?
- To what extent am I effectively managing the cash flow relationships with my customers and my suppliers?
- What, if anything, can I do to better manage the cash that flows into and out of my business?

Happily, there are four simple tools available to enable any business owner or CEO to quickly answer these questions at any moment – or for any period – in time. By “simple”, I mean three things:

- Easily understandable to a non-financially trained CEO or business owner – no arcane language, complicated mathematical formulas, or abstract ratios required
- Easy to communicate to others in the business who shoulder the real day-to-day responsibility for managing cash and delivering performance in good times and bad
- And doable with a calculator on a mobile phone or in a rudimentary spreadsheet.

## FOUR TOOLS FOR UNDERSTANDING CASH AND CASH FLOW

To be clear, the four tools aren't brand new. They aren't rocket science, either. They have all been around – in principle, at least – forever. Most accounting software packages could easily generate them. But many either don't, or they provide them in a sufficiently arcane fashion that simplicity is lost. Unfortunately, rarely do I find a mid-market company that uses more than one or two of the four tools – if any at all! – on a regular basis:

- Tool 1: Sources and uses of cash analysis
- Tool 2: Line-item margin analysis of the income statement
- Tool 3: Cash-days analysis of the balance sheet
- Tool 4: Hidden cash analysis

By “regular basis”, I mean not less than quarterly, and ideally monthly. After all, if you want your business to be responsive to changes in its performance, whether caused by internal or external factors, suitable warning signals must be seen, interpreted, and reacted to more frequently than not. Let's examine the four tools one at a time.

### TOOL 1: SOURCES AND USES OF CASH ANALYSIS

Tool 1 answers the first of the three questions posed earlier: *Where is cash going in my business, and where is it coming from?* Why is this question important? A refrain I often hear goes something like this: “If we only had more cash, my company could grow faster.” Finding more cash for growth is a central concern for just about any CEO. Determining where the company's cash has been going, and from whence it's been sourced, is the first step on the path to doing just that.

With Tool 1, this important question can be addressed for any period of time for which beginning and ending balance sheets are available: monthly, quarterly, yearly, or even longer. As we'll now see, the procedure is straightforward.

Let's consider the hypothetical Acme Widget Works, whose simplified financial statements are shown in Exhibit 1. In order to run Tool 1, an analysis of Acme's sources and uses of cash, first (Step 1), simply take any two balance sheets, place them side-by-side, and calculate (via subtraction) the changes in each account (i.e. calculate the change, whether positive or negative, on each row of the balance sheet). Here we'll run this analysis for Acme's 2020 and 2021 years, i.e., from the year-end balance sheet for 2019 to that for the end of 2020, and similarly from year-end 2020 to Acme's hypothetical 'What if?' performance through year-end 2021 (See Exhibit 2). For now, we'll set aside any discussion of Acme's 2021 year and focus on 2020.

Next (Step 2), take each of the change figures in Column G and post it to either the Sources column, or the Uses column (Columns H and I in Exhibit 2). If you are using a spreadsheet, as we are here, the plus or minus signs in the Changes column indicate the proper columns into which to post them: in the Assets portion of the balance sheet, the plusses are Sources, the minuses are Uses; and vice versa in the Liabilities and Equities portion of the balance sheet. But you can also simply rely on your good sense, and doing so will aid your understanding. When inventory goes up, for example, that ties up more cash, so it's a Use of cash. When accounts payable to your suppliers increase, your suppliers are letting you use their money until you pay them. Thus, that's a Source of cash. And so on.

The tricky figure to treat properly is the change in the cash account. To get it right, use the arithmetic sign in a spreadsheet as your guide: plus indicates a Source, minus a Use. The

results may seem counter-intuitive, but consider this. When the cash balance decreases from one balance sheet date to another, it means some cash has been taken from the company's bank account. Thus, such a change is a Source of cash. Wherever that cash went will show up as a Use. And conversely, of course, when the cash balance (i.e., the company's bank account) increases. Topping up one's bank account 'uses' cash that could have been 'used' or deployed elsewhere.

Having completed Steps 1, 2, and 3 for the 2020 year, your analysis is complete. It's time to interpret what it means. For Acme in 2020, the figures in the Uses column (Exhibit 2, Column I) show that the uses of cash were for inventory (\$39k) and accounts receivable (\$33k), for total Uses of \$72k. We can see in the income statement (See Exhibit 1) that sales grew nicely that year, up 20% to \$2.4 million. That means more inventory was required to support the additional volume, and more credit was granted to Acme's customers. Whether the changes in inventory and accounts receivable were 'appropriate' amounts, we don't yet know. But stay tuned, Tool 3 will tell us.

Where was the cash sourced in 2020 to fund these increases in inventory and accounts receivable? The Sources column (Exhibit 2, Column H) tells us that the largest portion of the funding came from earnings (\$40k), the difference between the year's profit after tax and the dividend that was paid out. Another \$15k came from Acme's suppliers, to whom Acme now owes more in accounts payable; the remaining \$17k was funded by nearly depleting the company's cash balance. Note that had Acme's owners wanted Acme to pay out (as dividends) its entire profit after tax of \$180k, it would not have had adequate cash to do so.

There's an important lesson here: growth eats cash, at least in many kinds of companies, including those that give their customers credit and those that have inventory to fund. Though



Acme's owners might have been pleased with their company's 2020 performance as measured by its income statement, they might well be concerned about its appetite for burning cash as it grows. Given such a concern, they might wish to apply Tools 2 and 3 to better understand what's driving the company's cash flow pattern.

## TOOL 2: LINE-BY-LINE MARGIN ANALYSIS OF THE INCOME STATEMENT

Tool 2 answers the second of the three questions posed earlier: *To what extent are my profit margins improving or declining, and why?* This question is important because, in a company having a growing top-line, it's not necessarily the case that profit will grow in commensurate fashion. When a relative change in profitability varies from a change in top-line revenue, that discrepancy serves as a warning signal that something may be awry, for better or worse. It's important to understand the nature of any such change and deal with it, whether advantageously or defensively, quickly.

For Acme, we know from a cursory glance at the income statements for 2019 and 2020 (See Exhibit 3, Columns C and D) that bottom-line profits are up a whopping 80% year-on-year (from \$100k to \$180k) on a sales increase of just 20% (from \$2 million to \$2.4 million). *Why* was it such a good year, profitability-wise?

Tool 2, sometimes called a line-by-line margin analysis of the income statement, enables us to understand how well expenses were managed *relative to* the level of sales achieved during any period of time – a month, a quarter, a year, whatever. If sales increase, as they did for Acme in 2020, it's likely that expenses will rise as well, in support of the greater sales volume. The key question that Tool 2 answers is whether the extent of such increases (or decreases, perhaps) is 'appropriate' or 'efficient' when viewed in light of the increase in sales.

To run a line-by-line margin analysis for each of Acme's operating years, we simply set the year's sales at 100%, and then calculate the percentage of sales that each line item on the income statement represents. Crucially, we want to know whether Acme was relatively more efficient, or less so, in managing its costs (cost of goods sold, operating expense, and so on) and the resulting gross margins and profit margins that were delivered. Such efficiency is only meaningful, however, when compared to something else. To what might we compare?

- Acme's history is one useful comparison. Are we getting better at managing, say, cost of goods sold, or worse? Are we achieving any economies of scale with regard to operating expense as we grow?
- Comparing Acme to others in its industry is another useful comparison. Are we more efficient than others in some expense categories? Less so in others?

Exhibit 3 provides a line-by-line item margin analysis of Acme's 2019 and 2020 (and prospective 2021, set aside for now) income statements, so that we can compare its 2020 performance with that of 2019. The Tool 2 procedure is straightforward, as was that for Tool 1. Sales for each year is set at 100%, as noted above, and the expense categories that follow are expressed as percentages (see Columns G and H) of the top-line sales figure.

What do we see? Cost of sales declined by 2.5 percentage points – good news! – resulting in a corresponding increase in gross profit. Apparently, Acme was able to buy better or smarter, perhaps due to the higher quantities it bought, in order to meet higher demand, or was able to increase its pricing, or some combination of the two. Operating expense held steady at 35% of sales. The results on the bottom line? A 2.5 percentage-point increase in profitability, from 5% of sales in 2019 to 7.5% in 2020.

How might Acme's owners interpret these results? Absent any information to provide an industry comparison, the increase in gross margin, especially when combined with rising sales, is salutary. And what about the flat percentage of operating expense? One might hope that some of the operating costs might be largely 'fixed', over at least some range of sales, thereby reducing the percentage of operating expense, even if only slightly. That did not happen here.

Thus Acme's sharp increase in profitability was driven by just two factors: the 20 percent increase in sales plus the 2.5 percentage-point increase in gross margin. If Acme believes sales are likely to continue to grow, its owners might elect to use some of its additional gross margin dollars to make certain that the company's operating infrastructure – people, fixed assets, and more – is likely to be able to support higher levels of sales.

On the other hand, if Acme's owners see a recession on the horizon, they might want to try to lock in the changes that improved the gross margin percentage, in order to buffer a possible future downturn in sales. If they are not able to do so, and the gross margin percentage reverts to its earlier 40%, amid plummeting sales and an insufficient cut in operating expense (See Exhibit 3, 2021 columns E and I), profitability can disappear in a heartbeat.

Tool 2 has enabled us to better understand Acme's key source of cash for 2020, its profit-driven increase in retained earnings, as we saw from Tool 1. We now know the increased profitability was driven by the increase in sales and an improved gross margin percentage. But our analysis does not yet address Acme's other Sources and Uses of cash that we also saw using Tool 1 – the change in its key working capital counts: accounts receivable, inventory, and accounts payable. To understand whether the changes that led to these Sources and Uses of cash were 'appropriate', in a commensurate sense, given Acme's growth in sales, we need to apply Tool 3.

### TOOL 3: CASH-DAYS ANALYSIS OF THE BALANCE SHEET

Tool 3 enables us to answer the third of the three questions I raised at the outset of this article: *To what extent am I effectively managing the cash flow relationships with my customers and my suppliers?* Why does this question matter? As we've seen in the Sources and Uses of cash analysis using Tool 1, when a business grows its topline sales, its key working capital accounts – for Acme, its inventory, accounts receivable, and accounts payable – are likely to grow, too. And conversely when sales decline. But if the changes in working capital are not effectively managed, they can starve a growing and profitable company of cash that it needs to pay its bills.

Let's examine how well Acme is managing its working capital accounts through the lens of Tool 3, a cash-days analysis of its balance sheet. Tool 3 brings together key figures from both the income statement and the balance sheet. In doing so, it enables us to report the key working capital accounts in terms of 'days', a notion that everyone in the company can understand. For Acme, there are three such figures:

- In how many *days*, on average, do our customers pay us?
- How many *days*' worth of inventory do we have on hand at any moment in time?
- In how many *days*, on average, are we paying our suppliers?
- And, crucially, how do the above figures compare with industry averages or with our past performance? Are we getting better at managing our working capital, or worse?

To run Tool 3, we first calculate two crucial pieces of information from Acme's income statement: the average Daily Rate of top-line sales it generates over a period of time (here, one year), and the average Daily Rate of cost of sales that accompanied those sales. If we're doing this for a year, we simply divide the year's total sales by 365, the number of days in a year. And

similarly, dividing the year's cost of sales by 365 to get the Daily Rate of cost of sales. The resulting figures are shown in Exhibit 4, Daily Rate, Columns G, H, and I. If for a quarter, we'd divide the quarter's sales and cost of sales figures by 91, the approximate number of days in a quarter. Let's set aside the figures for 2021 for now.

Once we have the Daily Rate figures, the Tool 3 procedure is straightforward. To know how fast our customers are paying us, we simply divide the year's accounts payable figure by the average Daily Rate of sales. For both 2019 and 2020, Acme is collecting its accounts receivable in a consistent 30 days (Exhibit 4, Cash-Days, Columns G and H).

Since the inventory balance always represents the *cost* we paid for the inventory (not the *selling price* of the inventory), we use the Daily Rate of cost of sales to determine how many days' worth of inventory we have on hand at a particular point in time for which a balance sheet is available. The resulting figures for Acme show us that the company holds, on average at year-end, some 80 days in inventory in 2019 and 2020 (Exhibit 4, Cash-Days, Columns G and H).

Similarly, since accounts payable represent the *cost* we pay for the goods we then sell, we use the cost of sales daily rate figure for accounts payable, too. The results tell us that Acme is being given credit by its suppliers in 30 days in 2019 and 2020 (Exhibit 4, Cash-Days, Columns G and H).

What does all this mean? Acme is managing its key working capital accounts in consistent fashion for both 2019 and 2020. In the absence of any industry data suggesting Acme should do better, we can conclude that the increases in all three working capital accounts, when compared to the increase in sales, are commensurate, as its cash-days have remained stable.

But what if an unexpected recession rears its ugly head? If the winds of economic change are blowing, let's imagine up front what might happen in 2021. Some customers, perhaps short

of cash, are likely to pay Acme more slowly than they have in the past, pushing Acme's Cash-Days of accounts receivable out to, say, 45 days. Acme's inventory may also balloon as its sales level declines, say, to 100 days, especially if a downturn is unforeseen. Acme, now worrying about a cash shortage itself, may start paying its own suppliers more slowly, stretching its Cash-Days of accounts payables to, say, 40 days. These figures are shown in Exhibit 4, Cash-Days, Column I. These are the drivers we used to construct the 'What-If' balance sheet for 2021, as previously shown in Exhibit 1, but not discussed there.

#### TOOL 4: FINDING HIDDEN CASH

The result of the combined effects of both the income statement changes brought on by a possible 2021 recession (Acme's top-line sales tumble from \$2.4 million to \$1.8 million) and the likely balance sheet changes we've discussed (lengthened cash-days for A/R, inventory and A/P) generate a \$36k cash shortfall in its balance sheet (Exhibit 4, Column E). A company not well-armed with tools to analyze what might happen in 2021 may well conclude that someone – a banker, an investor, or the owner herself – will have to step up with \$36k of cash to fill this troubling and perhaps unexpected hole.

Fortunately, however, armed with our new understanding of Cash-Days from Tool 3, we're able to run a few more simple calculations to find 'hidden cash' on Acme's own balance sheet. What if we can better manage the slippage in our accounts receivable, perhaps by no longer doing business with marginally solvent or slow-pay customers, or being more diligent in collecting from those who are paying slowly. If we could hold the slippage in the A/R cash days figure to 40 days, instead of 45, that would free up 5 days' worth of hidden cash, or  $5/45^{\text{th}}$  of the projected 2021 A/R balance, nearly \$25k. That's a good start toward filling the \$36k cash shortfall in our 2021 balance sheet!

If we can get on top of our inventory, and get it halfway back to our past 80 Cash-Days standard, i.e. to 90 cash-days, that would free up 10/100ths of the projected 2021 inventory balance, or nearly \$30k. We could also, with our suppliers' forbearance, try stretching our accounts payable to 45 days, generating another 5/40<sup>ths</sup> of the projected 2021 A/P figure, or another almost \$15k.

We could examine other Cash-Days scenarios as well. Taken together, though (about \$25k + \$30k + \$15k = nearly \$70k in all), these proposed Cash-Days changes can more than offset the projected 2021 cash hole and keep the company from running out of cash. (See Exhibit 5, in which the relevant portions of the 'before' and 'after' balance sheets are shown). Very simply, these hypothetical changes move their respective 'hidden cash' amounts from their respective working capital accounts to cash.

Similar sensitivity analyses, changing the percentage of sales figures on the income statement by a point or two each, can generate cash as well. For example, one additional percentage point of gross margin (from 40% to 41% in 2021) would generate an extra 1/40<sup>th</sup> of the projected gross margin (another \$18k).

#### MANAGING TOOLS 1, 2, 3 AND 4 IN THE REAL WORLD

It's easy, of course, to play "What if?" on a spreadsheet or with a pocket calculator. The hard part, when the next recession comes, is making the sought-after changes actually happen. Achieving modest improvements in Cash-Days and margins is never easy, especially in the face of a downturn, given the strain that recessions inevitably place on both customer and supplier relationships. Having worked through multiple economic cycles, here are some tips I've found useful in making such changes happen for real:

- Improving gross margin percentage

- I'll wager that, in the broad array of goods or services Acme sells, there are some items that are simply not very price-sensitive. Try raising prices on just these items alone.
- In a recession, suppliers are likely to be worried about falling demand and slow-pay customers. Ask for price concessions in return for agreeing to pay on time.
- Collecting A/R more quickly
  - Make sure your invoices are sent out promptly upon shipment or delivery of what you sell.
  - Print any paper invoices on colored paper. When the customer says they've lost your invoice (an all-too-common delaying tactic), you can say, "It's the green one!"
  - A few days before each invoice is due, call key customers and confirm that they have the invoice, that it's correct, and that they're going to pay it on time. The squeaky wheel is the one that will more likely get the grease!
  - Not all of your customers will be slow-pay. Identify the laggards by aging your A/R and pursue them, or stop doing business with them.
- Managing inventory more tightly
  - Consider foregoing quantity discounts to keep your inventory level down. Using Tools 2 and 3, you can measure the extent to which such a trade-off (less inventory to hold, but reduced gross margins) will be worthwhile.
  - Consider dropping some slow-moving items, or selling them on only a special-order basis.



- Identify stale, obsolete, or seasonal inventory that's not moving, and discount it to sell it and turn it into cash. Tools 2 and 3 can measure the likely effect of this trade-off as well.
- Paying your suppliers more slowly
  - Actually, I don't recommend doing this if you can make things work by better managing your other working capital accounts in the ways noted above. Why? In a recession, your suppliers will surely be happy that you have chosen to be the one that always pays on time, when many others don't. As we've seen, Acme has options for finding the hidden cash it needs. So will you. If your reputation is one of paying on time through thick and thin, you'll get better deliveries, better service, and better responsiveness to your needs when the recession comes to an end and times get better.

The good news is this. Tools 1, 2, 3, and 4 not only give us a way to think about the combination of changes that would keep your company – or Acme – solvent, when times get tough, but they also serve as KPIs that can be used to measure and report progress (quarterly or monthly) toward achieving such goals, whether in good times or bad. Simply measuring – and reporting! – your company's line-by-line margin and cash-days figures on a monthly or quarterly basis will help keep your team's minds focused on cash. As the saying goes, "What gets measured, gets done".

### THE TIME IS NOW

I hope I've convinced you that Tools 1, 2, 3, and 4 are useful additions to your managerial toolkit. Further, I suggest that the time to get these tools working for you is now, while you have

the time to play with and get comfortable applying them on a regular basis, before the next crisis lands on your doorstep with a thud.

Recessions can be an opportune time to pick up new customers (from your competitors which are less well-managed than your company) as well as new employees (who may see nothing but a stagnant few years ahead in their current roles). If your cash flow is well managed and your pockets are full, you'll be well positioned to do these things, as well as weather a coming economic storm, whenever it blows in.

The tools are simple – a handful of rudimentary spreadsheets (or some hastily scribbled cocktail napkins) like those shown here is all you need – and they are now yours. Whether or not to “Be Prepared”, as Lord Baden-Powell put it in 1907, is of course up to you!

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Exhibit 1: Acme Widget Works Financial Statements				
<b>Income Statement (000)</b>				
		<b>Actual</b>	<b>Actual</b>	<b>What-if?</b>
		<b>2019</b>	<b>2020</b>	<b>2021</b>
Sales		\$ 2,000	\$ 2,400	\$ 1,800
Cost of sales		1,200	1,380	1,080
Gross margin		800	1,020	720
Operating expense		700	840	770
Net profit after tax		100	180	(50)
<b>Balance Sheet (000)</b>				
		<b>EOY 2019</b>	<b>EOY 2020</b>	<b>EOY 2021</b>
Cash		\$ 20	\$ 3	\$ (36)
Accounts receivable		165	198	222
Inventory		263	302	296
Total Current Assets		448	503	482
Plant & equipment		25	25	30
<b>Total Assets</b>		<b>473</b>	<b>528</b>	<b>512</b>
Accounts payable		99	114	118
Revolving loan payable		50	50	50
Total Current Liabilities		149	164	168
Owners' Equity				
Contributed capital		100	100	130
Retained earnings start of year		204	224	264
Current year profit after tax		100	180	(50)
Dividend paid out		(80)	(140)	0
Retained earnings end of year		224	264	214
Total Owners' Equity		324	364	344
<b>Total Liabilities and Equities</b>		<b>473</b>	<b>528</b>	<b>512</b>

**Exhibit 2: Tool 1 - Sources and Uses of Cash**

A	B	C	D	E	F	G	H	I	J	K	L	M
Balance Sheet (000)		EOY 2019	EOY 2020	EOY 2021	2020 Operating Year			What if? 2021 Operating Year				
					Changes	Sources	Uses	Changes	Sources	Uses		
Cash		\$ 20	\$ 3	\$ (36)	\$ 17	17		\$ 39	39			
Accounts receivable		165	198	222	\$ (33)		33	\$ (24)		24		
Inventory		263	302	296	\$ (39)		39	\$ 6	6			
Total Current Assets		448	503	482								
Plant & equipment		25	25	30				\$ (5)		5		
<b>Total Assets</b>		<b>473</b>	<b>528</b>	<b>512</b>								
Accounts payable		99	114	118	\$ (15)	15		\$ (4)	4			
Revolving loan payable		50	50	50								
Total Current Liabilities		149	164	168								
Owners' Equity												
Contributed capital		100	100	130				\$ (30)	30			
Retained earnings start of year		204	224	264								
Current year profit after tax		100	180	(50)								
Dividend paid out		(80)	(140)	0								
Retained earnings end of year		224	264	214	\$ (40)	40		\$ 50		50		
Total Owners' Equity		324	364	344								
<b>Total Liabilities and Equities</b>		<b>473</b>	<b>528</b>	<b>512</b>		<b>\$ 72</b>	<b>\$ 72</b>		<b>\$ 79</b>	<b>\$ 79</b>		

**Exhibit 3: Tool 2 - Line-by-Line Margin Analysis**

A	B	C	D	E	F	G	H	I
Income Statement (000)		Actual	Actual	What-if?		% of Sales	% of Sales	% of Sales
		2019	2020	2021		2019	2020	2021
Sales		\$ 2,000	\$ 2,400	\$ 1,800		100.0%	100.0%	100.0%
Cost of sales		1,200	1,380	1,080		60.0%	57.5%	60.0%
Gross margin		800	1,020	720		40.0%	42.5%	40.0%
Operating expense		700	840	770		35.0%	35.0%	42.8%
Net profit after tax		100	180	(50)		5.0%	7.5%	-2.8%

Exhibit 4: Tool 3 - Cash-Days Analysis								
A	B	C	D	E	F	G	H	I
<b>Income Statement (000)</b>								
		<b>Actual</b>	<b>Actual</b>	<b>What-if?</b>		<b>Daily Rate</b>	<b>Daily Rate</b>	<b>Daily Rate</b>
		<b>2019</b>	<b>2020</b>	<b>2021</b>		<b>2019</b>	<b>2020</b>	<b>2021</b>
Sales		\$ 2,000	\$ 2,400	\$ 1,800		5,479	6,575	4,932
Cost of sales		1,200	1,380	1,080		3,288	3,781	2,959
Gross margin		800	1,020	720				
Operating expense		700	840	770				
Net profit after tax		100	180	(50)				
<b>Balance Sheet (000)</b>						<b>Cash-Days</b>	<b>Cash-Days</b>	<b>Cash-Days</b>
		<b>EOY 2019</b>	<b>EOY 2020</b>	<b>EOY 2021</b>		<b>2019</b>	<b>2020</b>	<b>2021</b>
Cash		\$ 20	\$ 3	\$(36)				
Accounts receivable		165	198	222		30	30	45
Inventory		263	302	296		80	80	100
Total Current Assets		448	503	482				
Plant & equipment		25	25	30				
<b>Total Assets</b>		<b>473</b>	<b>528</b>	<b>512</b>				
Accounts payable		99	114	118		30	30	40
Revolving loan payable		50	50	50				
Total Current Liabilities		149	164	168				
Owners' Equity								
Contributed capital		100	100	130				
Retained earnings start of year		204	224	264				
Current year profit after tax		100	180	(50)				
Dividend paid out		(80)	(140)	0				
Retained earnings end of year		224	264	214				
Total Owners' Equity		324	364	344				
<b>Total Equities</b>		<b>473</b>	<b>528</b>	<b>512</b>				

Exhibit 5: Tool 4 - Hidden Cash Analysis				
A	B	C	D	E
Before looking for hidden cash				
Balance Sheet (000)			Cash-Days	
		EOY 2021	2021	
Cash		\$ (36)		
Accounts receivable		222	45	
Inventory		296	100	
Total Current Assets		482		
Plant & equipment		30		
Total Assets		512		
Accounts payable		118	40	
Revolving loan payable		50		
Total Current Liabilities		168		
After finding potential hidden cash				
Balance Sheet (000)			Cash-Days	
		EOY 2021	2021	
Cash		\$ 32		
Accounts receivable		197	40	
Inventory		266	90	
Total Current Assets		496		
Plant & equipment		30		
Total Assets		526		
Accounts payable		133	45	
Revolving loan payable		50		
Total Current Liabilities		183		