

A Bailout for the Rest of Us? Don't Wait – Create Your Own Bailout

In this time of recession, when the auto manufacturers and banks can go to the government to get “bailed out”, where can your company go to generate cash, and create capital for R&D, training, to buy materials, and or get you through a short-term cash flow problem? Do not look for the government to be that bank of last resort. For most medium and small businesses there is not a lobbyist in Washington DC or the state capitals that can be heard or has the political muscle to get a congressional representative or senator's ear long enough to make a difference. *Make your own bailout.*

As businesspersons in our medium to small companies, we should be able to go to the banks and other financial institutions that we have worked with for years to get the short-term capital assistance that we need. However, with all of the layoffs, bad mortgage debt, and questionable assets on the books, banks are either scrambling to cover their own cash-flow issues, or have turned so conservative that they are holding on to cash very tightly.

A private-equity group might be able to provide some long-term assistance with cash flow. The problem here is that to get capital from these types of companies means selling a piece of your company at rock-bottom prices.

If none of these is an option to provide capital for your business today, where can you go to get cash? Look no farther than your own balance sheet. I am not talking about selling your equipment and other assets. FlowVision, a Management consulting group, has seen hundreds of companies get “bailed out” by looking to your inventory and the state of your receivables. The technique is called Lean Flow and with a “Rapid Lean Flow” implementation, your bailout is only months away.

Traditional Business Strategy in Poor Economic Times

As an example, the typical manufacturing company turns inventory 4 times per year. That equates to 3 months of inventory at cost. A company with sales revenues of \$100 million, and 33% gross margins, has a cost of goods sold (COGS) of \$67 million. At 50 operating weeks per year, this company generates \$1.34 million of product per week. If there is ¼ of the year's COGS in inventory, that is \$16.75 million in inventory. If we could reduce the inventory by 50%, we would generate \$8.375 million in cash. At \$1.34 million of COGS, that cash generated equates to over 6 weeks of production-operations capital. Now, how big a short-term loan do you need? More than 6 weeks at the full COGS?

How about a \$10M bailout for your \$100M business?

- \$8.0M in Cash from Inventories
- \$1.0M in cash from receivables
- Tens or Hundreds of thousands to profits from improved yields
- \$1.8 M in annual carrying-cost savings

So hearing this discussion, most companies would look to eliminate all finished goods inventory (FGI) by simply not producing anything to stock, buying minimal or no raw materials, or continuing to buy with greatly extended payment terms. These are all of the typical actions that a company takes when they want to reduce inventory. The problem with these methods is the unintended consequences.

When we slash FGI, the consequence is that customer service has limited product available to sell to the customer. Most traditional manufacturing companies cannot respond to an order quickly enough to deliver within the customers' expectations, so if the product is not in stock, they will purchase the product from another supplier. Losing potential revenues in a down-turned market - that is a sin! Either we must have the FGI to supply our customers, or find a way to make product on demand.

If we continue to hold FGI, how do we make sure that we have the right stuff in the right quantities to meet the future sales? We use that magic crystal ball that everyone uses - a forecast. What is a forecast really? An educated guess. In the past, some forecast accuracy I have seen makes me question the "educated" part of it, or say, Get a new crystal ball, or Ouija board, or whatever you are using to figure out what to make.

If we determine that the forecast information is the best available to us, and we do not want to reduce FGI because of the risk of losing sales, we concentrate on raw/purchased materials. First, for most companies, if we eliminate the possibility of reducing FGI, we preclude reducing the largest part of the inventory. Therefore, we limit our total potential inventory reduction. The remaining large pool of inventory that most companies go after during slow periods is raw/purchased materials. This material is all the stuff we need to make product: metal, plastic, electronics, motors, etc. It is all of the material we buy from suppliers, and can make up 45-75% of total COGS. Using an MRP or computer system, we end up typically holding onto 1-½ to 2 months of these materials. Amazingly enough, even with 6-9 weeks of material, we still do not have enough of what we need, plenty of the wrong stuff, too much slow-moving, and too many shortages.

How can that possibly be? Because we use the crystal-ball theory to guess what to make in the future, and then let MRP determine what materials to buy to support our guess. The problem is that we need to be guessing, into the future, what to buy from suppliers based upon our longest supplier lead time. That can be 4-18 weeks or more into the future. In this kind of economy - really any kind of economy - how can you guess 4-18 weeks into the future, to an accuracy level of 80% or better, exactly what products, in exactly what mix and volume, your customers are going to purchase in any given week? If you are that good at forecasting the

What are the ways to create capital in your own company?

- Put FGI on a pull vs. a push and size the inventory statistically to account for variations in mix and volume.
- Change the physical layout of the factory to get a flow of products, which results in reduced lead times (60%) and reduced work-in-process (WIP) inventory (60%).
- Reduce FGI (50%) based upon reduced lead time.
- Statistically size raw/purchased inventory and create a pull kanban system, reducing raw inventory by 35%.
- With improved on-time delivery, quality, reduced costs and lead times, customers will be more willing

future, get out of business management and into speculating what to buy and sell in the stock market. Nobody really does it that well.

So how do we cover our mistakes in the forecast? We add inventory to our best guesses of what to buy from our suppliers. We call it safety stock. This just makes the inventory larger. And in the past, the more we have been caught without the right material, the more safety stock/inventory we carry.

If a company needs to generate cash and attempts to slash raw/purchased inventory without making fundamental changes in how it operates the business, it will create even more shortages, causing missed schedules and lost revenues. Another typical reaction is to buy the materials, commit to paying in 30 days from receipt, and then just stretch the payable cycle out to 60-120 days. This is not only a bad business practice, the unintended consequences will be a straining of the company-supplier relationship, lesser priority given to your material because of the failure to pay, possibly even a credit hold making the acquisition of materials even more difficult.

How to Create Your Own Bailout

So what can a company do to get the cash required to sustain the business through a downturn without creating more problems than already exist? The answer is to adopt Lean Flow principles. Lean Flow is a focus on the elimination of waste while dramatically reducing your production lead time and improving on-time delivery performance. Where is the cash? The creation of cash is an *intended* consequence of the effort around reducing your production lead time. Inventory goes down as lead time goes down. The material-procurement process moves from a forecast-driven guess to actual-consumption-driven.

How? We'll show you the methodology. In the above example we used a manufacturing company. Keep in mind, the same techniques work for retailers, distribution centers, the service industry - any business carrying significant inventories of products, materials, or competing in a market in which customer lead time to complete a task/service drives the ability to make a sale.

To convert to a Lean-Flow-driven business, a manufacturing company begins by first converting its factory floor to Lean Flow. By changing the way products move through the factory, by creating an assembly-line-type flow from the first process to the last, and by having tight control of what material is in the factory, the manufacturing lead time can be significantly reduced.

Here is a simple example: Two people work in a factory. One assembles a product in one area of the factory, the other boxes the product in another area. Current business practices are to have a large pile of product between the assembly and boxing people – “just in case” inventory. Each person takes about a minute to do his/her work. If the pile of products between the two people is 20 pieces, then there is about 20 minutes of work in the pile, and about 22 minutes of lead time before the boxer boxes a specific unit the assembler assembled. The boxing person does not really care what the assembler is doing because there is plenty of work for him/her, and the two do not even need to be in the same area to communicate with or help each other.

If we change the physical arrangement using Lean Flow principles so that the two are located next to each other, and get rid of the pile, with only one product sitting between the two people, then the 20 minutes of lead time has been reduced by 19 minutes, or by at least 85%. In addition, there are now 19 fewer products in inventory, so the intended consequence of the reduced manufacturing lead time is the reduction of WIP inventory by 85%.

With reduced lead time comes reduced work-in-process inventory, or WIP. Most companies overlook this significant inventory investment when trying to generate cash. Why? Because it is more difficult to change how we operate the daily processes of the business than it is just to edict what to do with FGI or the materials we purchase. If our company has \$16.75 million in total inventory, and 25% of it is WIP, then the WIP inventory value is \$4.18 million. If this inventory is reduced by a very conservative 60%, then the cash generated will be \$2.5 million. That is enough to keep this business running 2 weeks or more.

Let's not stop there. With manufacturing lead time reduced by 60% the company needs less FGI to cover the lead time. How much less? Well, 60% would be a good starting point, but if the new lead time was less than the customer lead time, then there would be a strong argument to build directly to demand, entirely eliminating both FGI and the use of a forecast to tell us what to produce. For a company whose FGI makes up 40% of the total of \$16.75 million, or \$6.7 million, that means a lot of cash for the business.

Assuming that customers want the product shipped sooner than our new short lead time to produce, we would use the 60% reduction in FGI. But then we are still stuck with using the forecast to produce FGI. Not so, however, if we adopt a new way of signaling the factory to make product. We will use the inventory levels in FGI, and actual customer consumption of product, to signal more from our factory. If no one buys product A, we don't need to – and won't - make that product. If someone buys product B, then we make that product. To ensure a target customer service level, we will use a statistical methodology to determine the optimum level of FGI, taking into account the variations in demand we have seen in the past. This might increase our FGI slightly so that we initially are able to reduce FGI by only 50%. **SO REDUCE FGI BY ONLY 50%! Most companies would kill to do that.** This reduces FGI and generates \$3.35 million in cash - enough to run the business for another 2-½ weeks.

This consumption-based methodology for FGI applies also to raw/purchased materials. These materials are held in inventory and as the material is consumed, it signals the need for additional material. The proper inventory levels of raw/purchased parts will again be determined statistically to ensure an adequate supply so that the business does not run out or have shortages, keeping inventory at an optimum level. With the raw/purchased inventory making up 35% of the total inventory, or \$5.9 million, this level is approximately 2 months of material to make products. By using the Lean Flow consumption methodology, the raw/purchased inventory is reduced by a very conservative 40%, creating \$2.36 million in cash.

The total reduction of inventory from WIP, FGI, and raw/purchased - and therefore the intended generation of cash - is \$8.2 million, or a 49% reduction. In addition, with inventory carrying costs at 20%, there will be an annual savings of \$1.8 million, every year. Add tens or hundreds of thousands of dollars from improved yield and productivity that goes right to the

bottom line and gross margins can improve by 2-4%. This will sustain the business through many more weeks than the originally-stated 6 weeks.

Using Receivables to Generate More Cash

Where else can we find cash in a business? There is usually about 45 days of sales revenue in receivables. This tends to extend out to 60-90 days on average during slower economic times. At 45 days (usually calendar days), there is 1-½ months of revenue waiting to be paid to the company, or approximately \$12.5 million.

Why are companies not paying on-time (in 30 days)? Because that is their way of improving their cash flow, or because they cannot pay, and because any issue with the order, shipment or product is an excuse not to pay. What kinds of excuses? Long lead time, missed promise dates, quality defects, etc. All of these excuses can be positively affected by Lean Flow tools. If the use of these tools can assist in reducing the receivables by just 3.5 days, cash flow improves by \$1 million. This improvement, plus the inventory reduced, creates \$9.2 million. For a \$100 million business, we are now talking about something better than a government bailout: no interest expense, and no one pressuring the business to return the cash.

To achieve these phenomenal results requires a commitment to change to a new business philosophy, to be willing to look first internally at what can be done. Will there be costs associated with these changes? Absolutely, but many times this can be funded right out of the inventory savings.

In summary, the funds in the above example will come from

- Putting FGI on a pull vs. a push, and sizing the inventory statistically to account for variations in mix and volume.
- Changing the physical layout of the factory to get a flow of products, which results in reduced production lead times (60%) and reduced WIP inventory (60%).
- Reducing FGI (50%) based upon reduced production lead time.
- Statistically sizing raw/purchased inventory and creating a pull kanban system, reducing inventory by 35%.
- Improving on-time delivery, quality, reduced costs and lead times, so customers will be more willing to pay on-time, reducing the 45-60-day receivables by ½ a week.

All of these steps are just a brief summary of the tasks required to implement Lean Flow, but they show the ability to create cash from your own business operations.

Are you ready to take advantage of your own bailout?

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