



## **A Controller's Challenge**

**By Timothy L. Riedinger, CPA**

Can Jim Woodruff find another million profit to bolster the sales of the consolidated company?

### ***Abstract***

*Controller Jim Woodruff is under pressure to accelerate profits at Advanced Parts Manufacturing. Examine the facts presented for this case and determine the course of action you believe Jim Woodruff should follow.*

### **Background**

“Would you come over to Mr. Patterson’s office right away?” Jim Woodruff was a bit puzzled about the summons from the president’s office; no meeting was scheduled and Bill Patterson’s style was not an impromptu one. Organizer and calculator in hand, Jim left for the meeting wondering what the subject might be and how he might mentally prepare for whatever discussion was about to take place.

Jim was the recently appointed controller of Advanced Parts Manufacturing Company, a division of a *Fortune* 500 company. He had started his career as an auditor in public accounting before joining the parent company’s corporate headquarters accounting staff. After a few years in headquarters, he was promoted to Advanced to replace its retiring controller. He came with a strong technical background gained through his experience in auditing and accounting. After about a year, he had become a valued member of the Advanced management team. He had played an important role in the financial decisions associated with a recent capacity expansion and had made major improvements to the management reporting and planning systems. He was working on reducing the division’s investment in inventory through consignment arrangements with suppliers.

### **The Problem**

Bill Patterson greeted Jim as he entered his office. “Jim, we have a challenge that I hope you can help us with. We need another million in profit this year because of low sales by the consolidated company. When you reviewed our division’s 11-month actual results last week, we were a little better than our forecast. Is there any more we can do?” Jim paused for a moment to think.

Advanced Manufacturing was a parts supplier to the automotive sector and was enjoying slow but steady growth under Patterson, who had been aggressive in pursuing increased volume through new business. Its business provided diversification for the parent company, which was concentrated in a lower growth, more mature industry. Profit



contribution from Advanced was favorably disproportionate to its sales volume within the parent.

Thinking aloud, Jim answered, "Well, with about a month left in the year, there aren't many options. Our average sales margin is 20%, so that's over \$7 million in sales, including the income tax effect. Can we accelerate any shipments, maybe pull some sales ahead into this month?" Patterson said he thought this was a possibility. He asked Jim to investigate and report back with some other ideas by the end of the week. "OK, Bill, I'll look into it."

A number of ideas ran through Jim's mind, some of them perhaps reasonable, others a bit compromising. He decided to start with the shipment forecast and called the production manager, John Burns. "John, if I told you we needed to book as many sales as possible this month, could you increase shipments?" John's answer was encouraging. "Yes, Jim, we're scheduled to start a huge order for Imperial this week, but it won't be ready to ship until early next month. We could work overtime on the weekends to finish this month, but are you sure we want to do that? The overtime would cost about \$100,000. That'll kill my budget and it really isn't necessary." Jim agreed. "I know--just a question at this point. Thanks for the info; I'll get back to you." Calls to production scheduling and sales revealed that the Imperial order was for \$2 million with a gross margin of \$500,000. The promised delivery date was for the fifteenth of January and early shipment would be acceptable to the customer.

Jim's inner tension increased. "Why would I endorse spending real money to move profits a few weeks ahead?" he wondered. "This seems a little like tax planning, shifting income from one year to another." Jim realized that other tactics would require some creativity and he began to brainstorm. He made a quick review of the division's income statement and his financial performance reports for previous months, including his comments on profit and cash flow results. He noted some potential opportunity with accounting issues and that the division was experiencing an increase in inventories for the year. Under the last-in, first-out method, this increase would be added at current cost to the lower, historical value from prior years. He also noted the large expense recorded for some prototype manufacturing equipment, which had not been proven fully viable for production use. He was reminded of the recently installed capacity expansion that had not yet been capitalized but was starting up in the current month.

Jim also reviewed some recommendations he had made to management and was planning to follow up on this month; both related to inventory management. The spare parts inventory included some older parts that hadn't been used or replenished for several years. Based on this history, he had recommended that they be disposed of and written off the books before the end of the year. Not only would this free up some storage space and simplify the inventory records, it would reduce personal property taxes on the items. He had also recommended expensing an inventory of small parts used for routine maintenance that was immaterial in total value. After several more telephone calls and some analysis of these alternatives, Jim went to see Bill Patterson. He was feeling more unsettled about the project.



Much of Jim's past success had come from his ability to deliver results and respond to management needs. He was torn between his desire to make good on this assignment and his reservations about compromising accounting discipline, although nothing he was about to propose was inappropriate per se. He was also thinking about the profit-sharing effect, questioning his own objectivity in helping to engineer a profit increase that would result in a benefit for him.

### **The Choices**

The meeting with Patterson began. "Well, Bill, I have some ideas, but I don't think they represent good business decisions. If the plant works overtime and we ship the big Imperial order by year-end, the sales increase will add about half a million in margin. That'll cost \$100,000 in overtime premium. That's a pretty high price tag."

"What else is there?" Patterson asked.

"As you know, Bill, we use the last in, first out method to value inventories."

"Yes, that's LIFO, right?" Patterson said. "But how does that help?"

Jim provided a brief accounting lesson. "We can create a profit effect if we can reduce the inventories to below last year-end levels. The trend is generally toward increasing raw material and labor costs. Under LIFO we record higher costs of sales for these increases and that reduces taxable income and therefore, cash flow--the real purpose of the method. If we can avoid the inventory increase for the year, and instead have a reduction, we can take a credit adjustment to cost of sales and increase our profits."

"That sounds legitimate," Patterson said. "We'll get a reduction if we ship the Imperial order before year-end, but is that enough?"

"Not according to our estimates," Jim answered, "but our raw materials are in the LIFO pool. If we can delay purchases of raw materials to next month, we can reduce the overall pool and get the reduction we want. I have to warn you, though, that we can only estimate the impact, because final results will be based on total actual inventory mix on December 31. Much can go wrong with the timing of raw material receipts, too, and this could cause problems. You asked if it was legitimate--well, inventories go up and down all the time; this would just be a temporary liquidation. If the method weren't generally accepted, we wouldn't be using it in the first place. In my opinion, though, it's not good business to interrupt the flow of materials into our warehouse and it rather defeats the tax purpose behind the method. Also, under accounting theory, it creates an artificial mismatch of costs with sales. Realistically, we can't reduce our year-end materials inventory enough to reach the amount you've asked for, even with the increased sales."

"So what other ideas do you have?" Patterson asked. It seemed to Jim that the president was becoming less interested in details and more interested in results.



‘You know the System A that is still under development? All costs for that line have been expensed due to the experimental status of the project. We have begun to run assemblies on it, but nothing we can put in the warehouse or ship to customers. We could capitalize the cost and take half a million into profit. I really don’t recommend this, though, because the equipment is still new and unproved technology. Accounting principles require the expensing of such costs as development expense, but if it proves out next year, we’d capitalize it then anyway. The risk is having to write it off next year if it doesn’t pan out.’

Bill challenged Jim’s comments. “I don’t always get those differences between expense and capital. Is it really that black or white? How do you determine the status of such equipment?”

“There’s been no valid production from the system up to now, but it’s getting close, according to John Burns and the engineers,” Jim answered. “As of this year-end, it’s still experimental. In the end, it’s really a matter of management judgment. Management has responsibility for the integrity of financial statements and if you’re willing to commit to the production viability of the equipment, then.... Remember, we may have to justify our position to the auditors.”

“I know, Jim, but that’s something I expect you to handle,” Patterson retorted. “What about the plant expansion? Has our depreciation expense gone up as a result of that?” Jim explained that the plant expansion was scheduled for capitalization this month, as it had just been placed in service; monthly depreciation would be just over \$50,000. “We can delay that a month, can’t we Jim? We’ll need a cushion in case your inventory adjustments fall short.”

By this point, Jim had decided not to raise the inventory issues; the climate was not right. Patterson summarized the discussion. “Running a business means having to balance out the ups and downs on the bottom line. We can get a sizable chunk of it from the Imperial order. The rest is mostly accounting issues. The target is a million--see if you can get it.”

### **The Dilemma**

Jim left for his office not too confident about his next steps. He needed some time to think before taking any action. He was wondering, “How could I have handled this differently? Are all of the ideas acceptable? Are any unacceptable? What do I do next?”

### ***Comments on “A Controller’s Challenge”***

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*“The use of LIFO allows management to influence the company’s income through the acceleration of, or delay in, acquiring inventory, thereby reducing the quality of its earnings.”*

First, Jim Woodruff, Advanced Parts Manufacturing Company’s controller, should analyze the individual suggestions for shifting revenues/net income from the coming year into the current year’s income. In making his analysis, Jim, of course, should determine what’s acceptable and what’s not according to generally accepted accounting principles.

#### *Increase Shipments to Imperial*

Advanced Parts Manufacturing can speed up the shipment of the \$2 million order to Imperial and under GAAP revenues would be increased by \$2 million and gross margin would go up by \$500,000. However, from a business prospective that would be a costly decision, since incremental overtime premium will run about \$100,000 and the \$400,000 increase in income from operations is before tax.

#### *LIFO Inventory Reduction*

If Advanced Parts Manufacturing decides to increase its income by delaying purchases to dip into last-in, first-out inventory, Jim should consider a number of consequences. The company’s income will be higher (because cost of goods sold will include older and lower costs), but there is no economic substance to the higher income and the company will have to pay additional income taxes (since there will be higher taxable income reported under the LIFO conformity rule). The LIFO liquidation profits will be treated as income under GAAP. However, according to the Securities and Exchange Commission staff, in a case like this, Advanced Parts Manufacturing will have to disclose (effect on the income statement and earnings per share) the amount of LIFO liquidation profit so that its financial statements users may obtain an accurate understanding of the income generated by the company. Although this step is acceptable under GAAP, management should make decisions about inventory levels on the basis of economic and operational factors. The use of LIFO, however, allows management to influence the company’s income through the acceleration of, or delay in, acquiring inventory, thereby reducing the quality of its earnings.

#### *Depreciation on Plant Expansion*

Unless Advanced has a contrary policy, it should not postpone the recognition of the monthly depreciation of \$50,000 on its plant expansion. Unless otherwise stipulated in a policy or consistent practice, depreciation is normally computed on the basis of the nearest full month.

#### *Other Options*

Others items under consideration violate GAAP. For example, if Jim delays the write-down of spare parts inventory until the next year, he has committed a GAAP violation--treating an item as an asset when it is not. Likewise, Jim should not consent to a scheme to treat the experimental system as an asset when GAAP requires that it be expensed (unless the experimental assets--for example, machinery, equipment, facilities, etc.--have alternative future uses in other research and development activities or otherwise).

*A Commitment to Accuracy*

Advanced Parts Manufacturing has a major problem pertaining to the “tone at the top.” Management should, and must, insist on accuracy in financial reporting. This entails an unrelenting insistence that numbers not be massaged. A proper tone demands a strict commitment to truthfulness as the foremost company objective. Jim must pledge allegiance to truth and transparency in his division’s financial reporting. He perhaps needs to be reminded that financial manipulation starts out small and in those hazy areas where people think they are still being somewhat honest. Once the culture is seeded with contrived revenue enhancement and deferred recognition of real expenses, that culture is tainted and fraud blossoms. The costs arising out of the discovery of fraud are extraordinary--an SEC investigation, class action suits and perhaps delisting of the company’s securities. In addition, consequences include possible criminal investigation. Jim should not focus on his bonus and other short-run benefits when faced with the dire consequences of manipulated financial statements.

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*“If the earnings management is undertaken to avoid defaulting on debt covenants or falling short of analyst forecasts it may be in the shareholders’ best interests to accelerate the sales.”*

This case explores issues in earnings management from many different perspectives. It can be used to compare earnings management both within and outside generally accepted accounting principles. The case also highlights the distinction between managing earnings by exercising discretion over operations rather than over accounting measurement. Finally, the case provides a scenario in which to consider whether various forms of earnings management are in the best interests of the companies' owners, and whether the earnings management strategies are observable by the shareholders. It is instructive to enumerate the number and relative magnitude of the changes in



management judgments and estimates that would be necessary to generate an additional \$1 million in profits, a fairly trivial amount for a *Fortune* 500 business, such as the parent company in this case.

Advanced Parts Manufacturing Company's normal average sales margin is 20%. If the Imperial order, with a sales price of \$2 million and a gross margin of \$500,000, is completed in the normal course of business it will lead to recognition of sales margin of 25% in January of the next fiscal year. If it is completed this fiscal year by incurring overtime premium charges of \$100,000, it will lead to recognition of sales margin equal to the average sales margin (\$400,000 in margin relative to \$2 million in sales). Although normally investors would prefer that the company not incur the extra \$100,000 in overtime charges, if the earnings management is undertaken to avoid defaulting on debt covenants or falling short of analyst forecasts it may be in the shareholders' best interests to accelerate the sales.

Other factors Patterson and Woodruff should consider include:

1. Whether there are alternate uses for the capacity that will be freed up in early January.
2. How much disruption in the planned capacity expansion will occur as the result of moving production up by two weeks.
3. The overall tax effects of recognizing the \$2 million in sales this year.
4. The effects on the labor force of requiring overtime work at the end of the year.

The several changes in inventory procedures proposed in the case as ways to accomplish higher reported earnings this year should be evaluated in combination with Woodruff's explicit program to reduce the division's investment in inventory through consignment arrangements with suppliers. Depending on whether raw materials suppliers are part of this initiative, it may not be imprudent to reduce inventories of raw materials at year-end. The recognition of extra profits from inventory holding gains is a one-time-only event and will have to be recognized at some point in the near future if the controller is successful in reducing the division's investment in inventories. If the inventory holding gains will be recognized this year or next, and would be especially helpful in meeting earnings targets this year, it may not be imprudent or contrary to the shareholders' interests to let the raw materials inventories fall before fiscal year end. Other factors Patterson and Woodruff should consider in addition to the planned reduction in inventory investment include supply and demand conditions in the raw materials market, opportunities for volume discounts to replace the inventory run down, and the likelihood of production interruptions if the materials inventory cannot be brought quickly back to the optimal level after the first of the year.

The case provides a context for exploring several more accounting measurement issues involving management's judgments and estimates, including when:

1. A research and development project has reached technological feasibility (governing whether costs must be expensed or can be capitalized and depreciated slowly over time).
2. Depreciation charges start for self-constructed assets.



3. A charge should be taken to write off obsolete or damaged inventory.

Each of these issues also poses a context in which to consider the materiality of a collection of mutually reinforcing changes in judgments and estimates, each of which is probably immaterial on its own.

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*“When company management starts to trade long-term economic considerations for near-term revenue it is difficult to reverse the trend.”*

The controller for Advanced Parts Manufacturing came up with a variety of ideas that have financial and operational implications for the company.

***1. Accelerate the production and shipment of a large order to Imperial.*** Apparently Imperial is a valued customer. Accelerating the order would entail overtime that would have an incremental cost of approximately \$100,000 and would require the sales team to negotiate the early shipment with the customer.

The broader question deals with the rhythm of the manufacturing operation. Questions that require deep consideration but were left unasked include:

- What impact would acceleration of production have on overall quality control? Some manufacturing can be negatively affected by sudden logistical changes associated with overtime.
- What would be the impact on production team morale? This overtime likely would come during the holiday season. Many manufacturing companies have a traditional practice of closing during the week prior to the new year.
- If the Imperial order is accelerated, what happens to plant utilization during the period the order was originally scheduled for production?
- What is the potential consequence to future orders from Imperial? Will they now attempt to negotiate deeper discounts or to place orders closer to quarter-end knowing that management may be inclined to sacrifice long-term economics for near-term orders? There is a similar risk in future sales to other customers, and subtle impacts on the way the sales team approaches the market.

Based on the discussion in the case study, it’s reasonable to conclude accelerating the shipment of this order would be a very poor alternative. First, it would reduce the contribution margin on this order by 20% and it’s likely that the scheduling inefficiencies in the month the order was scheduled for production will further erode the overall realized margin. It’s not possible to evaluate the impact on morale and quality, but these issues are also important elements to consider. The only reason the company should



consider accelerating this order is if it were facing a production bottleneck in the future, and working overtime now helps to smooth out the production flow. It goes without saying that customers will learn the company's operational objectives. When company management starts to trade long-term economic considerations for near-term revenue it is difficult to reverse the trend.

**2. Reduce inventory to create a LIFO inventory layer adjustment.** The controller has worked actively to reduce inventory levels. This has positive benefits associated with lower risks of obsolescence, working capital relief and reducing physical storage space. If in the ordinary course of business there are ways to further reduce the level of inventory and to continue the move toward "just-in-time" inventory replenishment, this is a good business decision. It may also have positive near-term financial benefits. If on the other hand the inventory reduction is temporary, it will likely have significant future consequences associated with inefficiencies in the manufacturing process and negative implications for vendor relationships.

As for inventory reserves, this is a slippery slope. The inventory either has value or does not. If it is spare parts for service and warranty, then this most likely should either be depreciated over time or charged to expense up-front as part of expected future warranty.

**3. Prototype manufacturing equipment.** The financial considerations are simple: If the equipment is production ready, the costs are capitalized. If the equipment is still in the development phase, the costs are expensed as incurred. While the controller has focused on the definition of "production ready," there is a broader, more relevant theme. Presumably the new equipment will yield economic benefits to the company through a combination of better yields, higher quality and lower production costs. Given these benefits, it's in the company's best interest to get this equipment into production as soon as practical. It is potentially to the company's advantage and therefore a good business decision to accelerate development and deployment of the new production equipment.