



R E T A I L E R
MOMENTUM

Keeping Score...
Inventory
Management:
Turning
Inventory
Into
Profit



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TURNING INVENTORY INTO PROFIT: KEEP SCORE!

As a bookseller, your inventory is your lifeblood. In the average bookstore, it also represents 65% of your total financial investment. That's about 4 times the size of any other investment in your store. In order for your business to keep its doors open, you need to constantly measure and monitor - **KEEP SCORE** - on how effectively you are managing your largest asset. One of the ways that can be done and improved upon is by calculating inventory turns. Understanding the power of faster turnover should enable you to:

- § Increase your Gross Margin Return on Inventory Investment
- § Free up working capital and improve cash flow
- § Increase your title selection and breadth to better serve your customers without increasing your inventory investment
- § Free up shelf space for additional titles or for increased use of face out titles

In this booklet, we will answer fundamental questions about Inventory Turn, including

- § What is Inventory Turn?
- § How is turn measured?
- § How does turn affect my customers and my profitability?
- § How can I improve my Inventory Turn?

This booklet won't tell you how to run your store, but it will introduce you to the concepts of inventory turns and the effect turns have on your bookstore and your checkbook. This booklet is both a first-step guide for new booksellers and a valuable refresher tool for experienced booksellers.

We start with simple concepts and gradually build on them to reveal the full impact of inventory turn. In the process, we will reach some conclusions that might surprise you.

We hope this booklet serves as a foundational reference tool and that it is regularly reviewed with the intent of ensuring a profitable and dynamic bookselling environment for your business and ministry.

As a bookseller, your inventory is your lifeblood. In the average bookstore, it also represents 65% of your total financial investment!

INVENTORY TURN

What is Inventory Turn?

Inventory Turn is the number of times you sell and replenish your inventory during a given period of time, usually a year. You can measure inventory turn for a single title, for a category such as devotionals, or for your entire inventory. Most booksellers measure turn for all three to varying degrees. However, when you hear booksellers refer to **Inventory Turn**, they are usually referring to their entire inventory.

What Information is Needed to Measure Inventory Turn?

Inventory Turn is defined as the **Cost of Goods Sold** during a year divided by the Average Inventory Value for the same year. (see the Glossary for definitions of terms used throughout this booklet).

Cost of Goods Sold (COGS) is the cost associated with purchasing inventory for resale, including what you paid for the books, shrinkage, freight-in and discounting. Some booksellers prefer to calculate turns using the retail sales value. The important key to calculating inventory turn is consistency. If you use your **Cost of Goods Sold** at the pure retail value (sales), then you must recalculate your average inventory value at retail. So, the formula is the same as long as the values are consistent.

$$\text{INVENTORY TURN} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory Value (the cost of your investment)}}$$

To understand where the numbers used to calculate **Inventory Turn** originate, let's look at two commonly used score keeping methods using your financial statements. We will look at your Income Statement and your Balance Sheet.





The Income Statement [P&L]

The **Income Statement** (also known as the Profit-and-Loss or P&L statement) is used by managers, accountants and bankers to measure the performance of a business over a period of time. The **Income Statement** contains all the necessary income and cost elements to arrive at an accurate net income. It is important to remember that the income statement is a summary of results for a period of time, most often a month, a quarter or a year. *Figure 1* is an example of a simplified **The Income Statement**.

Income Statement
For the year ending December 31, 2003

Sales	\$500,000 (100%)
Less Cost of Goods Sold	<u>300,000 (60%)</u>
Gross Margin	200,000 (40%)
Less Expenses	
Payroll Expense (Includes wages and owners compensation)	83,000
Occupancy Expense (Rent, Mortgage, etc.)	33,000
Other Expenses (Freight, Maintenance, etc.)	<u>45,000</u>
Total Operating Expense	\$161,000
Income Before Taxes	\$39,000

Figure 1 - Income Statement

The Income Statement shows dollar sales, **Cost of Goods Sold**, the associated selling, administrative and overhead costs, interest expense, taxes and finally the store's income or bottom line.

Notice that the store in our example had sales of \$500,000 during the time covered by the Income Statement.

The books that were sold cost the bookseller \$300,000, as indicated by the **Cost of Goods Sold** figure. This leaves the bookseller with a gross margin of \$200,000. If the gross margin is divided by sales, we see that the bookseller's average discount was 40%.

The Balance Sheet

We can define the **Balance Sheet** as a financial picture of a company at a specific point in time. It includes assets, liabilities and owner's or stockholders' equity. In contrast to the Income Statement, which gives a summary of a business' performance over a period, the balance sheet is a snapshot of the business' financial status at a particular point in time. When we return to the calculation of inventory turn, this will become important to us. The **Income Statement** (P&L) serves as the link between two balance sheets, a starting and an ending balance sheet, and explains the change between the two.

The top of the **Balance Sheet** lists all the business' assets. An asset is something you "possess." It can be cash, inventory, furniture or fixtures.

Current Assets are cash or items that can be turned into cash within 12 months. Fixed Assets are assets used for more than 12 months, such as bookcases, computers and signs.

The bottom half of the **Balance Sheet** shows how the company's assets were financed, either with liabilities or with the owner's money (equity). We will define a liability as something you owe, a business debt or other financial obligation. Current Liability is due for payment within 12 months. Long-term Liabilities are debts due for payment after 12 months. The **Balance Sheet** is so named because the business' assets must balance its liabilities and equity. *Figure 2* is an example of a simplified **Balance Sheet**.



Balance Sheet

For the year ending December 31, 2003

Assets	
Cash	30,000
Accounts Receivable	10,000
Inventory	100,000
Total Current Assets	140,000
Fixed Assets	60,000
Total Assets	\$200,000
Liabilities	
Current Notes Payable	50,000
Accounts Payable	70,000
Total Current Liabilities	\$120,000
Long-term Debt	30,000
Total Liabilities	150,000
Owner's Equity	
Paid-in Capital	30,000
Retained Earnings	20,000
Total Equity	\$50,000
Total Liabilities & Equity	\$200,000

Figure 2 – Balance Sheet



Calculating Inventory Turn

Now we have the tools we need to calculate **Inventory Turn**.

Remember:

$$\text{INVENTORY TURN} = \frac{\text{Cost of Goods Sold (from Income Statement)}}{\text{Average Inventory Value (from Balance Sheet)}}$$

Let's use our sample financial statements to compute our Inventory Turn for the year. *Figure 1* shows that **Cost of Goods Sold** for the year was \$300,000.

REMINDER #1

- \$ We must remember to be sure we are comparing apples to apples when we compute **Inventory Turn**.
- \$ We are using **Cost of Goods Sold** in this example because our inventory is carried in cost on the Balance Sheet.

Some booksellers carry their inventory at retail. This means that their inventory value reflects the cost of inventory plus the anticipated markup at the time of sale. If we are to compare apples to apples in this case, we must then divide sales (which include the cost of goods plus markup) by inventory.

Now we have:

$$\text{INVENTORY TURN} = \frac{\$300,000}{\text{Average Inventory Value}}$$

We need to determine our **Average Inventory Value** for the year. Let's say we have quarterly balance sheets which show the following inventory values (assume this store's fiscal year ends December 31):

Q1 (January - March)	\$ 100,000
Q2 (April - June)	\$ 125,000
Q3 (July - September)	\$ 175,000
Q4 (October - December)	\$ 200,000



We can now compute our **Average Inventory Value** as:

$$\text{Average Inventory Value} = \frac{Q1 + Q2 + Q3 + Q4}{4}$$

$$\frac{\$100,000 + \$125,000 + \$175,000 + \$200,000}{4} = \$150,000$$

REMINDER #2

The inventory value on any given balance sheet probably does not reflect the “average” or typical level of inventory for the period identified on the balance sheet. Even an average of quarterly inventory values may not be representative of your “typical” inventory value.

Now we can calculate our **Inventory Turn** for the year:

$$\text{INVENTORY TURN} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory Value}} = \frac{\$300,000}{\$150,000} = 2 \text{ Turns}$$

REMINDER #3

Some bookstores specialize in the sale of products that come in and go out the back door or are drop shipped directly to customers or accounts. Adjustments to Sales and Cost of Goods figures must be made for products sold direct, but not stocked in the store. Since **Inventory Turn** is a ratio of product sold in relationship to product stocked, calculating **Inventory Turn** without making such an adjustment will lower your real or actual **Inventory Turn**. For instance, if the store in our example above produced 15% of their sales from non-stocked product, after making the adjustment, their actual **Inventory Turn** would be close to 2.5 and not 2.0

The Importance Of Inventory Turn

Why should we be concerned about Inventory Turn? Most booksellers are aware that increased Inventory Turn can lead to higher profitability. However, many are unaware of the positive effects increased turn can have on their customers.

In the following sections, we will show how increasing your turn can put more money in your cash register and put more titles on your shelves.

GMROII
is the tool
you need
for examining
the impact
that
purchasing
decisions
and Inventory
Turn
have on your
largest
investment -
your
inventory!

■ GROSS MARGIN RETURN ON INVENTORY INVESTMENT (GMROII)

Do you have investment in stocks, bonds, real estate or commercial bank deposits? Do you **KEEP SCORE** on how they are doing? Do you know what your payback is?

Would you deposit your savings in a bank paying 7% interest when the bank next door pays 8.5%? Probably not - once you found out the bank next door paid more! You would deposit your money in the bank that would make you the most money. It makes the most sense.

What if a law stated that banks could pay interest only on the first \$100 you deposit? Anything over \$100 would draw no interest. If you had \$500 to deposit, would you put it all in one bank? No, you would put \$100 in five different accounts so it would draw the highest interest possible. That makes the most sense.

The very same principles should be applied to inventory and your buying decisions. After all, your inventory is by far the largest investment you have in the store. Look at it this way, every title you purchase is an investment decision you must carefully weigh against all other available investment opportunities, including purchasing different titles or purchasing the same title in a different manner. **Gross Margin Return On Inventory Investment (GMROII)** is the tool you need to use to examine the impact that your purchasing decisions and **Inventory Turn** have on your largest investment - your inventory. It only makes sense.

What is GMROII?

GMROII analysis reveals whether an adequate gross margin is being earned compared to the investment required to generate the gross margin. **GMROII** measures both inventory profitability and productivity. The technique of **GMROII** analysis was developed to help retailers make better purchasing decisions - to earn more on each purchase decision investment they make.

GMROII provides an easier way for booksellers to analyze purchasing decisions than other approaches that are more traditional. Unlike traditional ROI, which measures the rate of return on all your "investments" including building and fixtures, **GMROII** looks only at the dollars invested in inventory. This allows you to isolate and analyze the effect of various inventory purchasing options.

Operating expenses, interest expense and taxes do not factor into **GMROII** analysis; they are held at a constant for this analysis so we can focus our attention solely on the purchasing decision.

How Does GMROII Work?

Let's start with a simple example using a single book. Suppose we buy a \$10.00 book at a 40% discount. When we sell the book, our gross profit is \$4.00 on an investment of \$6.00. Dividing \$4.00 by \$6.00, we see that we have realized a return of 0.66, or 66%. Normally discussions of return on investment refer to an annual rate. In our example, if the book sat in inventory for a year before it sold, the return of 66% we just calculated would be correct.

Increased Turn - Increased GMROII

But what if it took only one week to sell the book? To get an annual rate of return on inventory investment, we would multiply our calculated return by 52 (the number of weeks in a year), giving an annual return of 3,432%. Quite a difference!

What did we do when we multiplied by 52? We simply multiplied the gross rate of return per book by the **Inventory Turn** for the year. The result was an annualized **GMROII** that assumes sales will continue at the rate of one book per week for the rest of the year, and that we will continue to maintain an inventory of one copy. Unfortunately, this rarely is the case. Sales and inventory levels fluctuate throughout the year, so we need a more workable method of calculating **GMROII**.

$$\text{GMROII} = \left\{ \frac{\text{Gross Margin}}{\text{Cost}} \right\} \times \text{Inventory Turn}$$

To review:

Let's break this equation down to make it more understandable.

$$\text{Gross Margin} = \text{Price} \times \text{Discount}$$

And

$$\text{Cost} = \text{Price} \times (1 - \text{Discount})$$

By substituting "Price x Discount" for Gross Margin and "Price x (1 - Discount)" for Cost, we get:

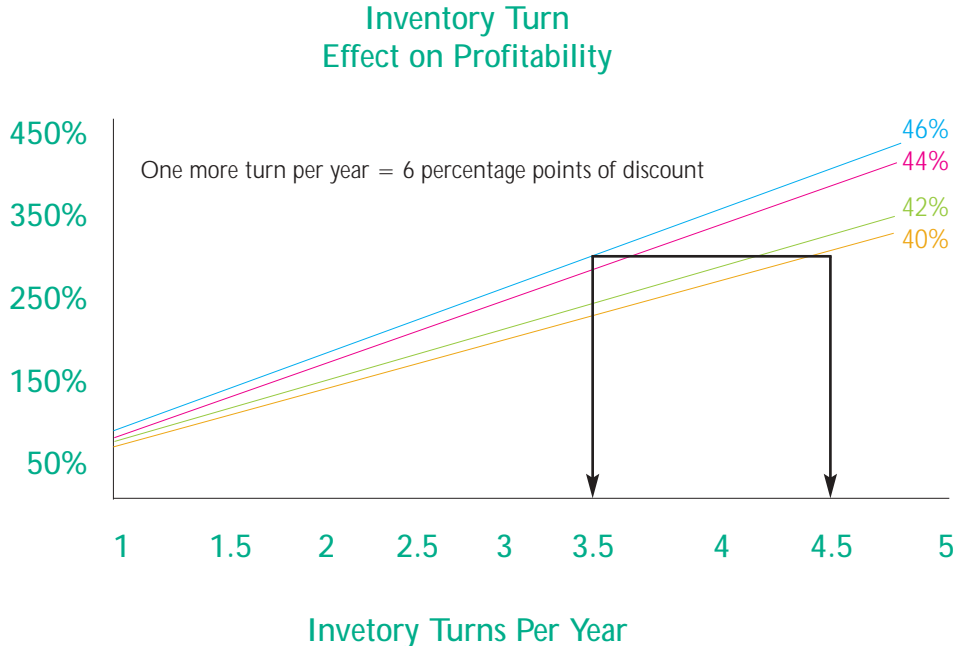
$$\text{GMROII} = \left\{ \frac{\text{Price} \times \text{Discount}}{\text{Price} \times (1 - \text{Discount})} \right\} \times \text{Inventory Turn}$$

By canceling out Price in the numerator and denominator, we can rewrite our **GMROII** equation as:

$$\text{GMROII} = \left\{ \frac{\text{Discount}}{(1 - \text{Discount})} \right\} \times \text{Inventory Turn}$$

Now we can see the importance of discount and **Inventory Turn** in determining our **GMROII**.

Figure 3 shows the relative effect of discount and **Inventory Turn** on **GMROII**. Each line on the graph represents a particular discount percentage (from 40% to 46%). Along the bottom of the graph is **Inventory Turn** per year. Along the side is **GMROII** expressed as percent return on every dollar invested.



Inventory Turns Per Year
Figure 3 - Effect on Profitability

We can see in *Table 1* that if we turn inventory purchased at a 40% discount 4.5 times, we will realize virtually the same return on investment (300%) as if we turned inventory purchased at a 46% discount 3.5 times (298%).

GMROII at Various Purchase Discounts

TURN	Purchase Discount							
	40%	41%	42%	43%	44%	45%	46%	47%
0.1	7%	7%	7%	8%	8%	8%	9%	9%
0.5	33%	35%	36%	38%	39%	41%	43%	44%
1.0	67%	69%	72%	75%	79%	82%	85%	89%
1.5	100%	104%	109%	113%	118%	123%	128%	133%
2.0	133%	139%	145%	151%	157%	164%	170%	177%
2.5	167%	174%	181%	189%	196%	205%	213%	222%
3.0	200%	208%	217%	226%	236%	245%	256%	266%
3.5	233%	243%	253%	264%	275%	286%	298%	310%
4.0	267%	278%	290%	302%	314%	327%	341%	355%
4.5	300%	313%	326%	339%	354%	368%	383%	399%
5.0	333%	347%	362%	377%	393%	409%	476%	443%
5.5	367%	382%	398%	415%	432%	450%	469%	488%
6.0	400%	417%	434%	453%	471%	491%	511%	532%

Table 1
GMROII at Various Purchase Discounts

In this case, one more Inventory Turn per year is worth 6 percentage points in discount. Or think of it this way: one extra turn per year translates into approximately the same absolute dollars to you, the owner, without having to rely upon larger discounts from publishers or holding extra inventory.

How you manage your turns can result in absolute dollars to your bottom line.

Doesn't it make sense to know what turns can mean?

A TALE OF TWO BOOKSELLERS

Two booksellers with identical capital resources (invested capital plus debt) buy a particular title that retails for \$10.00. For now, this is the only title they will carry.

Both booksellers expect to sell one copy of the book per month. The publisher has offered **Bookseller A** an opportunity to buy 12 copies of the book at a 46% discount. **Bookseller B** buys three books from a wholesaler at a 40% discount whenever the inventory level reaches one copy. Both decide to buy.

Who Has Made the Wiser Purchasing Decision?

Let's see! *Figure 4* below depicts each bookseller's inventories (in units) at the beginning of each month. A horizontal line represents each bookseller's average inventory level for the year.

Looking at the chart in *Figure 4*, we can see that **Bookseller A's** average inventory level for the year is six books while **Bookseller B's** is only two books. Therefore, each Bookseller had an average inventory value of:

Average Inventory Value **Bookseller A**

$$\$ \text{ Average Units} \times \text{Average Cost/Unit} = 6 \text{ Units} \times \$5.40/\text{Unit} = \$32.40$$

Average Inventory Value **Bookseller B**

$$\$ \text{ Average Units} \times \text{Average Cost/Unit} = 2 \text{ Units} \times \$6.00/\text{Unit} = \$12.00$$

Monthly Inventory Level
Effect on Profitability

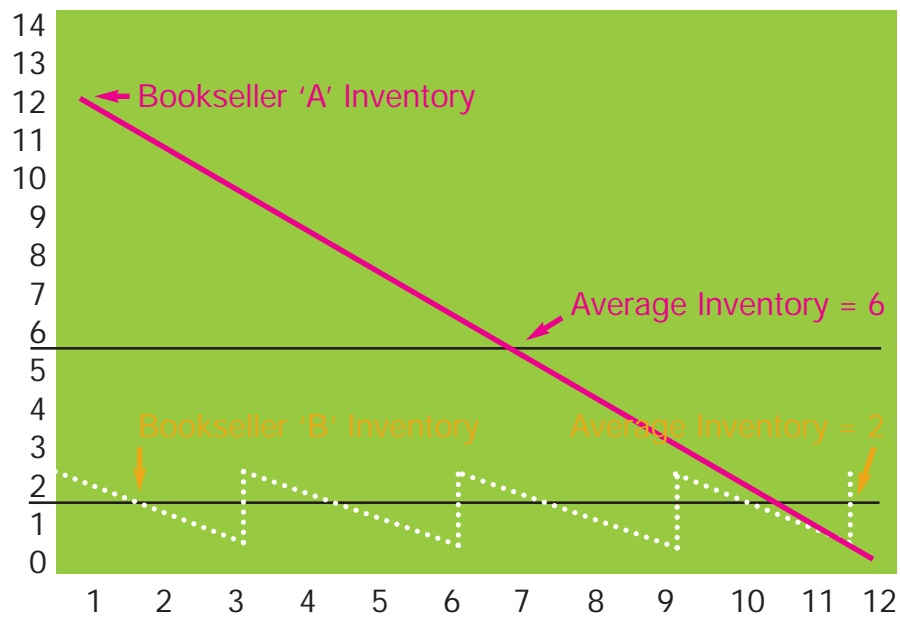


Figure 4 - Monthly Inventory Level

Figures 5 a-c show the annual results for both booksellers. Note that the **Balance Sheets** show each bookseller's average account balance for the year.

	<u>Bookseller 'A'</u>	<u>Bookseller 'B'</u>
Sales	\$120.00	\$120.00
Cost of Goods Sold	-64.80	-72.00
Gross Profit	\$55.20	\$48.00

Figure 5a - Income Statements

Average Balance Sheets

	<u>Bookseller 'A'</u>	<u>Bookseller 'B'</u>
Assets		
Inventory	\$32.40	\$12.00
Cash	2.60	23.00
Furniture & Fixtures	35.00	35.00
Total Assets	\$70.00	\$70.00
Liabilities & Equity		
Debt	\$50.00	\$50.00
Owner's Equity	20.00	20.00
Total	\$70.00	\$70.00

Figure 5b - Average Balance Sheet

Turn & GMROII

	<u>Bookseller 'A'</u>	<u>Bookseller 'B'</u>
Turn	$= 64.8 / 32.4$	$= 72 / 12$
$\frac{\text{Cost of Goods Sold}}{\text{Avg. Inventory Value}}$	$= 2$	$= 6$
GMROII	$= [0.46 / (1 - 0.46)] \times 2$	$= [0.40 / (1 - 0.40)] \times 6$
$\frac{\text{Discount}}{(1 - \text{Discount})} \times \text{Turn}$	$= 1.7$	$= 4.0$
	$= 170\%$	$= 400\%$

Figure 5c - Turn & GMROII

The Increased Turn Strategy

Bookseller A showed a higher gross profit. He sold 12 books, each with a gross margin of \$4.60 while **Bookseller B** only made \$4.00 each on the books sold.

Conventional wisdom would say that **Bookseller A** made the better purchasing decision, but given our new knowledge of the relationship between Inventory Turn and GMROII, let's further examine the two stores' performance. **Bookseller B** was able to turn her inventory six times compared to **Bookseller A's** two times. Consequently, **Bookseller B** made \$4.00 gross profit on every dollar she invested, while **Bookseller A** made only \$1.70. **Bookseller B** took advantage of shorter order lead times through rapid replenishment sources and came out with more gross profit in hand.

The effect on the two **Balance Sheets** in *Figures 5 & 6* is clear. **Bookseller B** is in the enviable position of having available cash to invest in a variety of ways. She might:

- § Invest in other books to broaden her title base
- § Reduce debt
- § Purchase advertising to increase her sales
- § Invest in store improvements
- § Put the money in a savings or money market account



Looking at **Bookseller A**, he has let most of his working capital sit idle on his shelves because he bought a greater number of titles at a higher discount, but they are sitting on his shelf, not earning any return.

Unfortunately for **Bookseller A**, the only way he can free up his capital is to discount his books to increase sales or, return the books. Either alternative is costly and will reduce his profitability. He is investing time and labor in items that are not selling.

Bookseller B is able to put her additional working capital to work because it is in the form of cash. *Figures 6 a-c* show how **Bookseller B** uses the cash to purchase a second title as she did in the previous example since she knows of another title that she expects to sell as well as the first.

Balance Sheet Totals have not changed, but she has more titles. She realizes that sales growth and improved customer service result from increasing title breadth, not title depth.

Moral: It Pays to Take "Turns"

In *Figure 6a*, **Bookseller B** has shown close to a 75% higher gross profit (\$96 versus \$55.20) and still has \$11.00 of cash left for further investment in inventory or store improvements. In addition to turning a greater profit, **Bookseller B** also has provided better customer service by stocking a broader selection of titles while carrying fewer total books.

Do you ever question why some stores that seem to ignore the "discount rules" and buy a lot of product from distributors at a lower discount appear to be more profitable than a store - which ALWAYS buys for a better discount? You may be getting close to the answer when you understand **GMROII**.





Figures 6 a-c show how **Bookseller B** uses the cash to purchase a second title as she did in the previous example since she knows of another title that she expects to sell as well as the first. She realizes that sales growth and improved customer service result from increasing title breadth, not title depth.

Income Statements

	Bookseller 'A'	Bookseller 'B'
Sales	\$120.00	\$240.00
Cost of Goods Sold	-64.80	-144.00
Gross Profit	\$55.20	\$96.00

Figure 5a - Income Statements

Average Balance Sheets

	Bookseller 'A'	Bookseller 'B'
Assets		
Inventory	\$32.40	\$24.00
Cash	2.60	11.00
Furniture & Fixtures	35.00	35.00
Total Assets	\$70.00	\$70.00
Liabilities & Equity		
Debt	\$50.00	\$50.00
Owner's Equity	20.00	20.00
Total	\$70.00	\$70.00

Figure 5b - Average Balance Sheet

Turn & GMROII

	Bookseller 'A'	Bookseller 'B'
Turn	$\frac{64.8}{32.4} = 2$	$\frac{72}{12} = 6$
$\frac{\text{Cost of Goods Sold}}{\text{Avg. Inventory Value}}$		
GMROII	$= [0.46 / (1 - 0.46)] \times 2 = 1.7$	$= [0.40 / (1 - 0.40)] \times 6 = 4.0$
$\frac{\text{Discount}}{(1 - \text{Discount})} \times \text{Turn}$	$= 170\%$	$= 400\%$

Figure 5c - Turn & GMROII

The choice is not whether to have an inventory control system, but rather which method to use.

MANAGING YOUR OPERATIONS TO INCREASE INVENTORY TURNS

Now that you understand the importance of **Inventory Turn**, consider what you can do to increase it.

Inventory Management Systems

To manage your operations and increase inventory turn, you must know:

- § What titles are in stock
- § How many copies of each are in stock
- § The sales history of each title

Inventory management systems provide this important information to help you effectively, efficiently and economically manage your inventory.

Inventory management systems range from simple manual systems, such as card-in-book, to highly efficient on-line computer-based inventory management and point-of-sale systems. The choice is not whether to have an inventory control system, but rather which method to use.

PC-based point-of-sale (POS) and inventory management systems such as the IBID/IRT system, give you the tools you need to effectively and economically manage your inventory. In fact, a PC-based system will more than pay for itself in all but the smallest bookstores. An inventory control system is a necessary investment - not an expense.

Reorder Point & Safety Stock

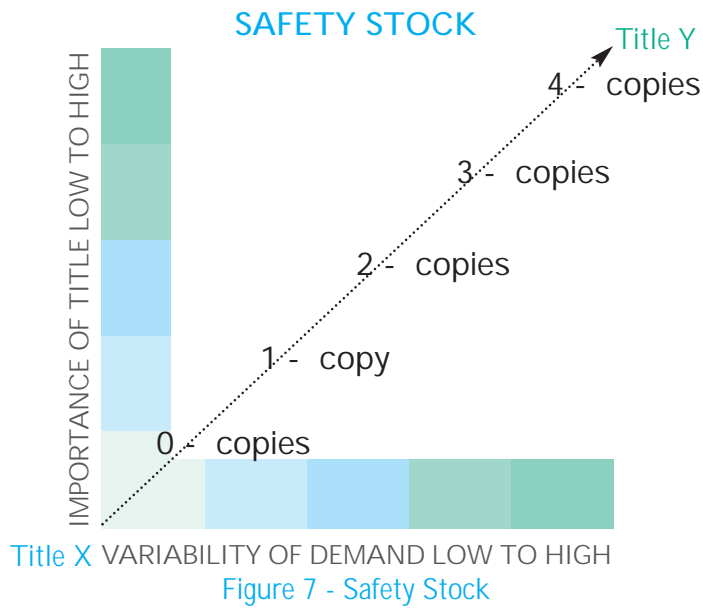
When do you need to reorder a title? That's called the reorder point - the number of copies on your shelf below which it is time to replenish a particular title. Each title in your inventory should have a reorder point based on previous sales history. The reorder point will play a large part in determining your average inventory level. Several factors should be considered when establishing a reorder point. These include:

- § Safety stock
- § Anticipated demand based on sales history
- § Lead time

Safety stock is the minimum inventory level established for a particular title. It is held to insure against running out of the title. If you had a proverbial crystal ball and could perfectly predict demand and lead time for a title, you wouldn't need to maintain any safety stock. But demand and lead time both fluctuate, so you must make allowances for temporary sales peaks and delivery delays.

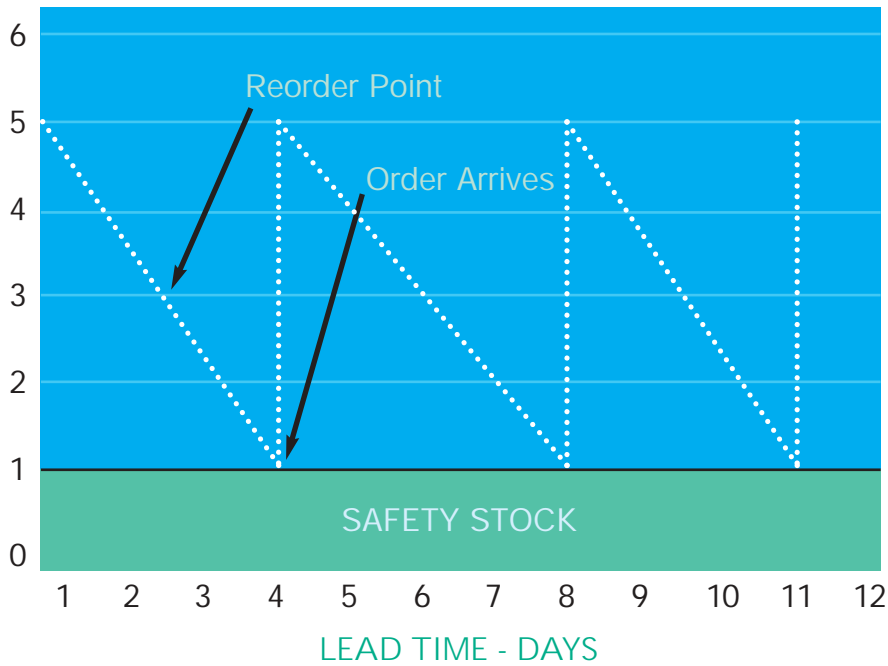
To determine the safety stock level for a particular title, consider the variability of demand for the title, and the relative importance of maintaining the title in stock. *Figure 7* gives an example of how to determine a safety stock level.





Variability of Demand

As you can see, if the demand for a title is typically low and the relative importance of avoiding a stockout is low, then you might not carry any safety stock (Title X). On the other hand, if the title is very important and you expect a high demand (as with a hot new bestseller), you may choose to carry five copies as safety stock (Title Y).



Always consider the opportunity cost of carrying safety stock. In other words, every dollar you invest in safety stock could be invested in a different title that could generate additional sales.




Figure 8 shows that the bookseller has established a safety stock level of one book. It also shows that the book is selling at a rate of one per day, as evidenced by the one unit reduction in inventory level each day.

So now you know the target level of safety stock (one book) and the anticipated demand (one book/day). You need two more pieces of the puzzle to establish your reorder point.

First, you need to know how long it will take to receive a reorder from your supplier. This is known as lead time.

You also need to know the variability of your lead time. This is directly related to the reliability of your suppliers.

Assume that you can count on a two-day lead time 95% of the time. You will use this formula to determine your reorder point:

$$\text{Reorder Point} = \left[\text{DEMAND} \times \text{LEAD TIME} \right] + \text{SAFETY STOCK}$$

So your reorder point will be:

$$\text{Reorder Point} = \left[1 \text{ BOOK/DAY} \times 2 \text{ DAYS} \right] + 1 \text{ BOOK} = 3 \text{ BOOKS}$$

Notice that in *Figure 8*, the bookseller will reorder on days 2, 6 and 10 when inventory level reaches three books.

But what if your reorders sometimes arrive in two days, sometimes in two weeks? How will this affect your reorder point?

If you don't want to risk running out of the title, you must either increase your safety stock to cover two weeks' demand or raise your reorder point to:

$$\text{Reorder Point} = \left[1 \text{ BOOK/DAY} \times 14 \text{ DAYS} \right] + 1 \text{ BOOK} = 15 \text{ BOOKS}$$

Obviously, it will be difficult to maintain a high level of **Inventory Turn** if you have to carry this much inventory.

Delivery Speed - An Example

Suppose that by using a faster, more reliable supplier, you could reduce your level of safety stock on 1,000 titles by one copy each. What effect would this have on your business?

Assume that the average cost of a book is \$6. Reducing the total number of books in inventory by 1,000 would produce \$6,000 available for investment in other titles that would generate additional sales.

But where would you put the additional titles?

If the average width of a book is one inch, a 1,000-book reduction in inventory would produce approximately 83 feet of shelf space. That is just about two four foot long by five foot high bookcases.

With the available cash and space, you could create a whole new section or expand one of your existing popular sections.

Just-in-Time Delivery

Just-in-Time (JIT) delivery has revolutionized many industries. Now booksellers can also realize its benefits. The idea behind Just-in-Time delivery is to:

- § Reduce title depth (number of copies per title)
- § Increase title breadth with the cash made available through depth reduction
- § Reorder only enough books to replenish what has already sold plus what is likely to sell before the order arrives

For Just-in-Time delivery to be realistic, you need fast, reliable suppliers.

To hold down ordering costs that otherwise would outweigh the benefits of Just-in-Time delivery, you also need to limit the number of suppliers you use.

With Just-in-Time delivery, you are able to reduce the hidden cost of returns by keeping your entire inventory in saleable condition and by reducing the number of books on which you will pay return postage.

With Just-in-Time delivery from a few reliable suppliers, you will reduce the amount of time you spend ordering, receiving and paying for books. Minimum orders will be easier to achieve. Freight costs will drop. And you will be able to get back to doing what you do best - helping your customers.



JUST IN CASE - DON'T FORGET TO KEEP SCORE

Availability of Book Industry Data

On a regularly scheduled basis, both CBA, the trade association representing Christian retailers internationally and ABA (American Booksellers Association) publishes data collected from book retailers designed to help you KEEP SCORE. In looking at the historical data available in Operating Surveys conducted by CBA related to **GMROII** there was only a one-cent difference between the **GMROII** of all survey respondents in 1995 and in 2000. The 1995 **GMROII** was \$1.49 while 2000 ranged in at \$1.50. In addition, Inventory Turn in each of those years remained identical at 2.4.

Track Your GMROII

Each year, track your store's **GMROII** for continued improvement. Use this valuable tool each year and KEEP SCORE of your store's **GMROII**.

You've now had an opportunity to be exposed to the direct cause and effect relationship between buying discounts, inventory turn and **GMROII**.

Don't be fooled by thinking you are practicing good inventory management or Just-In-Time inventory. Test yourself-keep score! If you are doing it right, it will be reflected in your **GMROII** analysis. Keep a running score card each year. Go back a few years, calculate your **GMROII**, and monitor your performance each year. Track where you have been and where you want to go. Get a better return on your largest investment-your inventory. It will pay off!

PUTTING IT ALL INTO ACTION

Choosing Suppliers

In choosing Just-in-Time suppliers, you need to consider four critically important factors:

1. AVERAGE DELIVERY SPEED

If all other factors are equal, you should choose suppliers with the shortest average lead time. Two factors - order turn around time and speed of delivery to your store. A shorter lead time means a lower reorder point, lower average inventory, increased **Inventory Turn** and increased profitability. A shorter lead time also means you will be able to react to changes in the market more quickly. You will be less likely to either run out of stock if sales increase unexpectedly or find yourself with scores of returns if sales suddenly drop.

2. VARIABILITY OF DELIVERY TIME

Good Just-in-Time suppliers will consistently deliver your orders when you expect them. A supplier that always delivers your orders in one week is far better than a supplier who sometimes delivers in two days, sometimes in two weeks. With the unreliable supplier, you must always assume the worst and plan on a two-week lead time. Otherwise, you run the risk of losing sales and alienating your customers. By choosing reliable suppliers, you will lower the overall variability of your lead time, reduce your average inventory value, increase inventory turn and profitability and increase your customers' satisfaction.

3. PRICE

All other things being equal, you obviously are better off buying from the supplier with the highest discount. Keep in mind, however, that other things seldom are equal. As we have seen, **Inventory Turn** has a much greater effect on profitability than does discount. Higher discounts may or may not be in your best interest. They generally are offered to entice you to order in a manner that is less profitable for you, but assures suppliers of receiving the order.

4. TITLE BREADTH

Suppliers with a broad selection of titles allow you to place fewer total orders, thereby minimizing your ordering and freight costs and maximizing your discount. It would be impractical to place daily orders with hundreds of suppliers. The ordering and freight costs alone would offset any benefits of increased **Inventory Turn**.



Ordering Efficiently

When placing an order for a particular title, consider all the costs involved: personnel, meeting individual supplier minimums, freight, lead time, terms, receiving ease, paperwork, follow-up, etc. When thinking about making a large purchase of a single title, consider the opportunity lost of not investing in a wider breadth of titles.

Consider the cost of returning the books if they do not sell and consider the cost of storing the excess books, either on a shelf or in your back room. Which is more valuable to you - books on the selling floor reflecting your customers' interests, or stacks of duplicate books in the stockroom waiting for a restocking opportunity?

Weigh the effect of a higher discount against the effect of increased Inventory Turn in determining your return on inventory investment. There will be cases (such as a new release from a hot author) in which it will make sense to purchase large quantities of a particular title. The presence of many copies will suggest to your customers that it is an important title. But always temper your decision with the knowledge that increased title depth means lowers turn and lowers return on inventory investment.

Look for ways to minimize the amount of time and effort spent ordering. Electronic ordering can reduce the amount of time spent on the administrative aspects of ordering.

Here is an example of how efficient the reordering process can be using the IBID/IRT inventory management system and **flashback**[®] electronic ordering.

The IBID/IRT system recommends reorders to you based on sales, on-hand and on-order quantities. You then edit the order to your liking and transmit it electronically. If you are sending an order to Spring Arbor or Ingram, you receive same-call stock status. All of this happens in a matter of minutes, rather than hours or days. You don't even have to be present in the store to electronically order.

Today, you may receive valuable information from multiple sources. Many of these sources are providing the title information to better inform your customers on what they might want or need. The shift to more widespread publicity means you have to stay informed to meet the needs of your customers.

Wholesalers also can provide information on best-selling backlist titles. For example, if you are considering expanding your devotional section and want to know what titles are most popular, you can request a printout of your wholesaler's top-selling devotional or check popular database tools such as **companion**[®] or **ipage**[®].



SUMMARY

We have covered a lot of ground in this little booklet. We've moved from understanding and calculating **Inventory Turn**, **GMROII** and then to inventory management to improve your **Inventory Turn** and finally to using Just-in-Time delivery.

It is important to remember, however, that turn is a means to an end, not an end. **Inventory Turn** analysis is a valuable tool to help you monitor and enhance the effectiveness of your buying and inventory management decisions. But the goal is to improve your profitability and customer service without increasing your investment in inventory - that's what **GMROII** is all about.

We have not addressed the question, "What is a 'good' level of **Inventory Turn**?" Quite simply, there is no such thing as a standard "good" level of **Inventory Turn**. Variables such as title mix, location and customer base all effect turn. What is right for one store may not be right for another. A "good" level of **Inventory Turn** is one that has been monitored and has improved since the last calculation. Remember - KEEP SCORE! Continuous, gradual improvement in turn is evidence that your inventory investment and management decisions are resulting in decreased inventory depth and a greater **GMROII**. Every title you purchase should be viewed as an investment decision that must be carefully weighed against all other available investment opportunities, including purchasing a different title or purchasing the same title in a different manner. Any investment in unnecessary safety stock will reduce turns and **GMROII**.

Remember, a higher discount does not necessarily mean higher profitability if you have to buy additional copies of a book to achieve the discount. Just-in-Time delivery from fast, reliable suppliers allows you to eliminate unnecessary safety stock, increase your inventory turn and maximize your **GMROII**.

The next time you walk through your store, think of all the titles you see on your shelves as stacked dollar bills just sitting there. Then ask yourself this question "Do I know what kind of return on investment I am getting on those dollars?" You might be able to tell us how many times those dollars have come and gone (turns) each year - but if you don't know the return on investment - you need to know. Once you do, it will fundamentally change how you do business in the future or perhaps more accurately - how long you do business in the future.

In summary, bookselling is a complex business and no purchasing decision is black and white. There are many variables to consider. We hope this booklet has provided you with some tools to help you make the right purchasing decisions for your business. Remember - be informed, be observant and be measuring - keep score on how you conduct your business and you'll get high scores from you customers too.

■ ADDITIONAL RESOURCES

Ingram Customer Systems is a full-service provider of computer systems for booksellers. For more information about how Ingram Customer Systems can help make your business more competitive, call them at (800) 234-6737, option 2, or via e-mail: ics-sales@ingrambook.com.

CBA, an association for Christian retailers, offers educational sessions at national and regional trade shows. In addition, they provide a variety of educational materials, assistance and services to booksellers. Contact CBA for more details.

CBA
9240 Explorer Drive
Colorado Springs, CO 80920-5001
Phone: (719) 265-9895 or (800) 252-1950
E-mail: info@cbaonline.org

ABA - Founded in 1900, the American Booksellers Association is a not-for-profit organization devoted to meeting the needs of its core members of independently owned bookstores with retail storefront locations through advocacy, education, research, and information dissemination.

American Booksellers Association
828 South Broadway
Tarrytown, NY 10591.
Voice: (800) 637-0037
Fax: (914) 591-2720
Website: <http://www.BookWeb.org>
e-mail: info@bookweb.org

The American Management Association (AMA) provides educational forums to teach practical business skills and explore the best practices of world-class business organizations. The AMA hosts seminars throughout the U.S. Call the AMA at (212) 903-8168 or visit their website at <http://www.amanet.org>.

GLOSSARY

Asset: Something you “have.” It can be cash, inventory, furniture or fixtures.

Current Assets are cash or items that can be turned into cash within 12 months.

Fixed Assets are the assets used for more than 12 months. Examples: bookcases, computers and signs.

Balance Sheet: A financial picture of a company at a specific time. It includes assets, liabilities and equity.

Cash Flow Statement: A financial statement which accounts for all changes in cash balances by detailing the offsetting changes in all other balance sheet accounts. This statement begins with net cash flow from operations and details all other sources and uses of cash.

Cost of Goods Sold: The cost associated with purchasing inventory for resale. Components include what you paid for the books, slippage/shrinkage, freight-in and discounting.

Equity: The amount of the owner's or shareholder's portion of the business, also called net worth.

GMROII: An analysis tool that indicates whether an adequate gross margin is being earned compared to the investment in inventory required to generate these gross margin dollars. GMROII takes both inventory profitability and productivity into account, and it looks only at capital invested in inventory.

Gross Margins: The percentage of profit generated from the sale of inventory after deducting the cost of sales.

Income Statement [or Profit-and-Loss or P&L statement]: Used to assess the performance of a business over a period of time. The financial data included is similar to the operating statement, but the format is more specific, resulting in a presentation of net income for the period covered.

Inventory Turn: The number of times a business sells and replenishes its inventory during a given period of time, usually a year.

GLOSSARY (continued)

Liability: Something you owe. A company's debts or other financial obligations.

Current Liability: Due for payment within 12 months.

Long-Term Liabilities: Debts not due for payment within 12 months. Long-term debt minus the current portion due within 12 months.

Operating Statement: A financial statement reporting the results of operations for a period of time. Data included are sales, cost of sales, operating expenses and net income. Formats vary widely depending on the information desired.

Reorder Point: The number of copies on hand below which it is time to reorder the title.

Safety Stock: The minimum inventory level established for a particular title. Slippage/Shrinkage: The cost associated with product that has been lost or deteriorated in value.

Stockholder's Equity: What the owners actually own. Comprised of Stock, Paid in Capital and Retained Earnings.

RATIOS

$$\text{INVENTORY TURN} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory Value (the cost of your investment)}}$$

$$\text{AVERAGE INVENTORY VALUE} = \text{Average Units} \times \text{Avg Cost per Unit}$$

$$\text{GROSS MARGIN} = \frac{\text{Sales} - (\text{Cost of Sales})}{\text{Sales}}$$

$$\text{GMROI} = \left\{ \frac{\text{Gross Margin}}{\text{Cost}} \right\} \times \text{Inventory Turn}$$

$$\text{GMROI} = \left\{ \frac{\text{Discount}}{(1-\text{Discount})} \right\} \times \text{Inventory Turn}$$

$$\text{Reorder Point} = \left[\text{DEMAND} \times \text{LEAD TIME} \right] + \text{SAFETY STOCK}$$

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