



Stock Turnover Ratio Guide

A comprehensive guide to calculating and understanding inventory efficiency.

1. Calculation Formulas

The Stock Turnover Ratio measures how many times a company has sold and replaced its inventory during a specific period.

$$\text{Stock Turnover Ratio} = \text{Cost of Goods Sold (COGS)} \div \text{Average Inventory}$$

To calculate the Average Inventory:

$$\text{Average Inventory} = (\text{Beginning Inventory} + \text{Ending Inventory}) \div 2$$

2. Calculation Example

Stock Turnover Ratio Calculation

Stock Turnover Formula:

$$\text{Stock Turnover} = \frac{\text{Cost of Goods Sold}}{\text{Average Inventory}}$$

Example Calculation:



Cost of Goods Sold = \$500,000



Average Inventory = \$100,000



Stock Turnover Ratio = 5 times

Suppose a retail company has the following figures:

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Cost of Goods Sold (COGS): \$500,000

- Beginning Inventory: \$90,000
- Ending Inventory: \$110,000

Step 1: Calculate Average Inventory

$$(\$90,000 + \$110,000) / 2 = \$100,000$$

Step 2: Calculate Stock Turnover Ratio

$$\$500,000 / \$100,000 = 5$$

Result: The company turned over its inventory 5 times during the year.

3. Stock Turnover Ratio in Days

Also known as Days Sales of Inventory (DSI), this metric tells you how many days it takes, on average, to sell your entire inventory.

$$\text{Days Sales of Inventory} = 365 \div \text{Stock Turnover Ratio}$$

Using our previous example where the Stock Turnover Ratio is 5:

$$365 \div 5 = 73 \text{ Days}$$

4. Deep Dive: Low Stock Turnover

A low stock turnover ratio generally indicates that a company is holding onto inventory for too long. While this isn't always negative (e.g., in luxury industries), it often signals underlying issues.

Common Causes:

- **Overstocking:** Ordering more products than demand justifies.
- **Weak Sales:** Ineffective marketing or economic downturns.
- **Poor Inventory Management:** Lack of visibility leading to obsolete items.

Potential Risks:

- **High Holding Costs:** Storage, insurance, and maintenance.
- **Cash Flow Constraints:** Capital tied up in unsold inventory.
- **Obsolescence:** Products becoming outdated or spoiled.

Key Takeaway: If your ratio is lower than your industry average, investigate whether it's a strategic choice or an efficiency problem.

5. Community Insights: Common Questions

Based on discussions from business communities, here are answers to the most common confusing points:

1. Why use COGS instead of Sales Revenue?

The Confusion: "Isn't Sales / Inventory the same thing?"

The Answer: No. Sales revenue includes profit margin. Inventory is recorded at cost. Dividing Sales by Inventory gives an inflated ratio. You must compare cost to cost.

2. Why "Average" Inventory?

The Confusion: "Why not just use current inventory?"

The Answer: Inventory levels fluctuate (e.g., high before holidays, low after). A single snapshot is misleading. The average smooths out spikes for a fair picture.

3. What does the number actually tell me?

The Insight: Think of it as "Refills".

If your ratio is 5, imagine you refilled your empty warehouse 5 times this year. It measures the velocity of your cash cycle—how fast you turn cash into goods and back.

6. Industry Benchmark Data

Inventory turnover benchmarks across different industries (based on publicly traded U.S. companies):

Industry / Sector	Ratio
Retail - Food & Beverage	
Grocery Stores (Overall)	15x
Perishable Goods (Baked Goods)	69.5x
Fruit & Vegetable Markets	29.1x
Gas Stations & Convenience Stores	24-37x
Retail - General	
Retail Average	9x
Automotive Parts	15-20x
Consumer Electronics	8-15x
Pharmacies	12-15x
Home Improvement	5-8x
Clothing & Accessories	4-6x
Department Stores	3-4x
Bookstores	3-4x
Manufacturing	
Manufacturing (General)	5-10x
Basic Materials	5.02x
Capital Goods	2.44x

Note: These benchmarks are based on data from publicly traded U.S. companies. Top-performing companies often achieve ratios significantly higher than industry averages.