



*Methodology of Calculating  
Inventory  
Carrying  
Costs*



20 NASSAU STREET, SUITE 244  
PRINCETON, NEW JERSEY 08542

*REM Associates*



## *Contents*

- The Truth About Carrying Inventory
- What Makes Up Inventory Carrying Costs?
- Inventory Carrying Cost Summary
- Inventory Carrying Costs Studies

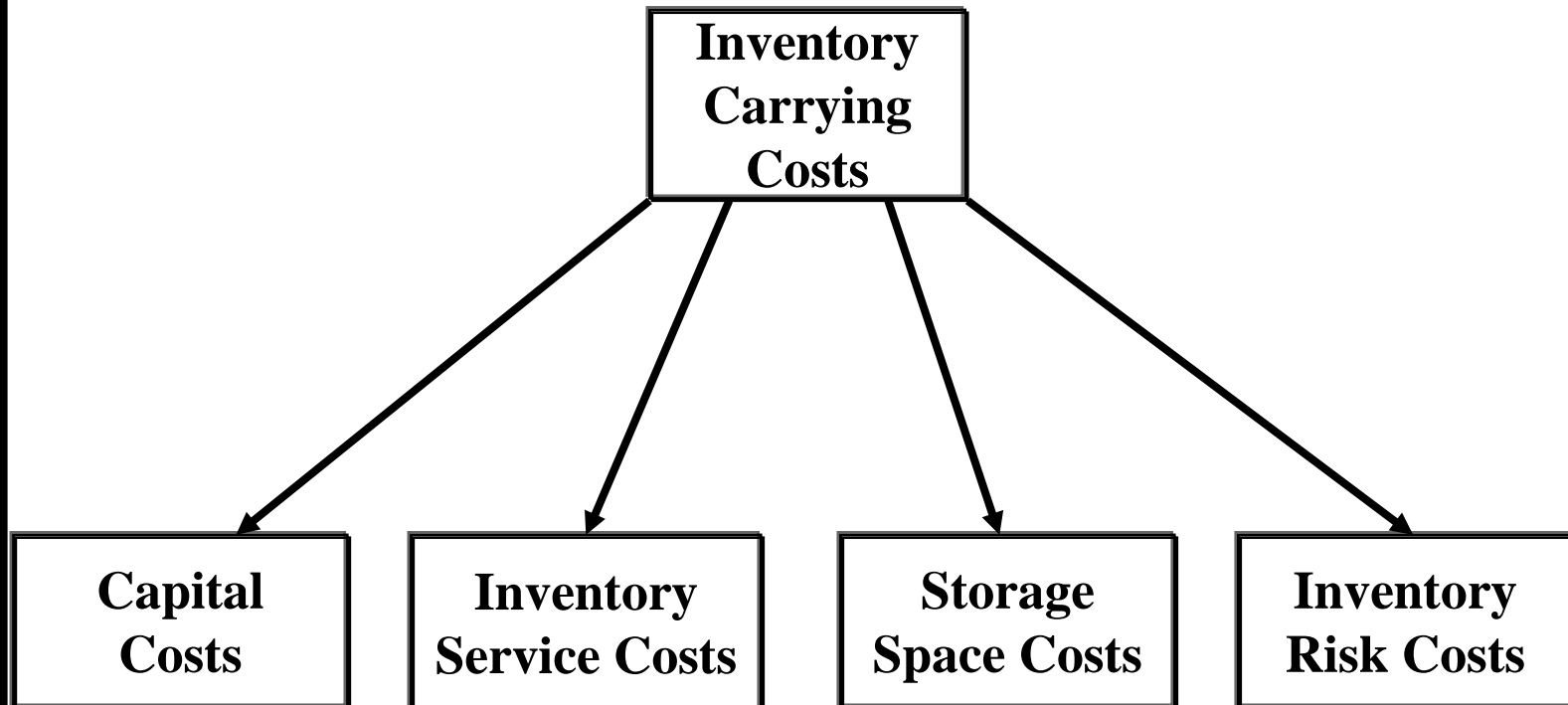
## *The Truth About Carrying Inventory*

*Studies of industries about inventory carrying costs reveal the following . . . .*

- Over 65% of most companies do not compute inventory carrying costs, they use rough estimates
- Leading logistics experts place the cost of carrying inventory between 18% per year and 75% per year depending on the type of products and business
- The standard “rule of thumb” for inventory carrying cost is 25% of inventory value on hand
- The cost of capital is the leading factor in determining the percentage of carrying cost

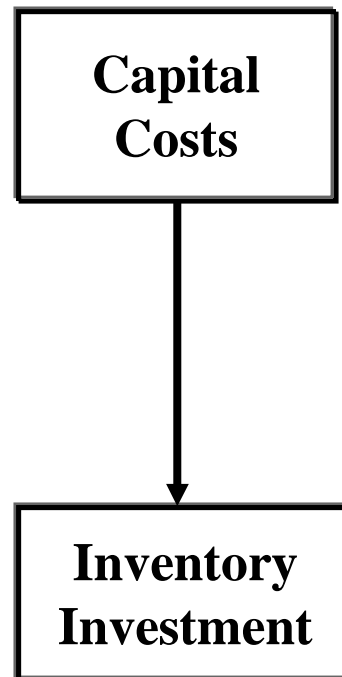
## *What Makes Up Inventory Carrying Costs?*

*Inventory carrying costs are made up of the following . . . .*



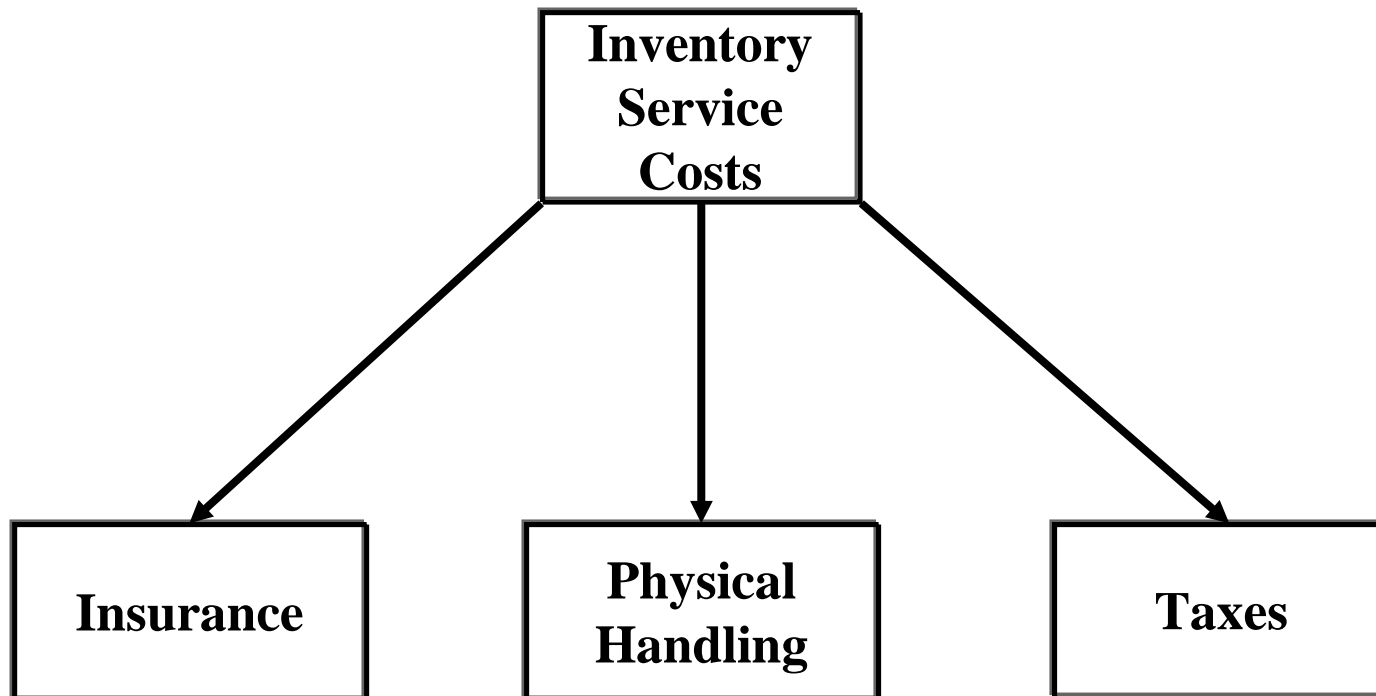
## *What Makes Up Inventory Carrying Costs?*

*Capital costs include the investment in inventory . . . .*



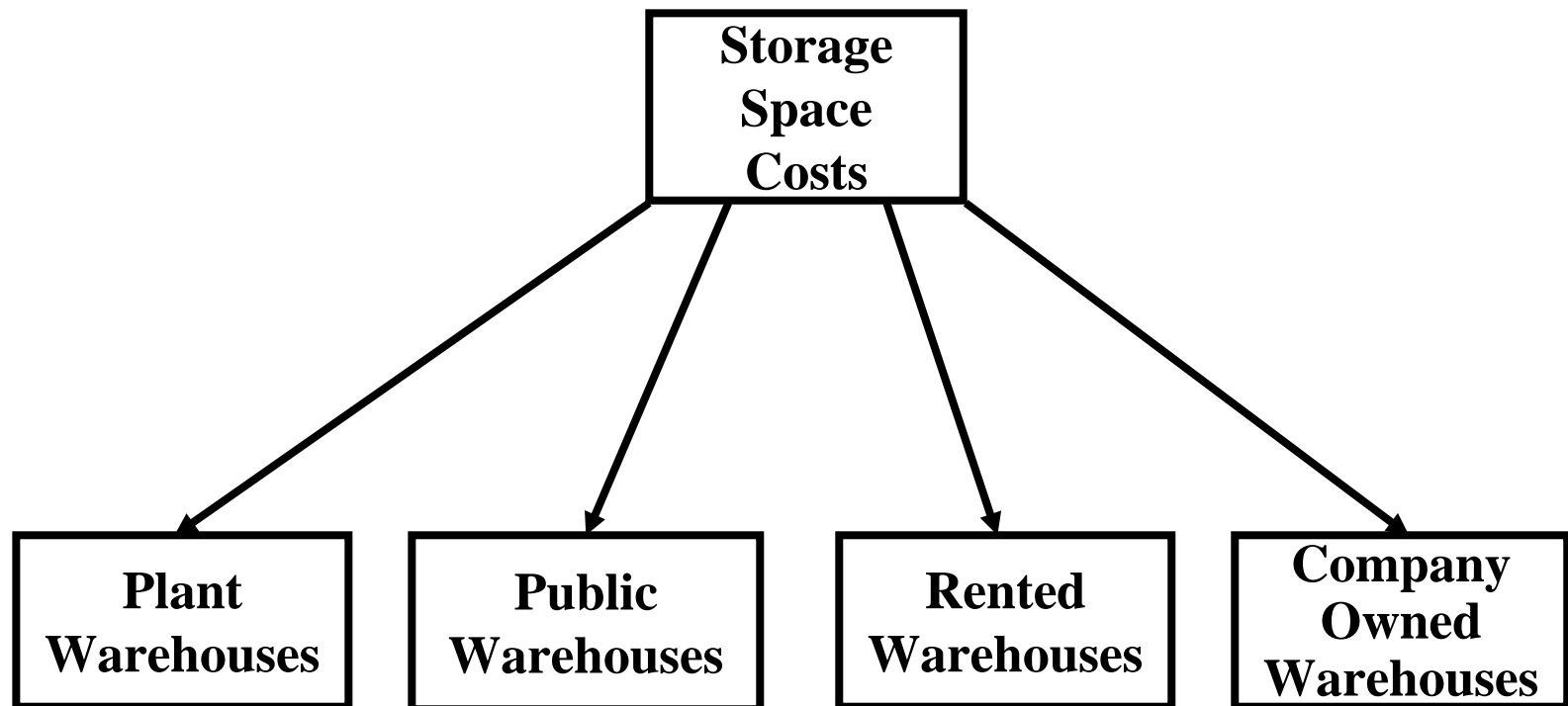
## *What Makes Up Inventory Carrying Costs?*

*Inventory service costs include insurance, physical handling, and taxes . . . .*



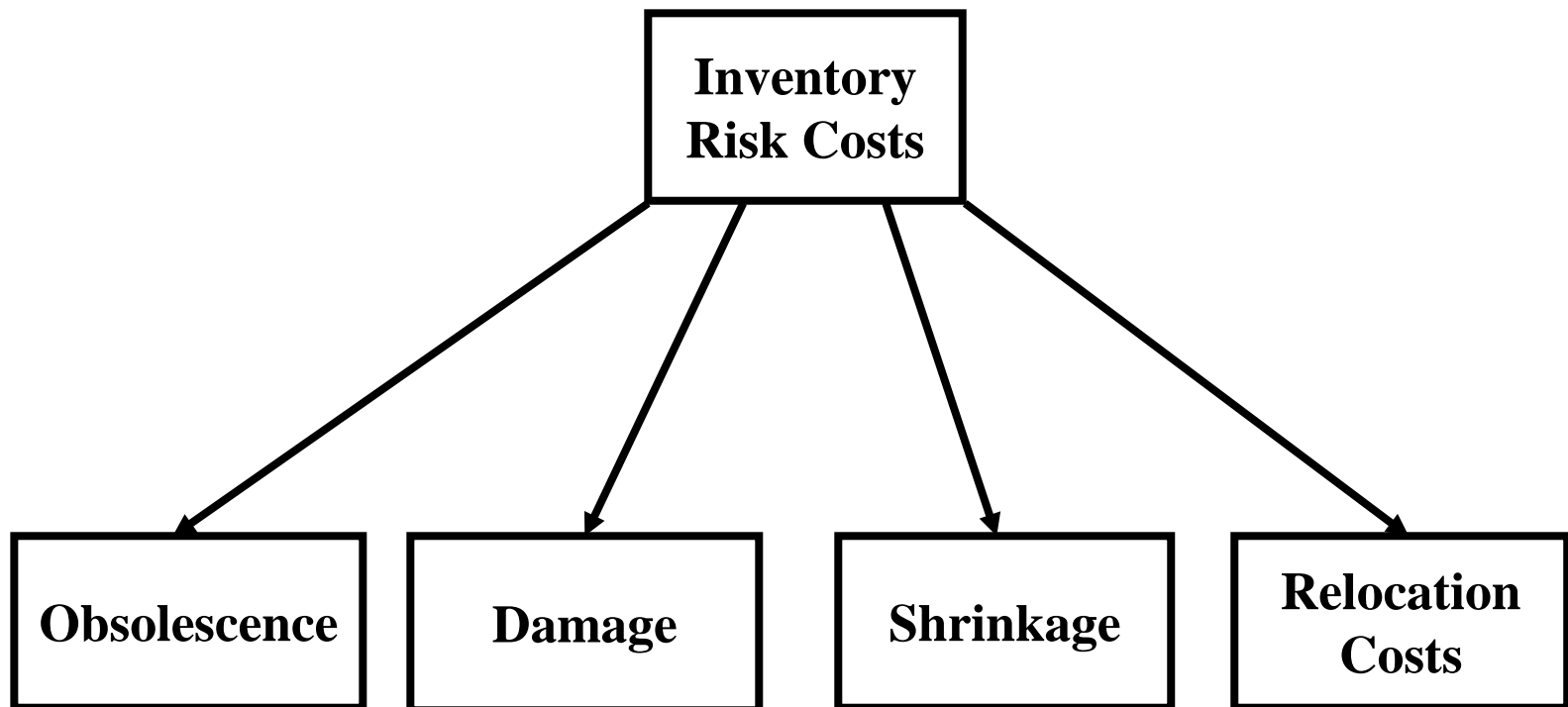
## *What Makes Up Inventory Carrying Costs?*

*Storage space costs include public, plant, rented, and company owned warehouses . . . .*



## *What Makes Up Inventory Carrying Costs?*

*Inventory risk costs are made up of obsolescence, damage, shrinkage, and relocation costs. . . .*





## *Inventory Carrying Costs In Summary*

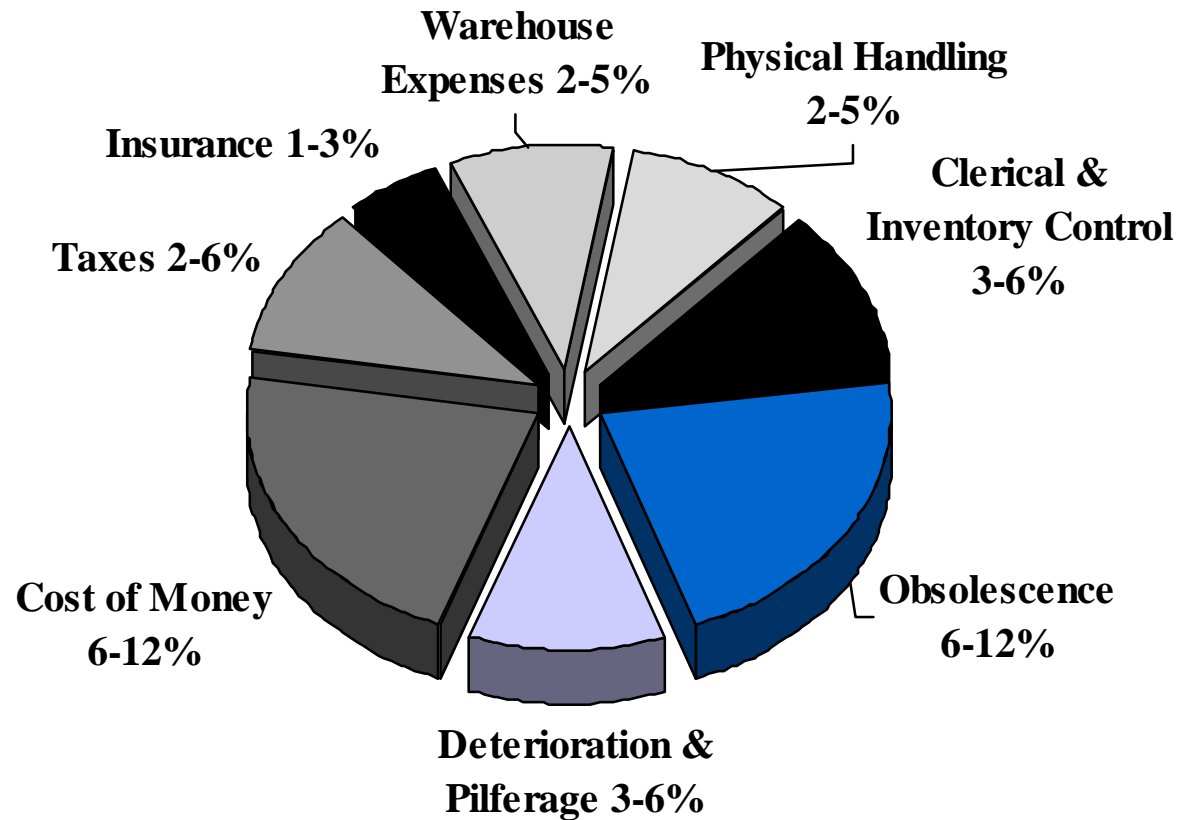
*Total inventory carrying costs can be estimated at . . . .*

■ Cost of Money	6% - 12%
■ Taxes	2% - 6%
■ Insurance	1% - 3%
■ Warehouse Expenses	2% - 5%
■ Physical Handling	2% - 5%
■ Clerical & Inventory Control	3% - 6%
■ Obsolescence	6% - 12%
■ Deterioration & Pilferage	3% - 6%
<b>Total</b>	<b><u>25% - 55%</u></b>

*Richardson, Helen: Transportation & Distribution, "Control Your Costs then Cut Them" December, 1995*

# *Inventory Carrying Costs In Summary*

*Total inventory carrying costs can be broken down by . . . .*



# *Inventory Carrying Costs Studies*

## *Inventory Management Perspective . . . .*

- CLM Conference attendees identified the management of inventory as the top priority in the next several years. The conference referred to Logistics, as inventory in motion.
- Inventory is money and many companies assess an inventory carrying cost of 2% per month.

*Inventory Reduction Report, December 1994*

# Inventory Carrying Costs Studies

**Textbook inventory carrying costs are suspect. Inventory carrying costs should not always be based on industry averages. Inventory carrying costs should be calculated by business. That being said the following estimates of inventory carrying costs from Strategic Logistics Management, 2nd edition, 1987, James R. Stock and Douglas M. Lambert, Irwin, Homewood, Illinois, can be used as rules of thumb only:**

Author	Publication	Estimate of Carrying Costs as a % of Inventory Value
L.P. Alford & John R. Bangs (eds.)	<i>Production Handbook</i> , (New York: Ronald Press, 1955) p. 397.	25%
George W. Aljian	<i>Purchasing Handbook</i> , (New York: McGraw-Hill, 1958), pp. 9-29.	12-34%
Dean S. Ammer	<i>Materials Management</i> , (Homewood, Ill.: Richard D. Irwin, 1962), p. 137.	20-25%
Donald J. Bowersox, David J. Closs and Omar K. Helferich	<i>Logistics Management</i> , 3rd ed., (New York: Macmillan, 1986), pp. 189-97.	20%*
Joseph L. Cavinato	<i>Purchasing and Materials Management</i> , (St. Paul, MN.: West Publishing, 1984), p. 284.	25%
J.J. Coyle and E. J. Bardi	<i>The Management of Business Logistics</i> , 3rd ed. (St. Paul, MN.: West Publishing, 1984), p. 144.	25-30%
Gordon T. Crook	"Inventory Management Takes Teamwork," <i>Purchasing</i> , March 26 1962, p. 70.	25%
Thomas W. Hall	"Inventory Carrying Costs: A Case Study," <i>Management Accounting</i> , January 1974, pp. 37-39	20.4%
J. L. Heskett, N.A. Glaskowsky, Jr., and R. M. Ivie	<i>Business Logistics</i> , 2nd ed. (New York: Ronald Press, 1973), p. 20.	28.7%
James C. Johnson and Donald F. Wood	<i>Contemporary Physical Distribution and Logistics</i> , 3rd ed. (Tulsa, OK.: PenWell Publishing, 1986), p. 253.	25%
John F. Magee	"The Logistics of Distribution," <i>Harvard Business Review</i> , July-August 1960, p. 99.	20-35%
Benjamin Melnitsky	<i>Management of Industrial Inventory</i> (Conover-Mast Publication, 1951), p. 11.	25%
Thomson M. Whitlin	<i>The Theory of Inventory Management</i> , (Princeton, NJ.: Princeton University Press, 1957), p. 220.	25%

\* Not specified, although 20 percent was used in examples.



**MANAGEMENT CONSULTANTS**

**20 Nassau Street, Suite 244  
PO Box 7345  
Princeton, New Jersey 08543-7345  
Phone: 609-275-4444  
Fax: 609-275-5651  
E-Mail: [rem@remassoc.com](mailto:rem@remassoc.com)  
www: <http://www.remassoc.com>**

*REM Associates*