



*Forest Resource Management and Timberland Services*

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# What Happened to Industrial Timberland?

## *The Shift from Manufacturing to Investment*

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Wisconsin Society of American Foresters  
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## Overview

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- What?
- When?
- Who?
- Why?
- How?
- Where?
- So what?



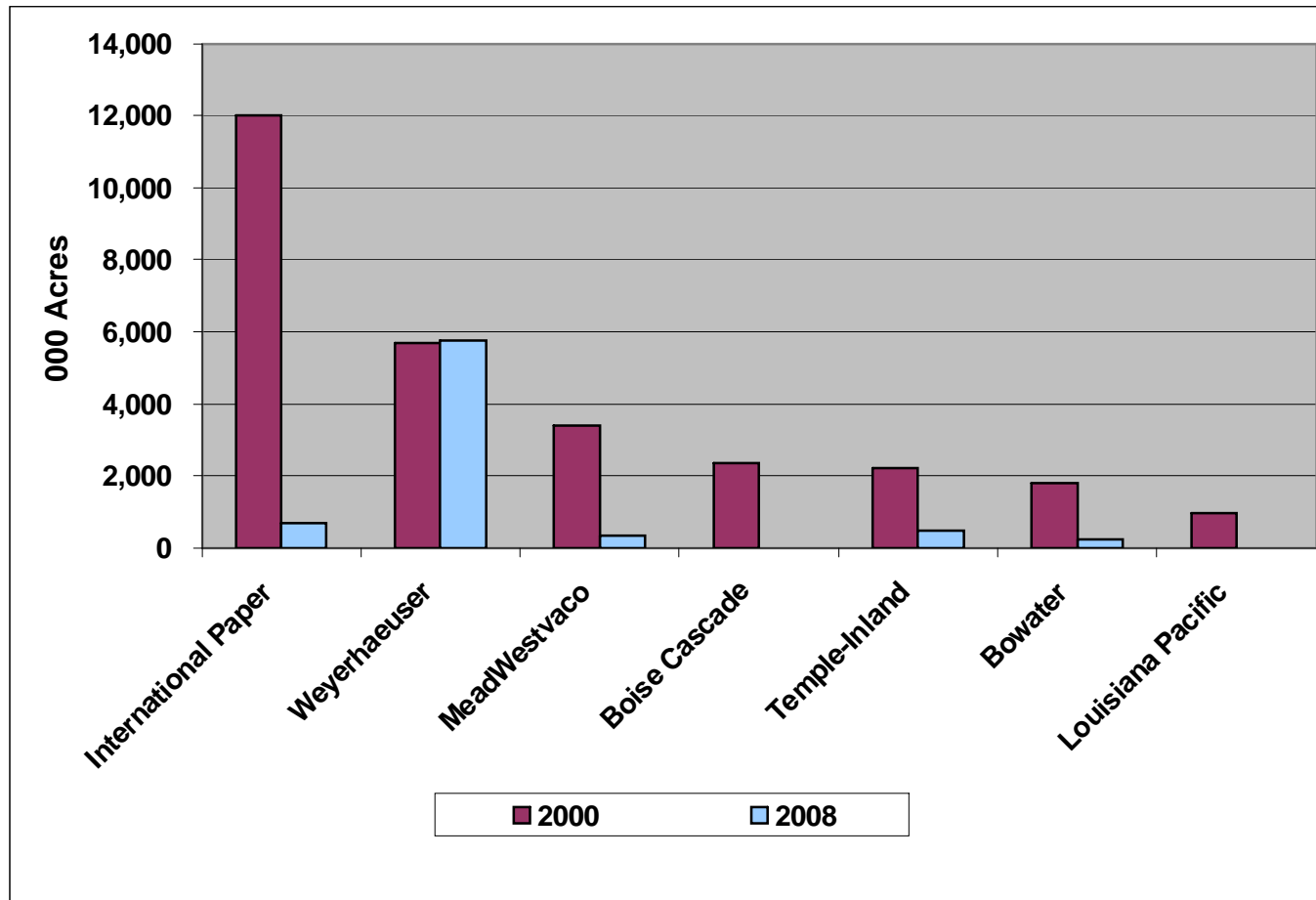
## What?

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- Ownership of US industrial forests has almost completely shifted from large forest products corporations to pure timber investment-oriented buyers
- Since 1996, forest products corporations have shed 38 million acres of timberland
- Only one major corporate owner remains

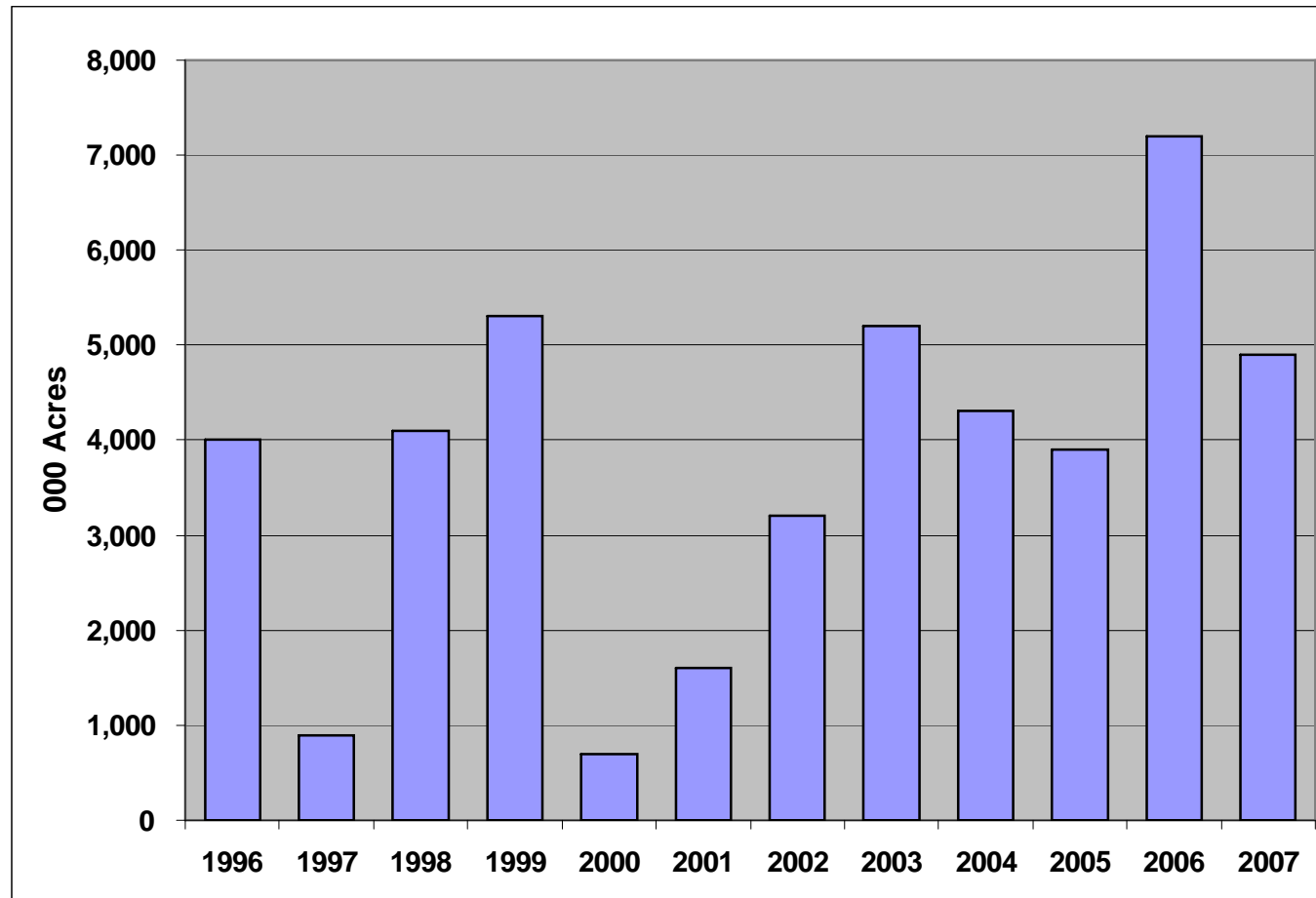


# Timberrrr!





## When? Acres Sold 1996-2007



SOURCE: Timberland Markets Report (RISI)



## Who are the buyers?

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- Timber Investment Management Organizations (TIMO's)
  - largest group of acquirers
  - intermediary for institutional investors
  - typically pure equity investors
- Real Estate Investment Trusts (REIT's)
  - publicly traded
  - more common in commercial real estate; only three timber REITS
- Private Investors
  - experienced in timber business
  - may be highly leveraged
- Conservation Groups (TNC, TCF, TPL, etc.)
  - may buy directly or in concert with timber investor
  - may hold easement or sell to state government
  - facilitated by federal Forest Legacy program



# Who? Major Owners Then and Now

(million acres)

1979		1995		2000		2007	
International Paper	8.4	Georgia Pacific	6.0	International Paper	12.1	Plum Creek**	8.3
Weyerhaeuser	5.9	International Paper	5.9	Plum Creek**	7.9	Weyerhaeuser	6.7
Georgia Pacific	4.5	Weyerhaeuser	5.6	Weyerhaeuser	5.7	Hancock*	3.3
St. Regis Paper	3.2	Champion International	4.5	Boise Cascade	2.3	The Forestland Group*	2.8
Champion International	3.1	Bowater	3.7	Rayonier***	2.2	Forest Investment Associates*	2.8
Scott Paper	2.9	Boise Cascade	2.7	Hancock*	2.2	Resource Mgmt Services*	2.5
Great Northern Nekoosa	2.7	Plum Creek***	2.0	Mead	2.1	Forest Capital Partners*	2.1
Boise Cascade	2.7	Temple-Inland	1.9	Willamette	1.7	Rayonier**	2.0
Crown Zellerbach	2.1	Louisiana Pacific	1.6	Temple-Inland	1.7	Campbell Group*	2.0
Union Camp	1.7	Potlatch***	1.5	JD Irving	1.6	Wagner Forest Management*	1.9
<u>37.1</u>		<u>35.4</u>		<u>39.6</u>		<u>34.4</u>	

\* TIMO

\*\* REIT

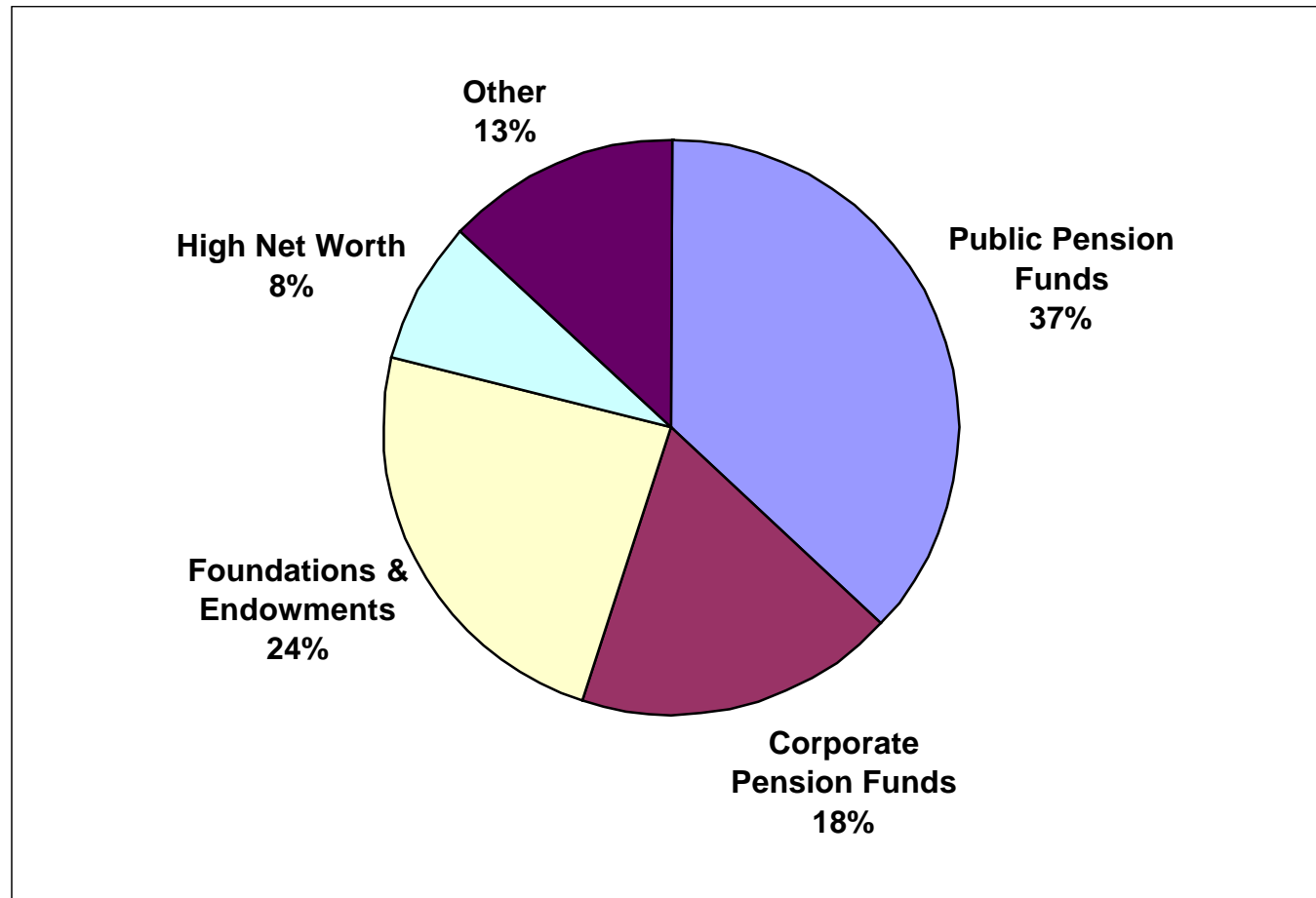
\*\*\* would later convert to REIT

SOURCES: Timberland Markets Report (RISI), Timber Mart South, The Sampson Group, Inc.



## Who invests with TIMO's?

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SOURCE: TimberLink



## Who? Industry Structure

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- Investors
  - pension fund consultants - portfolio targets
  - timber investment consultants - manager selection, auditing
- TIMO's
  - fund raising
  - deal sourcing, bidding and negotiation
  - use of outside appraisers and consultants
    - due diligence on acquisitions
    - ongoing property management\*
    - asset tracking, valuation and accounting
- REIT's
  - most functions performed in-house
  - capital markets for fund-raising
  - managers, not fiduciaries



## Why?

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- Sellers (integrated forest products C-corps)
  - Wall Street pressure to improve returns -- timberland sales provide capital for higher return investments, debt reduction, shareholder return
  - Tax laws create double taxation and eliminate cap gains treatment of timber income
  - GAAP prevents reporting of unrealized gains
  - Management sometimes sub-optimized to support mills
- Buyers (pure timber investors)
  - Employee Retirement Income Security Act (ERISA) 1974 mandated diversification of pension portfolios
  - Tax exempt (TIMO's) or tax-advantaged (REIT's) status
  - Timberland investment characteristics fit portfolio needs



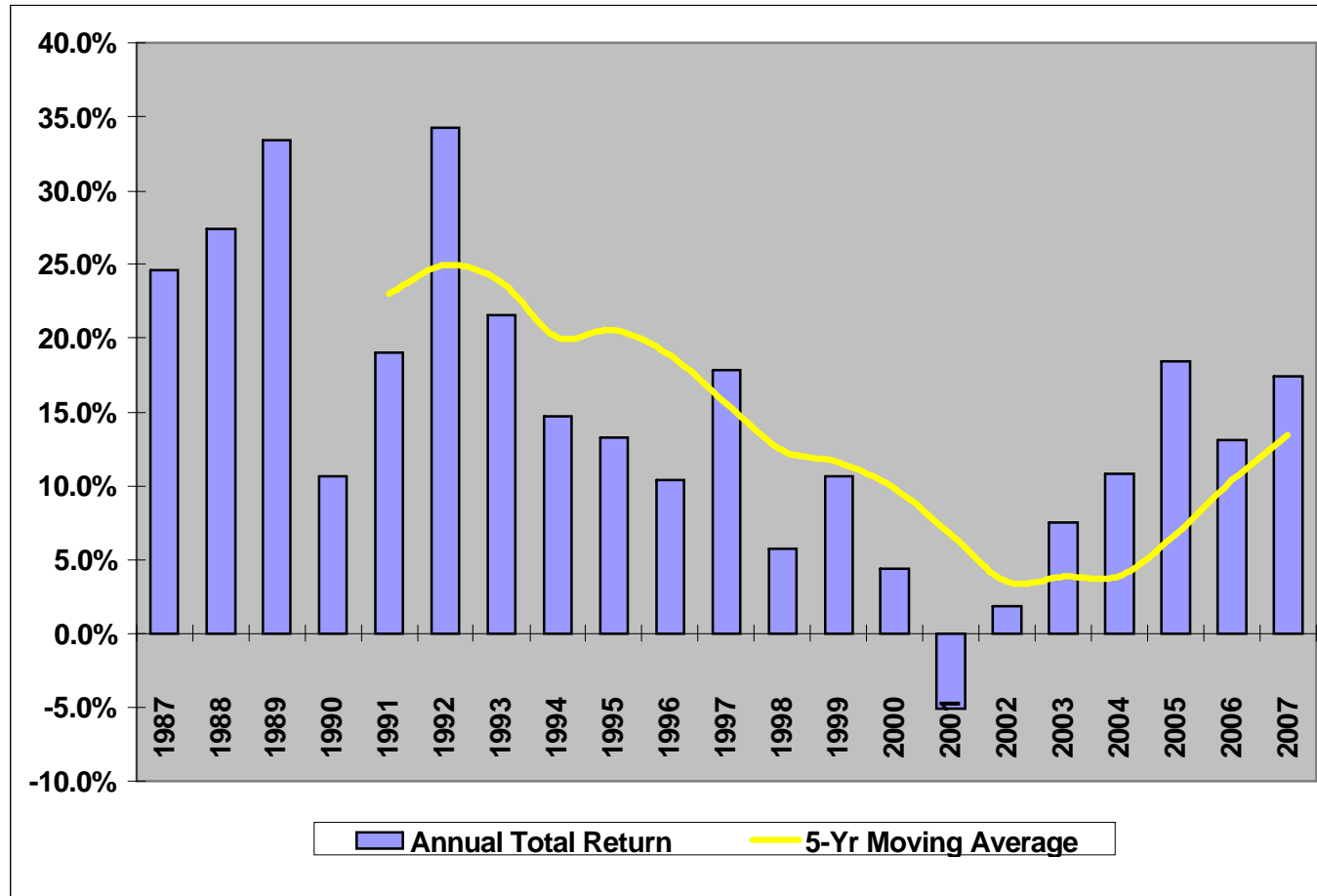
## Why? Investment Characteristics

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- Return on investment
- Risk/return profile
- Non-correlation with other investment types
- Inflation hedge



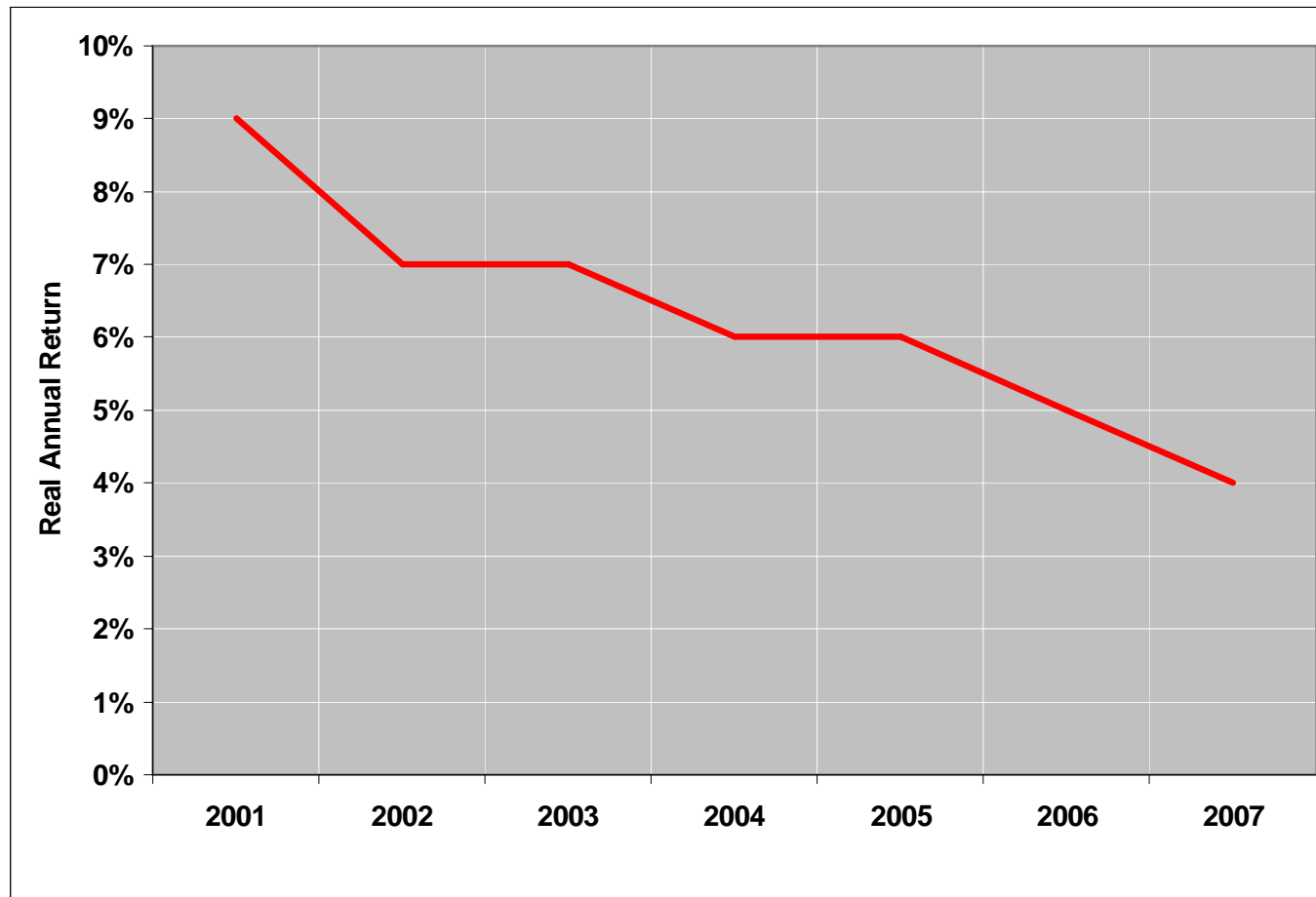
## Why? Steady Returns



SOURCE: NCREIF



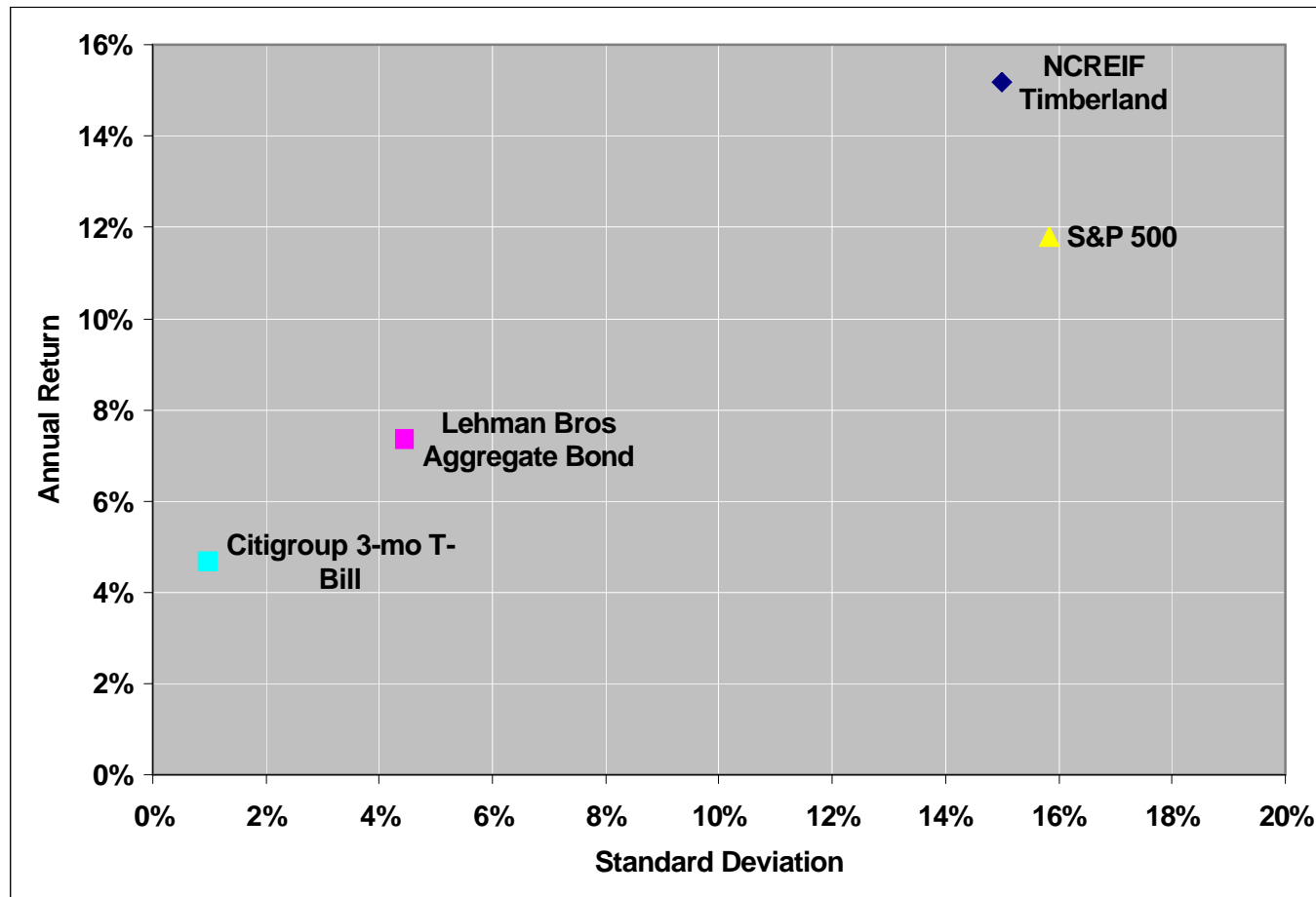
## Investors Increasingly Willing to Accept Lower Returns



SOURCE: Timberland Markets Report (RISI)



## Why? Risk/Return Profile



SOURCE: Standard & Poor's



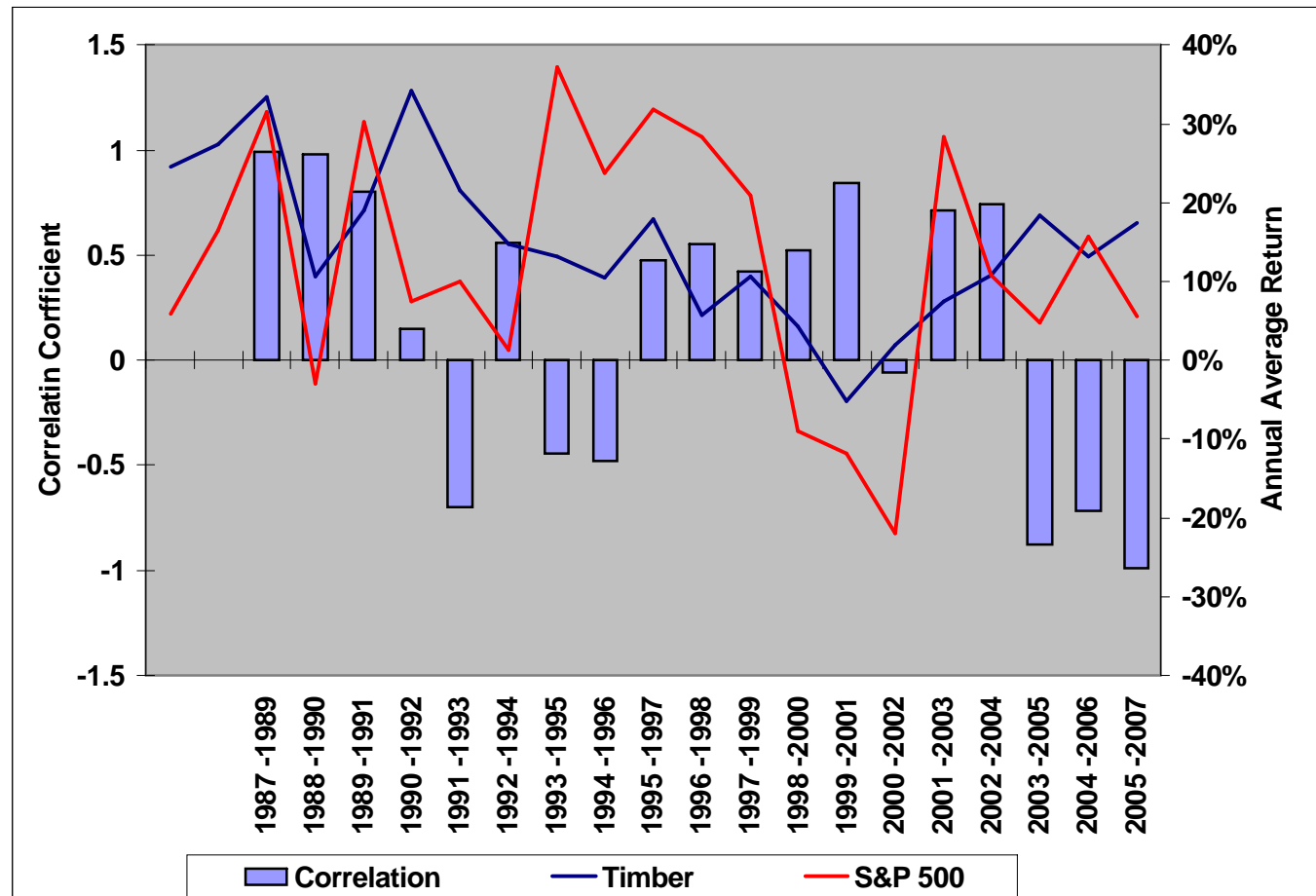
## Why? Non-Correlation with Financial Investments

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- Early research and TIMO sales pitch suggested negative correlation with stocks: "Timberland is a potent portfolio diversifier."
- More recent actual experience suggests mixed relationship
- At best, timberland appears to be uncorrelated with stocks over the long term, but may be highly correlated in short term



## 3-Year Period Correlation Coefficients





## Why? Inflation Hedge

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Press Release

September 10, 2007

SACRAMENTO, CA – The California Public Employees' Retirement System (CalPERS) took the first step today toward establishing a formal focused **inflation-linked asset class** that would include an allocation of up to \$2.5 billion...

**"Investing in forests is an important move to guard against inflation** and the management practices are essential to make sure our assets are standing for generations to come," said Russell Read, chief investment officer for CalPERS.



## How to invest?

	Wholesale		Retail		
	Separate Account	Fund	REIT	Timber Equities	Index Fund
Investment Size	++	+	-	-	-
Liquidity	-	--	++	++	++
Ability to Diversify	-	++	-	-	+
Investment Control	++	-	--	--	--
Investment Fees	-	--	++	++	++
Customization	++	-	--	--	--
Tax Treatment	+	+	+	--	--



## How are investments structured to solve seller and buyer problems?

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- Wood supply agreements to seller
  - 10-50 years
  - pricing mechanism
  - stumpage or delivered wood
  - provides supply security to mill, and guaranteed market to landowner
  - may have certification and/or subdivision restrictions
  - supply agreements run with the land
- Conservation easements to monetize HBU value
  - management standards
    - specific to easement
    - certification as proxy
  - public access
  - subdivision/development
  - most fully priced at appraised values; taxable sellers may donate



## Where?

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- South & PNW led the way in early 90's
  - focus on softwood plantations almost exclusively
  - easy model for investors to understand
  - intensive management regimes and high ROI's
  - data-rich (growth & yield, prices)
  - abundant deal opportunities
- Northeast (Maine)
  - TIMO industry is Boston-based
  - large private ownerships abundant
  - low bare land prices
- Lake States, Mid-Atlantic last in line
  - hardwoods not as well understood
  - "data-poor"
  - limited universe of deals



## Lake States Large Transactions

Year	Seller	Buyer	Acres	\$/Acre	Cumulative Acres Conveyed to Investors
1998	Tigerton Lumber	TLC Acquisitions	49,729	\$985	49,729
1999	<b>Packaging Corp America</b>	Tomahawk Timberlands et al	161,303	\$428	211,032
1999	<b>Mead</b>	The Forestland Group	78,014	\$439	289,046
2001	Ned Lake Land & Timber	The Forestland Group	90,179	\$455	379,225
2002	<b>Stora Enso</b>	Plum Creek	308,770	\$460	687,995
2003	Kamehameha Schools	The Forestland Group	389,351	\$378	1,077,346
2005	<b>MeadWestvaco</b>	Cerberus	650,000	#N/A	1,727,346
2005	Escanaba Timber	Plum Creek	650,000	\$531	1,727,346
2005	<b>Boise Cascade</b>	Forest Capital Partners	308,000	#N/A	2,035,346
2006	<b>International Paper</b>	GMO	444,028	\$651	2,479,374
2006	<b>Potlatch REIT Conversion</b>		312,000	#N/A	2,791,374
2006	<b>International Paper</b>	Forest Investment Assoc / Conservation Forestry	69,337	\$1,226	2,860,711
2007	Tomahawk Timberlands	Potlatch	76,315	\$845	2,960,090
2007	Plum Creek	The Forestland Group	99,379	\$704	2,960,090



## Where will future deals be made?

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- Investor entities trading among each other
  - Timberstar → Hancock (900,000 acs)
  - Plum Creek → TFG (99,000 acs)
  - Wagner → TFG (590,000 acs)
- International investments
  - Canada
  - New Zealand
  - Australia
  - Brazil
  - South Africa
  - Chile
  - Uruguay
  - Latvia



## So What? Implications

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- Forester employment
  - large corporations employed more foresters per acre
  - compensation usually higher
- Forest certification
  - corporations invented and favored SFI
  - new investors seem to favor FSC, if any
- Fragmentation
  - slow process, but inevitable?
  - conservation easements address problem
  - the higher the price, the more likely is parcelization



## So What? Implications

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- Management intensity
  - increased emphasis on cost control
  - fund life can have impact
  - TIMO's take both intensive and passive approaches
- Timber supply
  - company-owned wood had been the cheapest source
  - investor class motivated to time harvest with markets
  - management intensity and fragmentation are issues for long term supply
- Forestry R&D
  - the investor class supports R&D less than forest products corporations
  - loss of input to research agenda could trickle into curriculum decisions



## Contact

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