

State of the North American Pulp & Paper Industry



Review In Brief ~ The Industry Context

~ Q2 2007 Data ~

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Center for Paper Business and Industry Studies (CPBIS)

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Overview

North American Forest Products Industry Review ~ *The Industry Context*

Where Are We?

Financial Performance

Outlook ~ How Competitive

Outlook ~ The Economy

Key Takeaways

Final Thoughts

Where Are We?

Brief NA Industry ~ Commentary

Volume Trends

Price Trends

Where Are We?

North American Industry Context ~

- Enjoys significant *fiber resources & logistics* . . .
- Competitiveness boosted by weaker U.S. dollar, *but is strained by aging assets* . . .
- Has enjoyed a moderate, cyclical upturn, but solid returns still lag & *volumes still struggling a bit* . . .
- With prices, and financial performance improved moderately in 2006-07 ~ *Stable to OK for 2007* . . .
Maybe will rebound a bit in 2008 ~ but 2008 = ?
- ...Many companies are now making moderate investments ~ *however the bigger spending is for private equity to acquire substantial industry assets* . . . **Stay Tuned!**

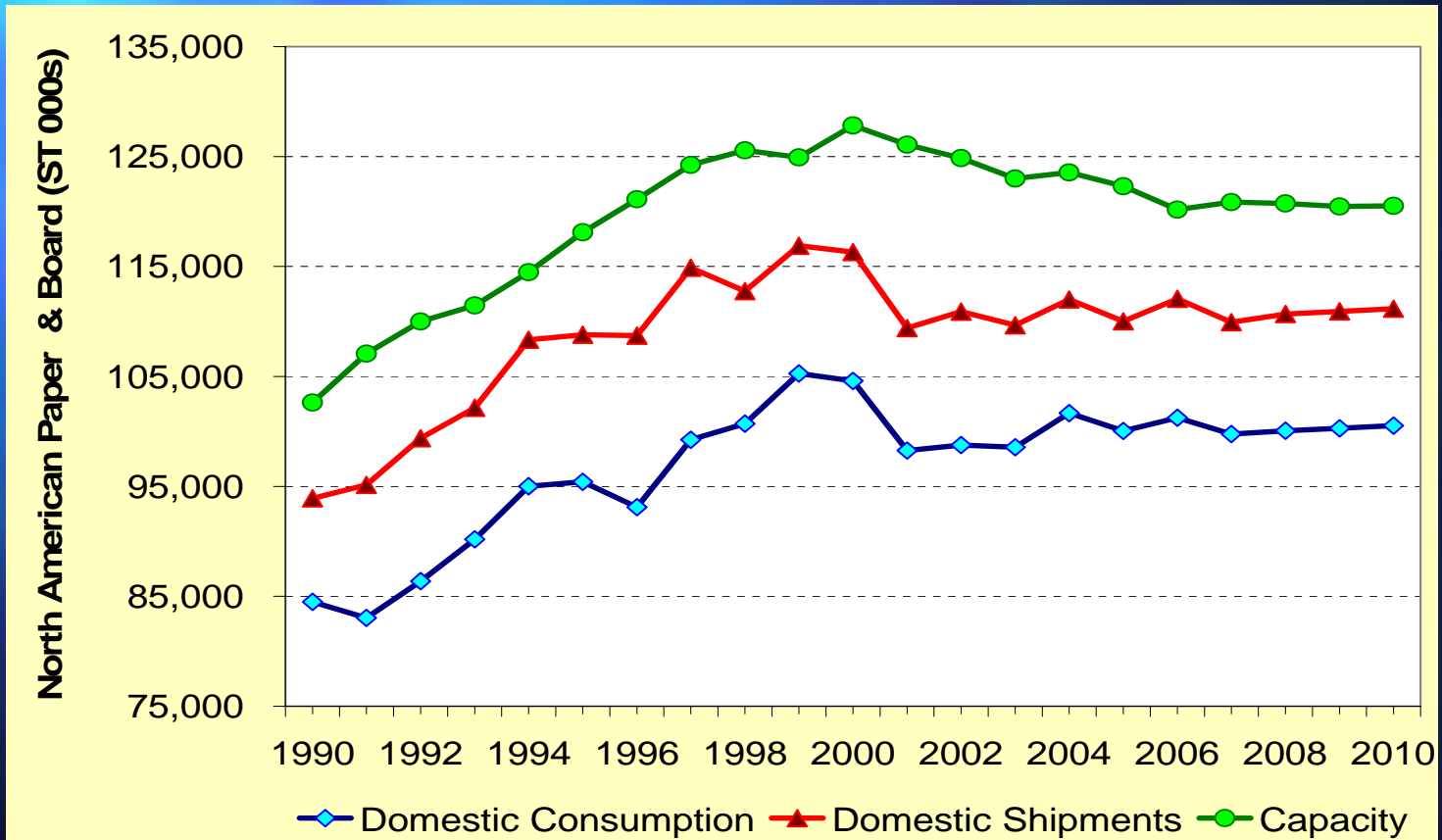
Where Are We?

North American Industry Context ~

- **Still a major player *in US and global economy***
- ***NA sector* still largest in the world ~ *supply & demand***
- ***Mature industry* ~ financially distressed**
- ***Organizational* structure in turmoil**
- ***Significant improvements* essential for survival & opportunity to reassert dominance**

Where Are We?

Volume Off 3-4% from 1999 Peak ~
But Rebounded A Bit As Of Late



Where Are We?

Volume Dropping ~ *Prices Mixed*

NA Grade	2007 YTD Change In NA Production	2007 YTD vs. 2006 Average Price
Printing & Writing	-1.6%	+1%
Boxboard	-1.2%	+2%
Containerboard	0.1%	+4%
Newsprint	-5.1%	-10%
Chemical Paper Grade Pulp	-2.5%	+10%

Where Are We?

Selected Current Prices Report ~ *Mixed Results*

Grade	Date	Latest	Year Ago	% Chg
50lb UFS (US\$/ton)	08/2007	\$994	\$937	+6%
60lb #3 CFS (US\$/ton)	08/2007	\$901	\$925	-3%
42# Kraft Liner (US\$/ton)	08/2007	\$510	\$490	+4%
30lb Newsprint (US\$/tonne)	08/2007	\$586	\$649	-10%
Pulp NBSK List (US\$/tonne)	08/2007	\$613	\$564	+9%

Financial Performance

Comparative Trends ~ Revenue & Profits

Return on Capital Employed & Debt

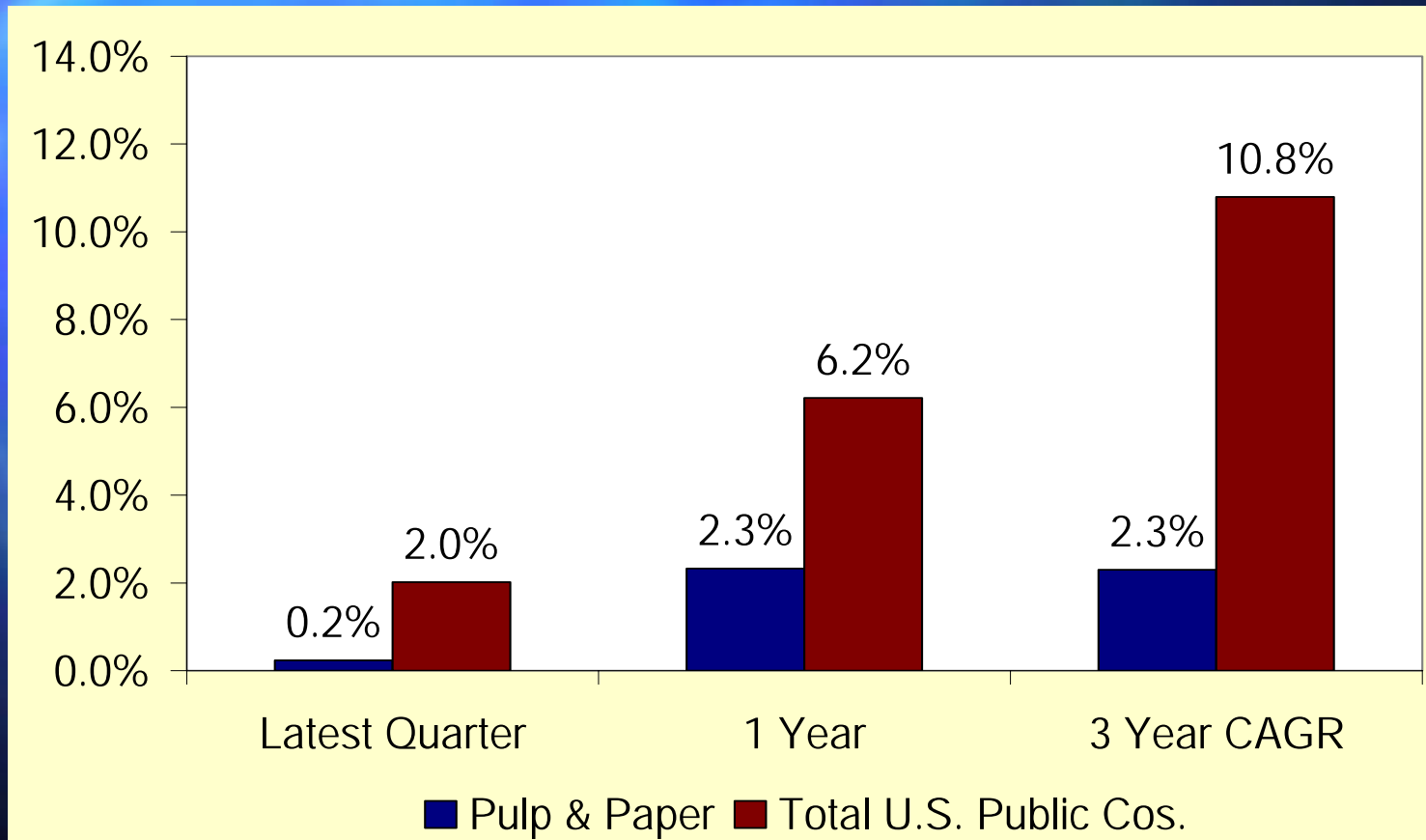
Investment Spending

Other Financial Measures

[Asset turnover, EBITDA, enterprise value, & role of intangibles]

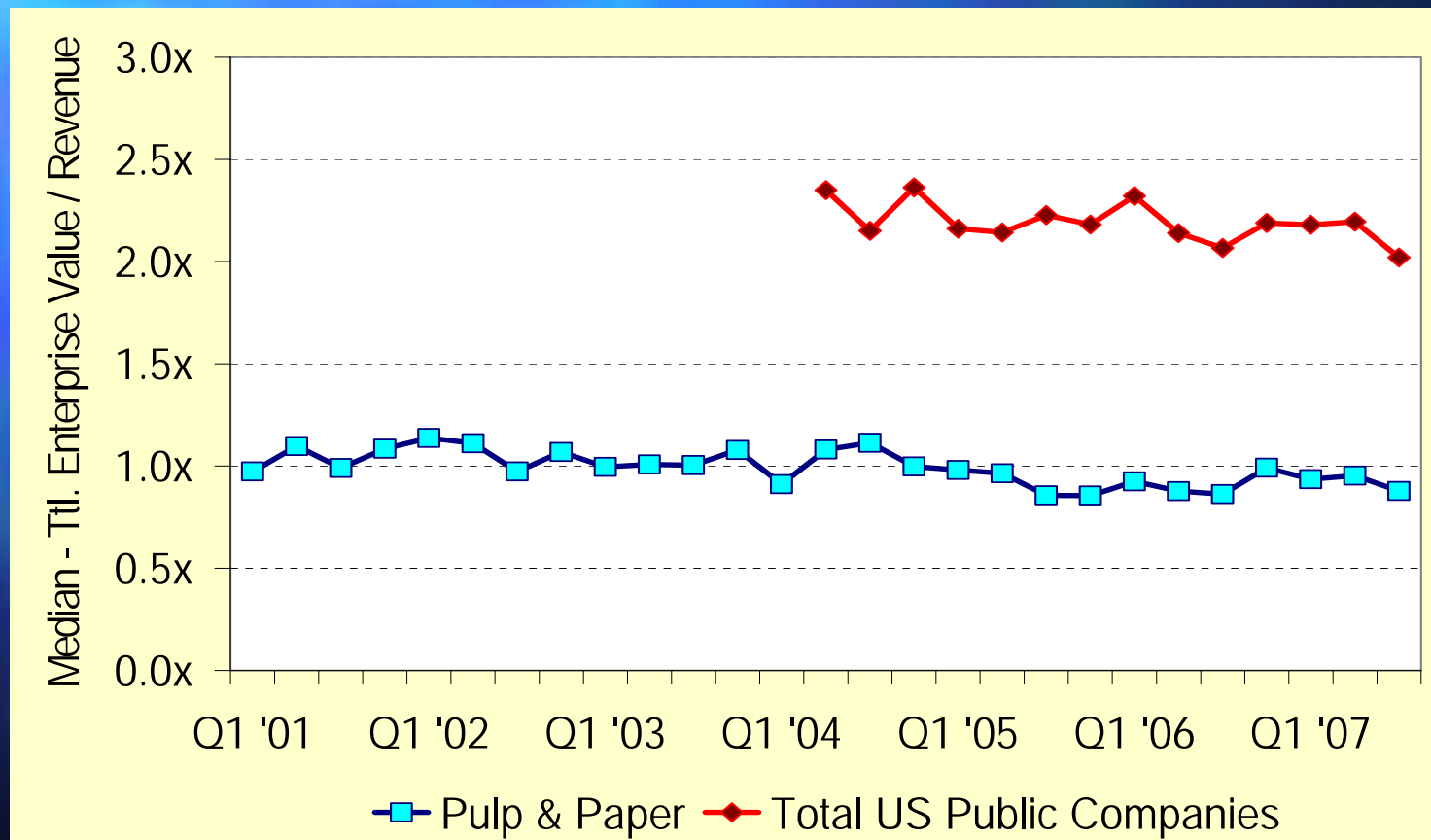
Financial Performance

Pulp & Paper *Revenue* Continues To Grow ~
But Significantly Lag The Total of US Companies



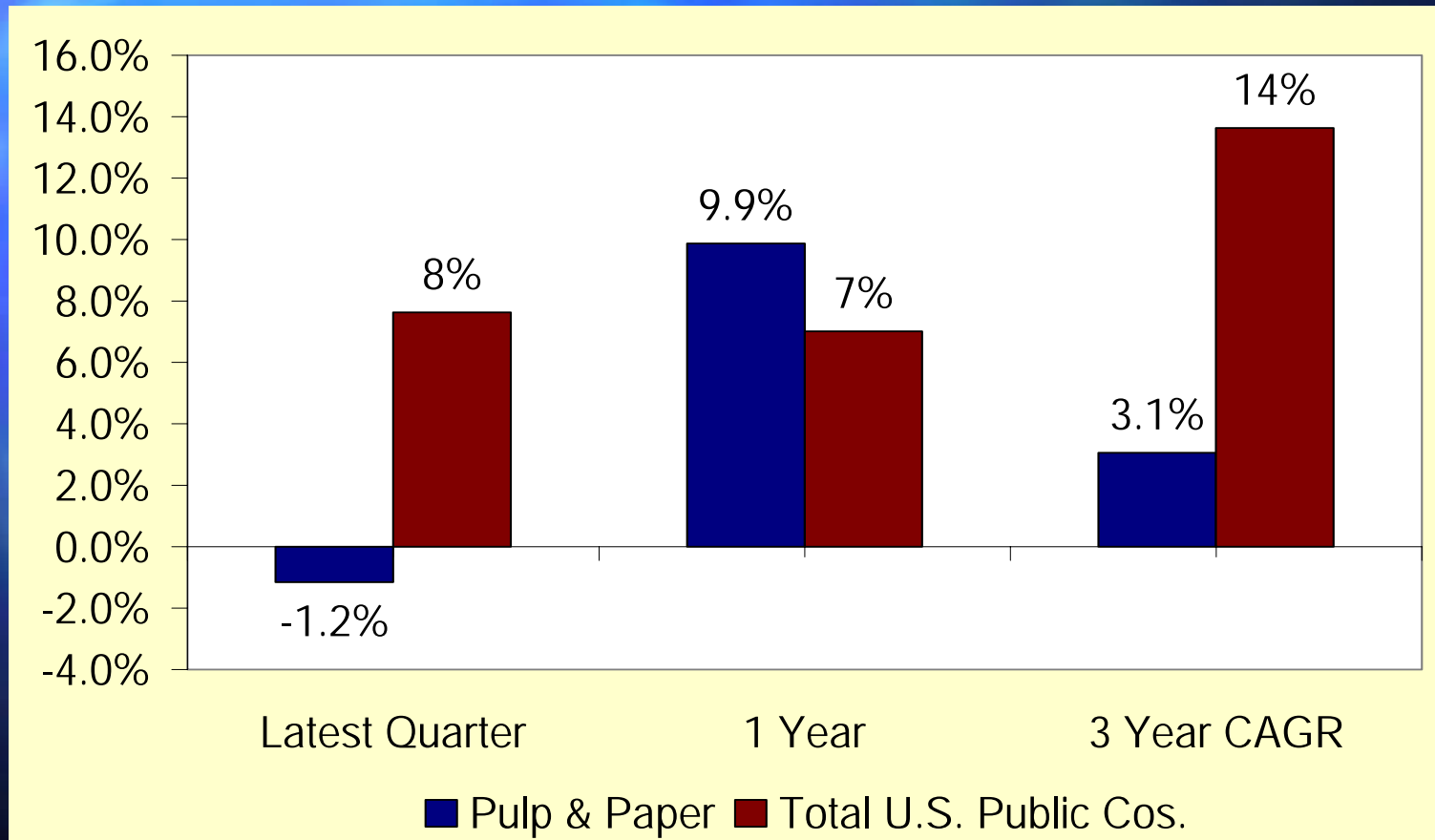
Financial Performance

Yet ~ *Revenue Multiple* ~ Pulp & Paper Valuations
Still Significantly Trail U.S. Public Companies



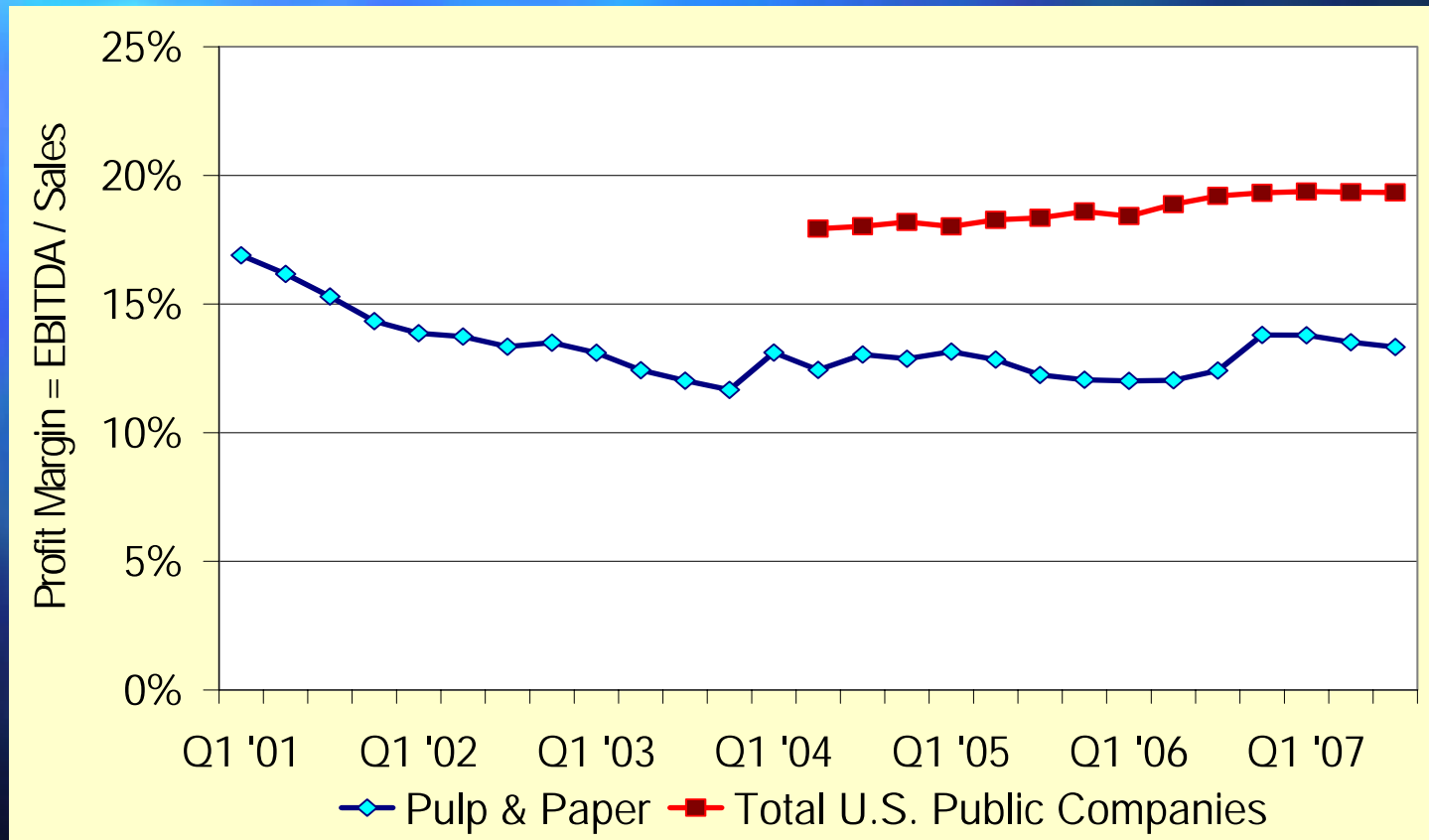
Financial Performance

Pulp & Paper *Profits* Falling After A Strong Year ~
Lag Total of US Companies In The Longer Term



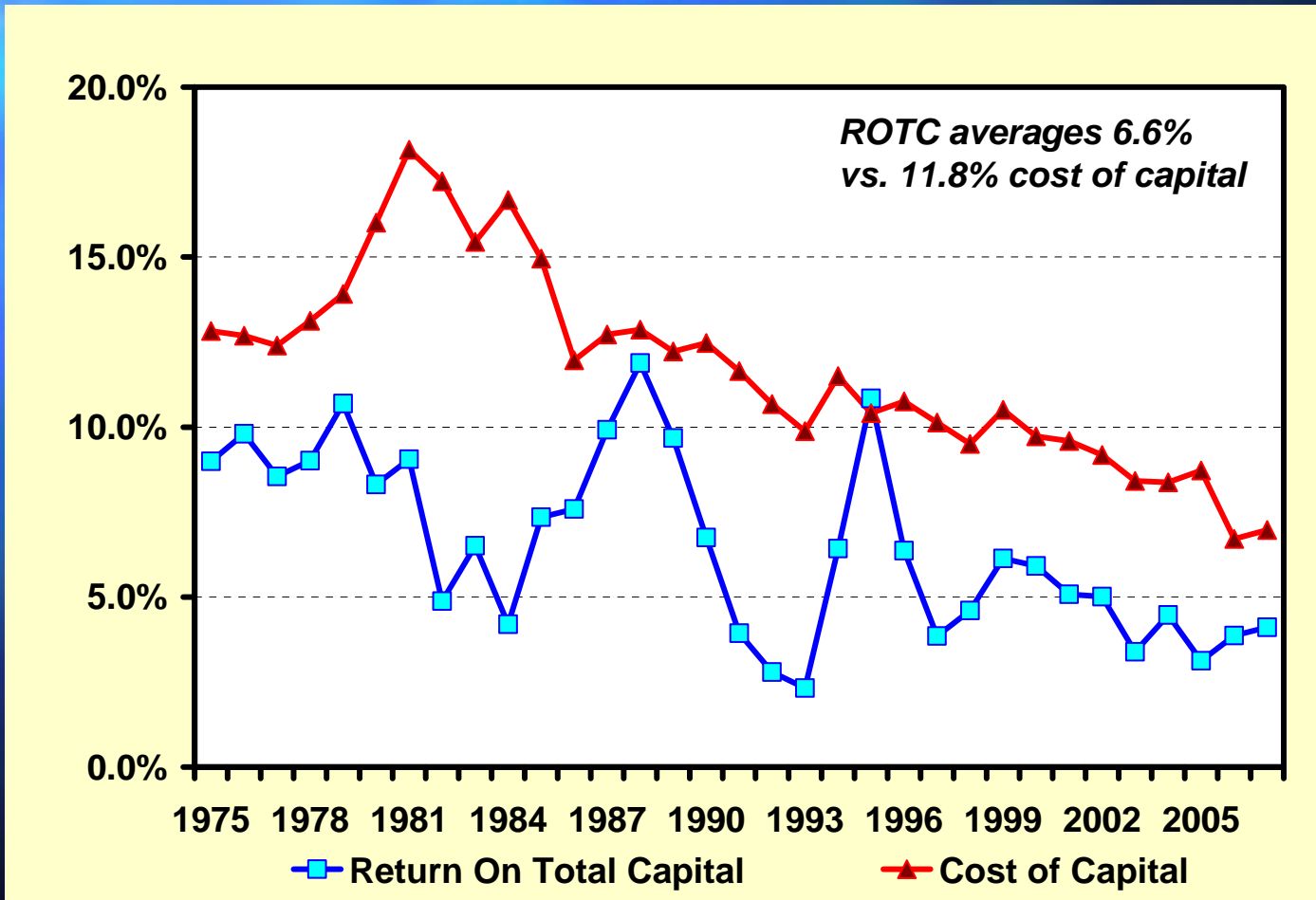
Financial Performance

Profit Margins Have Steadied After A Period Of Decline ~
But Are Still 6 Points Lower Than Total U.S. Companies



Financial Performance

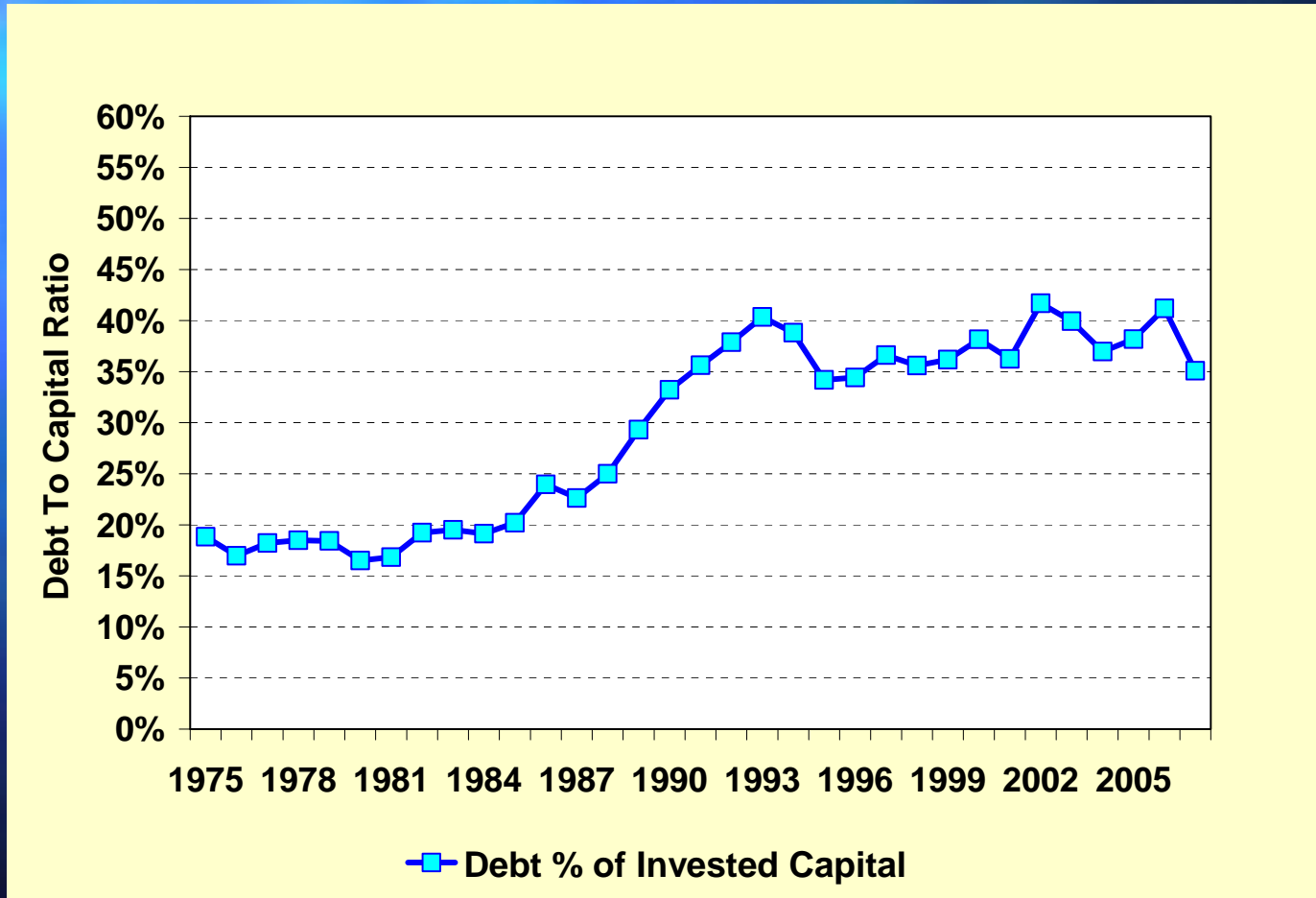
*Returns on Total Capital Employed ~
Consistently fall far short of Cost of Capital*



Financial Performance

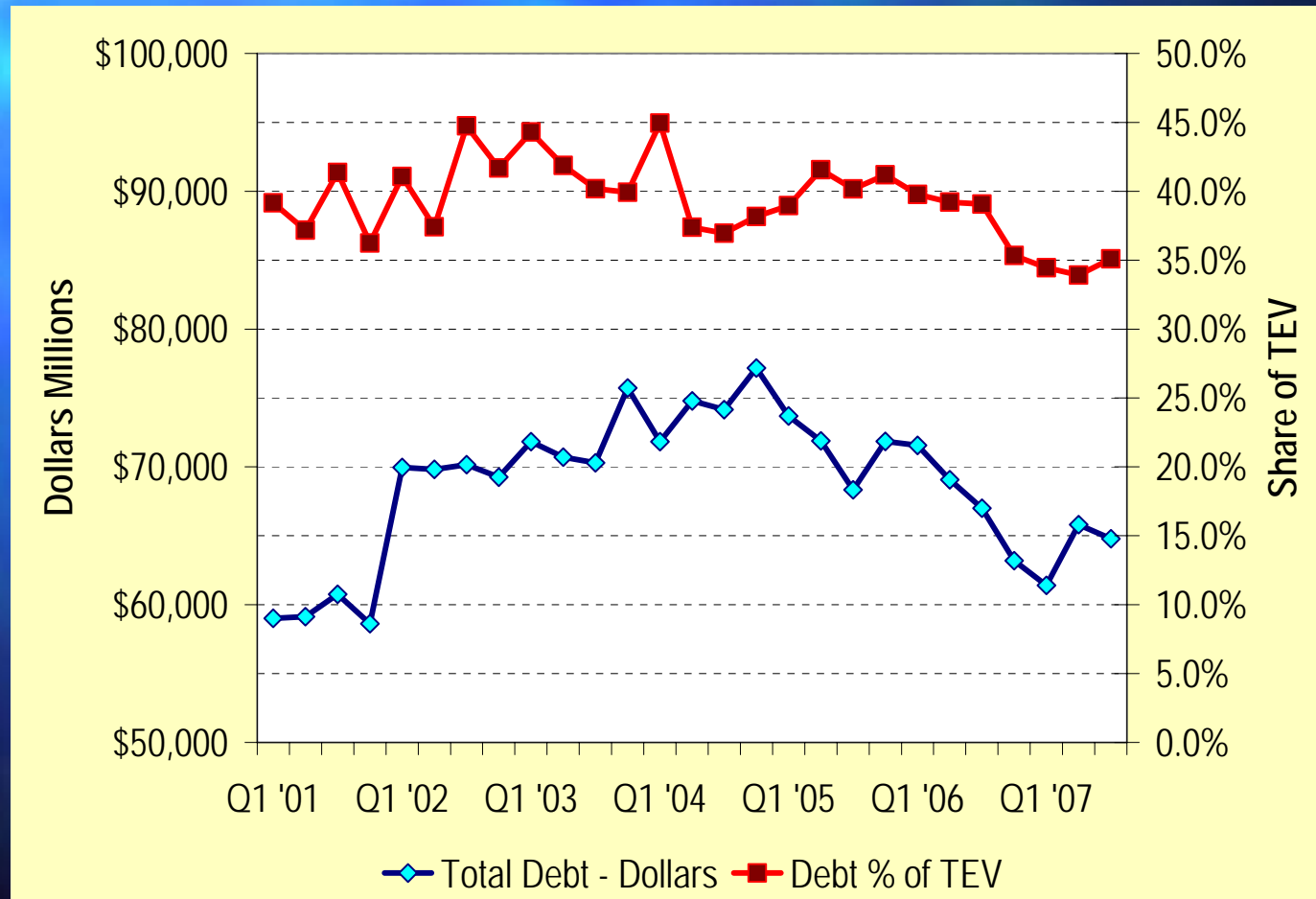
Increased *Debt Levels* Across Time ~

Significantly Limit Investment Opportunities & Flexibility



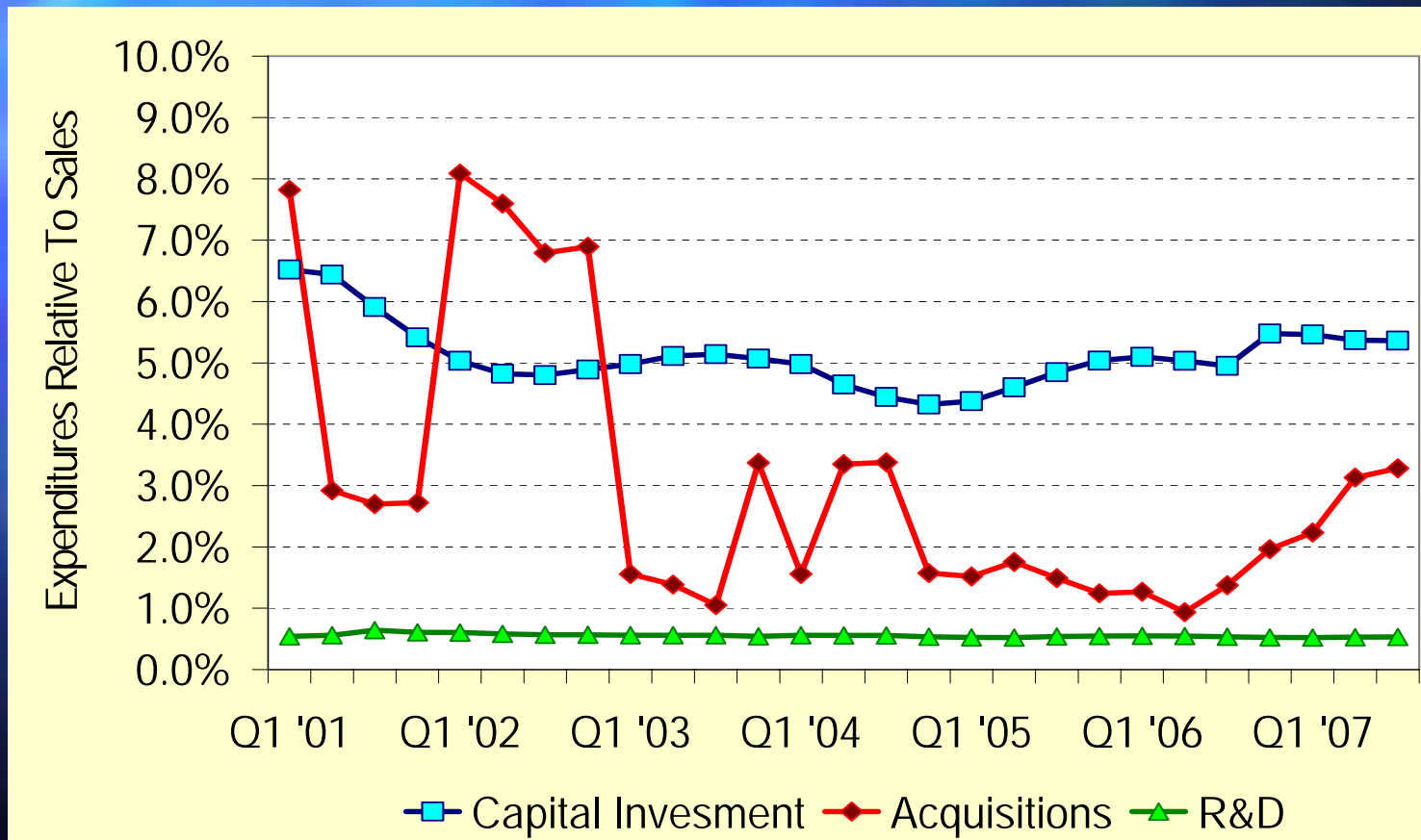
Financial Performance

Pulp & Paper *Debt* Is Finally Being Paid Down ~
In Both Absolute and Relative Terms



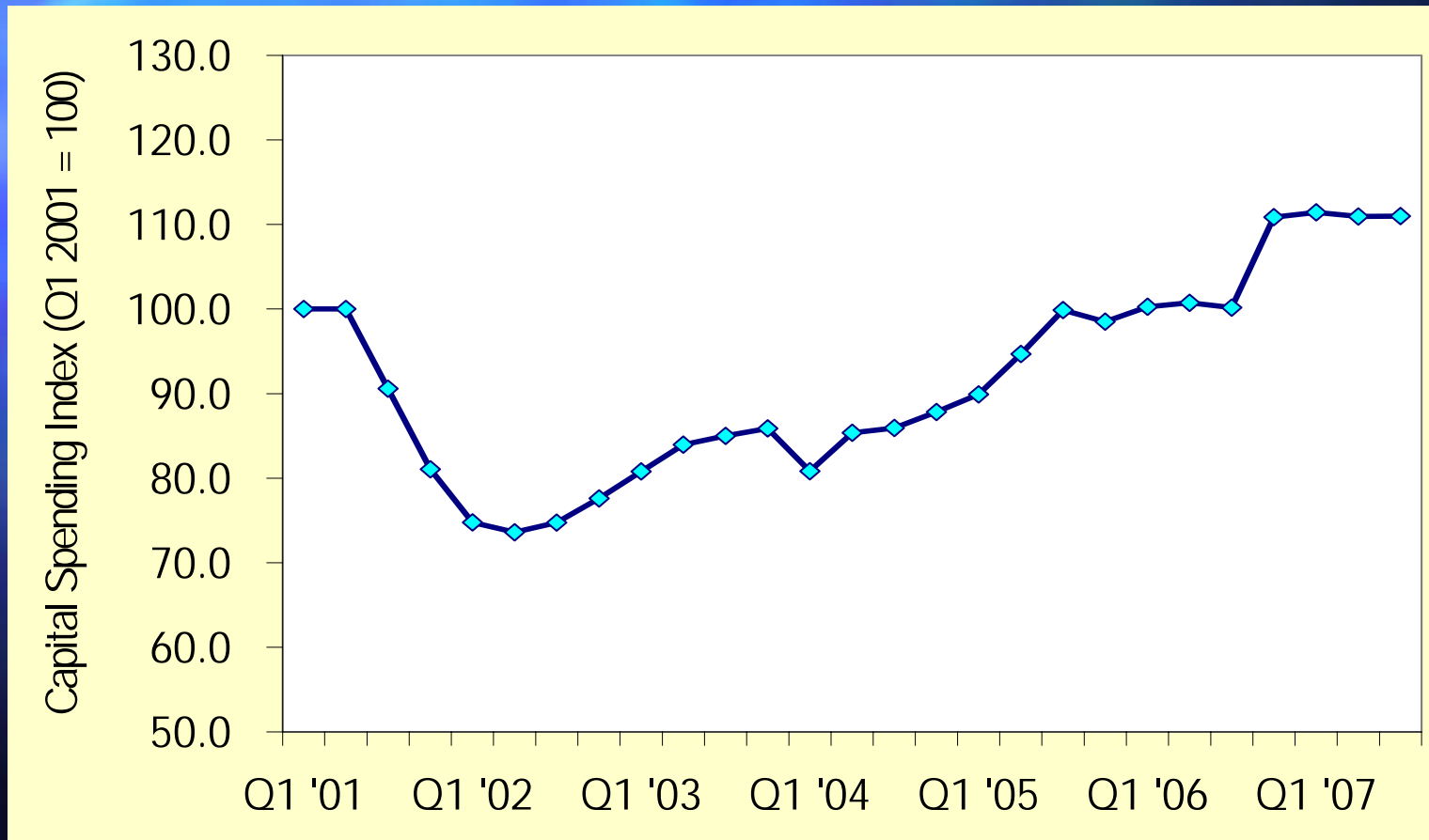
Financial Performance

Capital and M&A *Spending* Now Increasing ~
Yet Still Remains Below 2001 Levels ~ R&D Is Flat



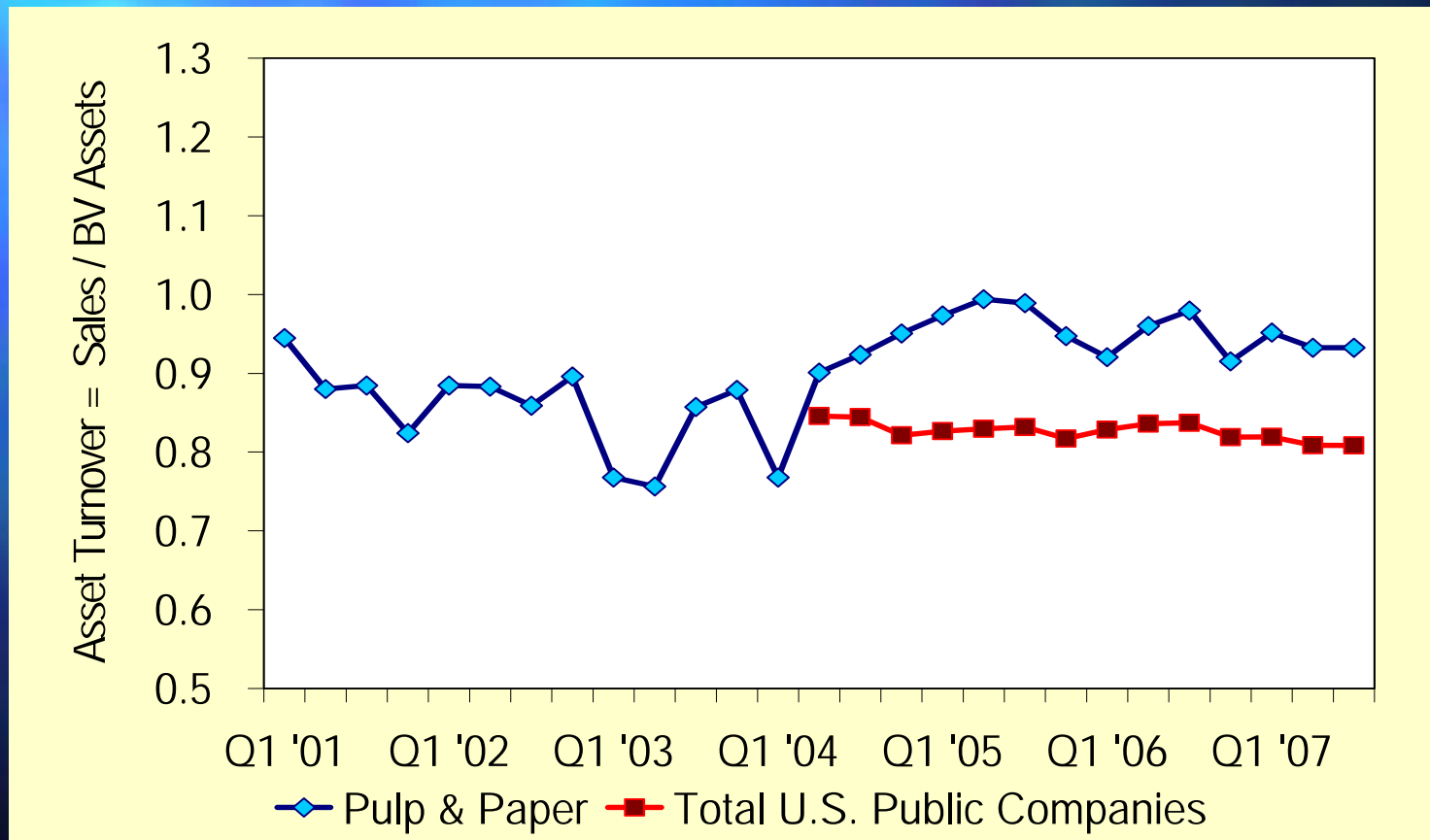
Financial Performance

A Closer Look at Slowly Recovering *Capital Spending* Dollars ~ After The Significant Drop In 2001/'02



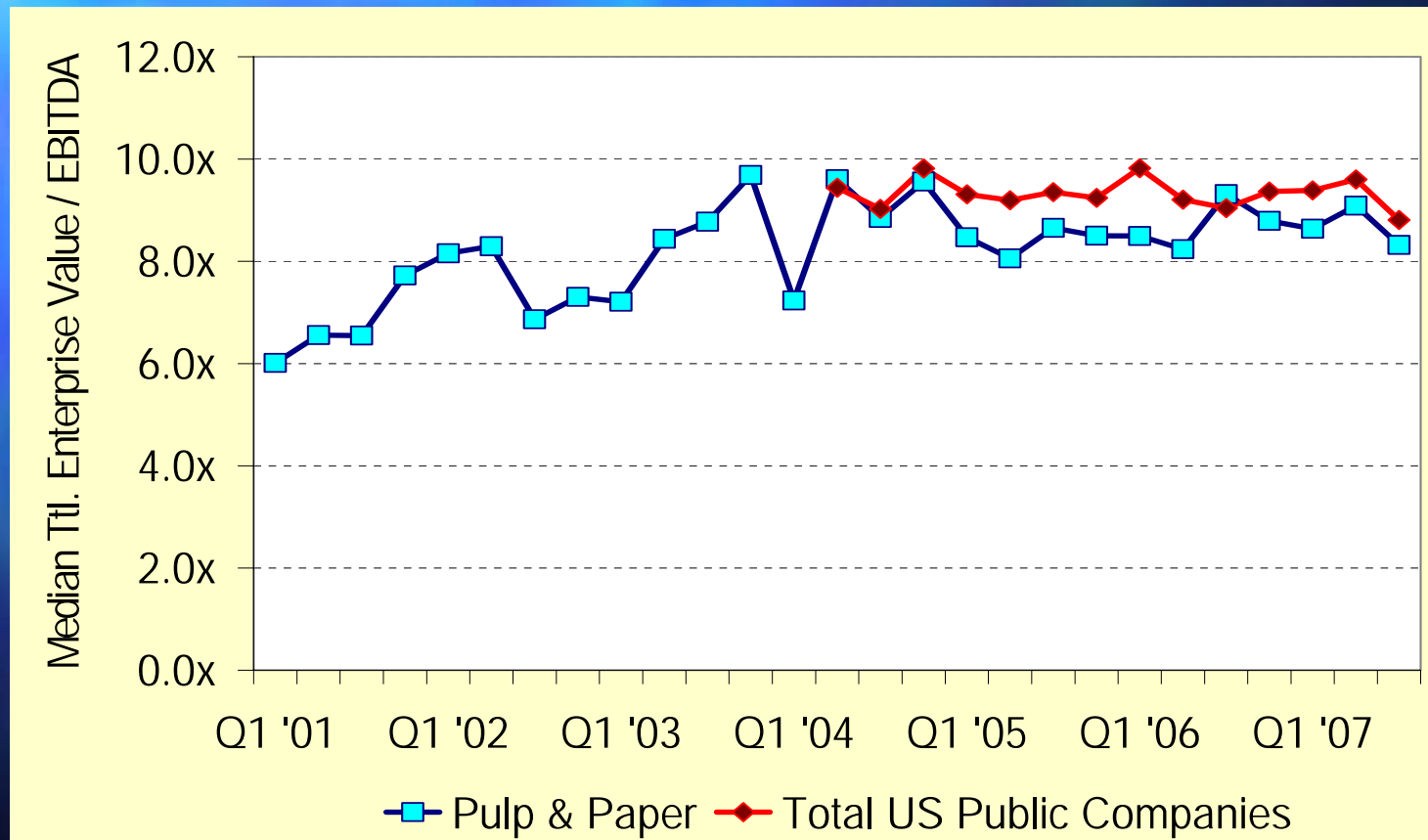
Financial Performance

But ~ *Asset Turnover* Is Improving ~
Now Exceeds Total U.S. Companies By 11%



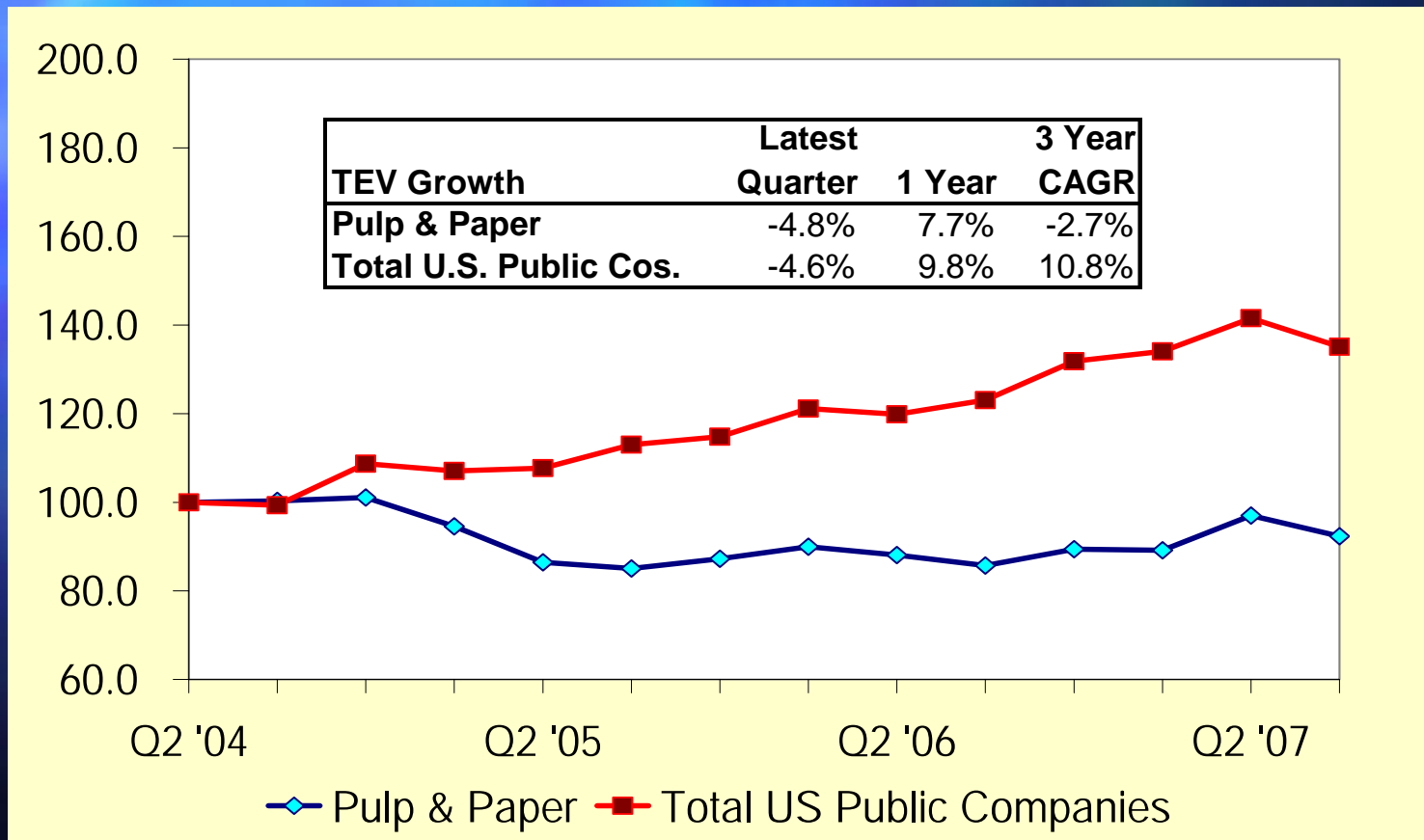
Financial Performance

And ~ *EBITDA* Multiples ~
Now More In Line With U.S. Public Companies



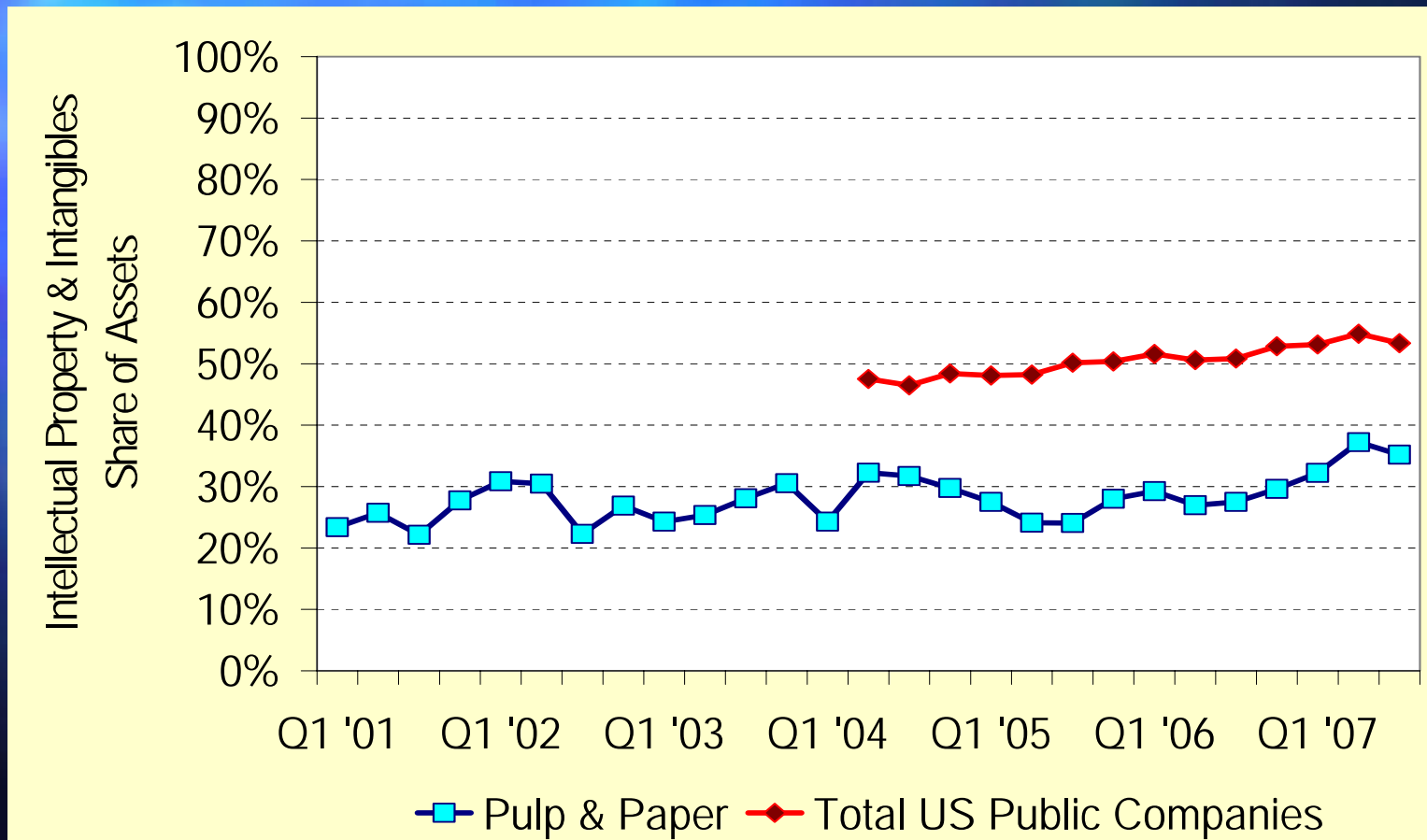
Financial Performance

And Yet ~ *Enterprise Value Growth* of Pulp & Paper ~
Continues to Decline In Both Absolute and Relative Terms



Financial Performance

Total Asset Value From *Intellectual Property and Intangibles*
For P&P ~ *Still Trails Other US Cos. by 18 Points*



Outlook ~ How Competitive

What Is Competitiveness ~ Looking Out?

*What Do We Need To Embrace ~ To Reassert A
Competitive Based Performance?*

How Do NA Assets Stack Up ~ Looking Out?

What Are Key Grade ~ Competitiveness Factors?

Changing Measures of Competitiveness

[Trade patterns, role of print, & assets' age]

What Are The Competitiveness Implications?

Outlook ~ How Competitive?

We Need to Understand That Competitiveness
Is Multidimensional ~

- Mill Performance vs. International Competition ~ *i.e. NA vs. SA/ European/ Asian mills' productivity/ quality*
- Product Performance vs. Substitutes ~ *i.e. paperboard folding cartons vs. plastic packaging, newspaper vs. TV, etc.*
- End-User Performance vs. International Competitors ~ *i.e. domestic vs. international manufacturers*
- Financial Performance vs. Other Investments ~ *i.e. returns on paper investment vs. alternatives of similar risk*

Outlook ~ How Competitive?

Based On These Dimensions ~ Industry Participants

Must Recognize ~

- Off-shoring and substitution by alternative mediums are driving *long-term demand below current levels*
- NA has become *increasingly uncompetitive* in pulp and paper production
- The industry's cost based competition and capital rationing strategies have *eroded its asset base*
- The composite financial performance of the industry has been pitiful ~ and without a sustained upturn, will further dissuade future investment ~ *even with the improved short-term environment...*

Outlook ~ How Competitive?

Absent Strength of the US Dollar Issues ~
NA No Longer Enjoys Low Cost Producer Status

Grade Category	Low Cost Production Centers
Pulp	<i>Brazil</i> , Chile, Argentina, Indonesia and <i>Canada</i> (selected)
Printing & Writing Papers	<i>Brazil</i> , Russia, Indonesia, Thailand, Scandinavia, Western Europe
Newsprint	Eastern Europe, <i>Brazil</i> , Chile and <i>Canada</i>
Premium Folding Carton Grades	<i>Brazil</i> , Russia, Sweden, Chile and Finland

Outlook ~ How Competitive?

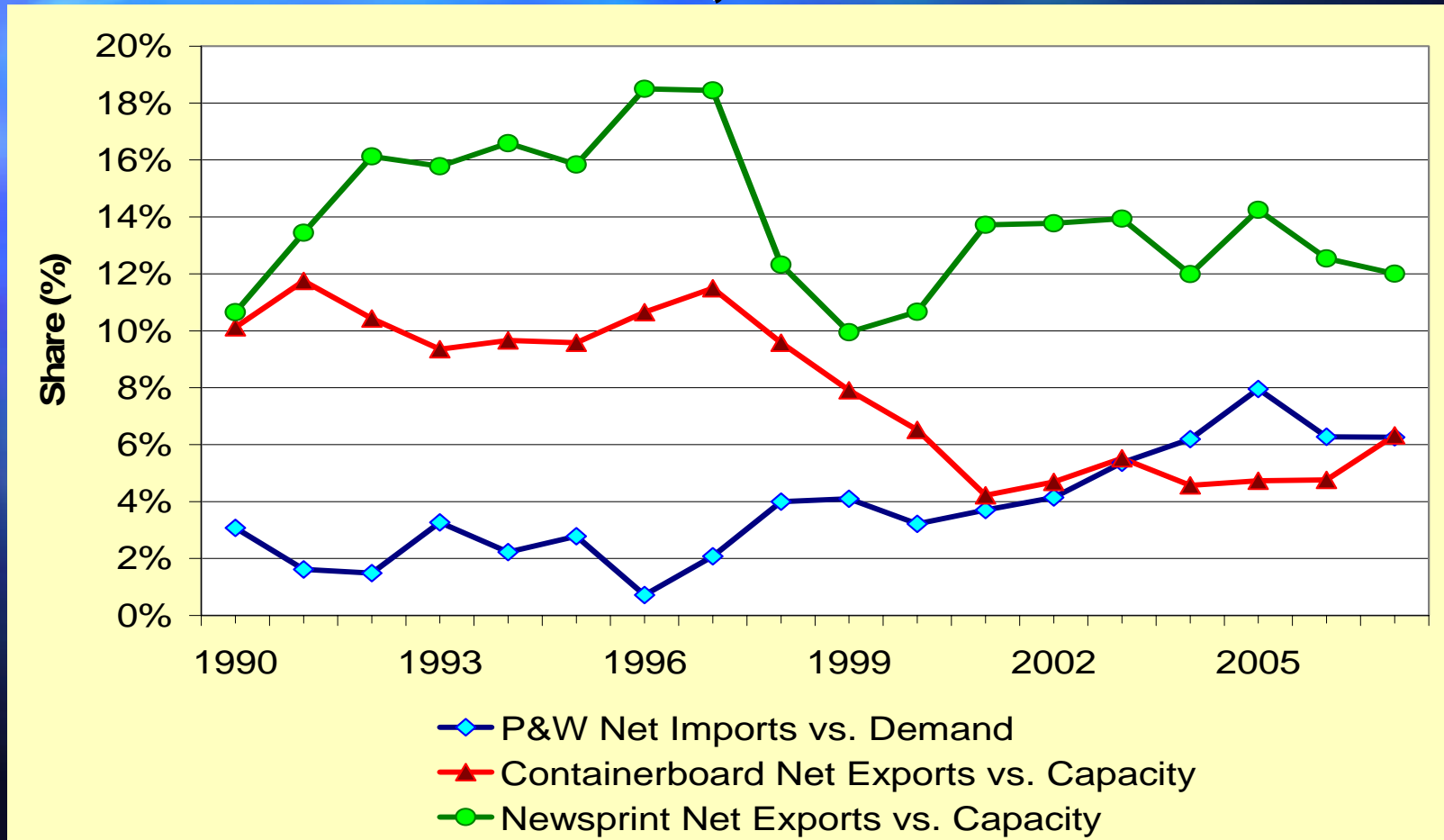
High Volume NA Grades

Have Significant Substitution Threats

Grade Category	Potential Substitutes
Containerboard	Re-usable shipping containers, offshoring of manufacturing
Packaging Grades	Flexible packaging, offshoring of manufacturing
Printing & Writing Papers	Electronic communications, alternative advertising mediums
Newsprint	Electronic communications, alternative advertising mediums
Tissue	<i>No Major Substitutes</i>

Outlook ~ How Competitive?

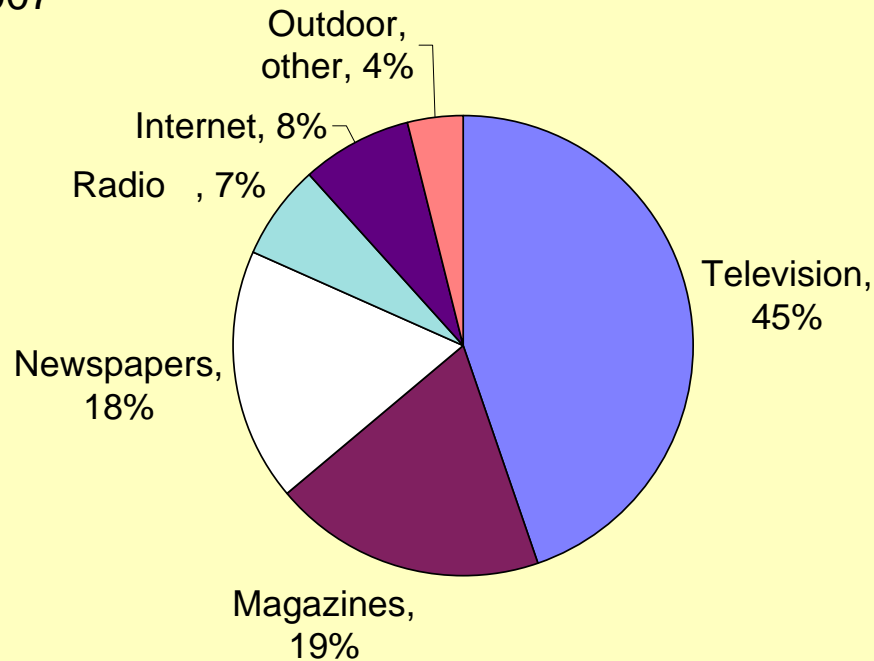
Trade Patterns *Have Weakened For NA Producers In P&W, Containerboard and*



Outlook ~ How Competitive?

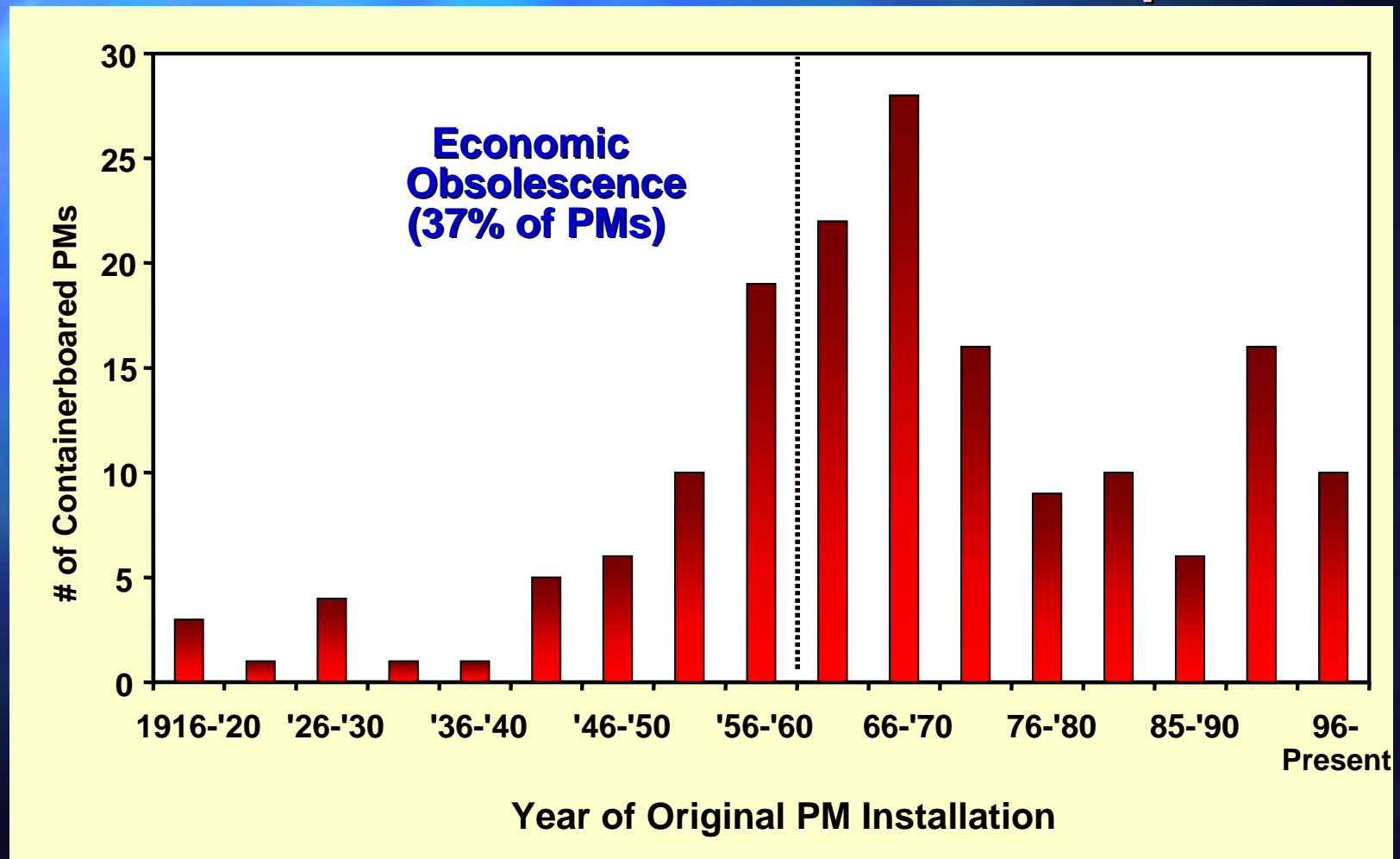
*Print Now Accounts For Only 37% of Advertising ~
Down Nearly 10 Points Market Share Since 1991*

Q1 2007



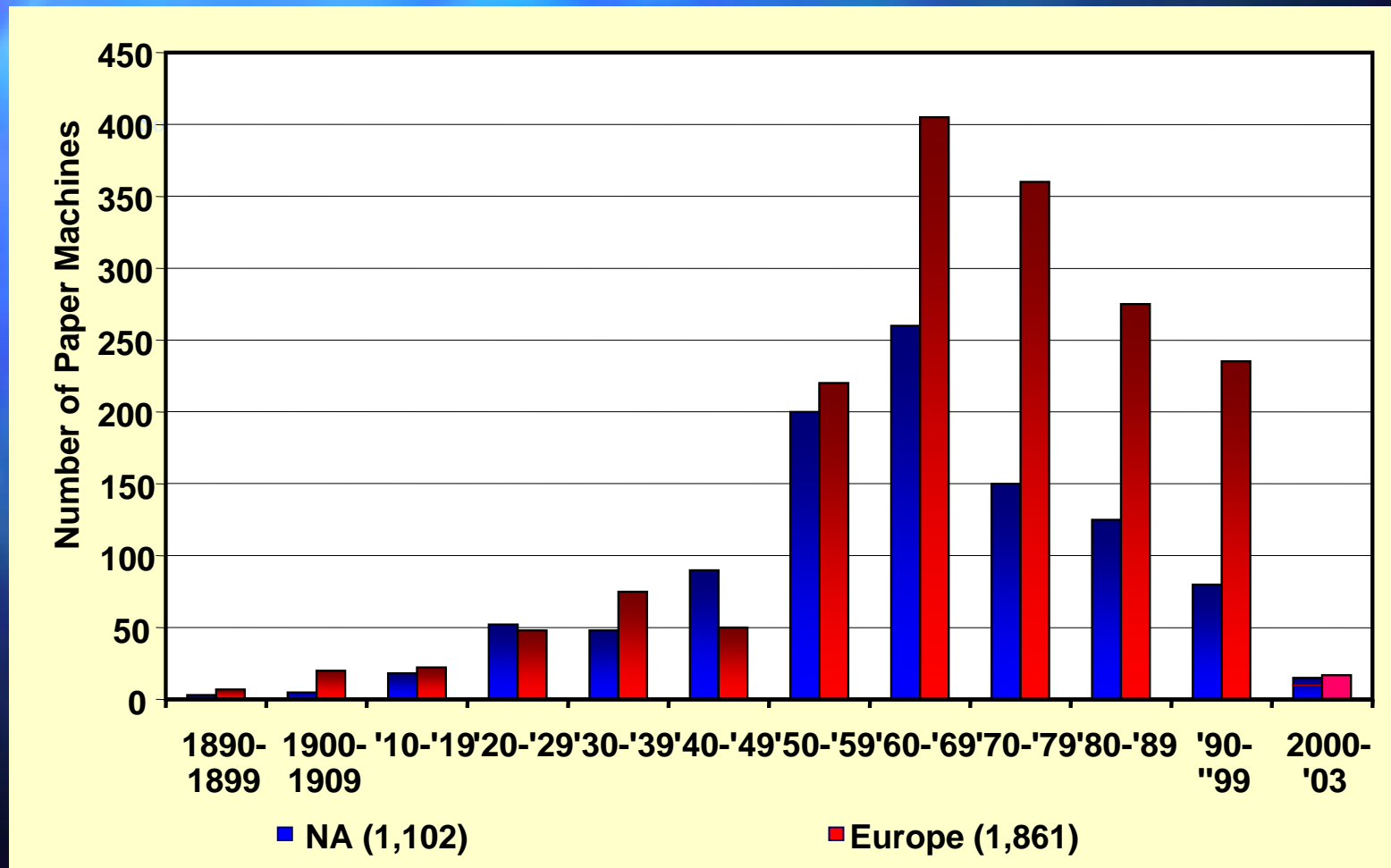
Outlook ~ How Competitive?

Large Share of NA Assets Are Approaching the End of Their Economic Lives ~ *Containerboard Example* ~



Outlook ~ How Competitive?

Europe Is Facing Similar Demand & Competitive Issues ~
But Has A Newer Asset Base



Outlook ~ How Competitive?

- In essence then ~ the industry has been a poor performer since the 1970s ~ it faces a continually tough business environment ~ *in spite of today's decent upturn*
- And, as Noted ~ the NA Pulp and Paper Industry
 - ✓ *Is not the low-cost producer on most grades, and*
 - ✓ *High-volume grades have significant substitution and global market place threats*
- Wherein ~ traditional business models have been *stretched to the limit* with
 - ✓ *The emergence of the global marketplace*
 - ✓ *The new power of rapidly moving knowledge and knowledge transfer; plus*
 - ✓ *New technologies ~ such as bio-energy, nanotechnology, etc.*

Outlook ~ How Competitive?

Accordingly ~ participants must learn how to thrive under these often *intense, negative, and rapidly changing conditions*

...yet individual companies *can* excel if they use the current short to mid-term upturn to chart a new course looking out ... *In some cases a VERY NEW looking course ...*

Outlook ~ The Economy

Overall Economic Growth

NA Economy Sectors Outlook ~

[Implications for the Industry]

Outlook ~ The Economy

Overall Economic Growth Projections ~
Indicate Slower Growth In The Industry

Real GDP Growth By Region	2004	2005	2006	2007F	2008F
Advanced Economies					
US	3.9%	3.2%	3.3%	2.1%	2.5%
Euro Area	3.2%	2.6%	3.2%	2.7%	2.3%
Japan	2.7%	1.9%	2.2%	2.4%	2.1%
UK	3.3%	1.9%	2.8%	2.7%	2.5%
Canada	3.3%	2.9%	2.7%	2.5%	3.0%
Other Advanced Economies	4.3%	5.8%	5.7%	4.9%	5.1%
Emerging Markets	6.6%	6.7%	7.3%	6.7%	6.2%
Africa	4.5%	5.8%	5.6%	5.8%	5.8%
Central / Eastern Europe	5.5%	6.0%	6.8%	6.0%	5.0%
Developing Asia	7.6%	9.0%	9.5%	8.7%	8.0%
Middle East	5.1%	4.3%	5.0%	4.5%	4.6%
Latin America	4.6%	4.7%	5.6%	4.8%	4.3%

Outlook ~ The Economy

NA Sectors That Directly Drive Pulp & Paper Demand Are Weakening Again ~ But Generally Remain Positive

Economic Indicator	Industry Segment Impacted	1995-2000	2000-2005	2006	2007E
Real GDP	All	4.1%	2.5%	3.3%	2.1%
Implicit Price Deflator	All	1.6%	1.9%	3.1%	3.4%
Personal Consumption Expenditures	All	4.4%	3.2%	3.1%	3.1%
Industrial Production	All	6.0%	0.1%	3.9%	2.1%
Indust. Prod. - Non-Durables	Containerboard	1.3%	-0.6%	2.1%	2.1%
Indust. Prod. - Durables	Packaging	9.5%	0.7%	7.4%	5.3%
Food & Beverage Sales	Boxboard	3.2%	3.6%	1.0%	-9.5%
Food services and drinking places	Tissue	5.5%	6.3%	+8.0%	6.0%
Computer & Peripheral Sales	P&W Papers	5.2%	2.0%	+5.5%	-12.5%
Professional Employment & Business Services	P&W Papers, Tissue	5.3%	-0.4%	3.4%	1.9%
Housing Starts	Tissue, Building Products	2.9%	5.5%	-13%	-25%

Key Takeaways

Overall ~ 2006 was a *very good year*

But 2007 *demand is slowing* with the overall economy and / or in reaction to higher prices
[& 2008 is a question]

This is in turn causing erratic market dynamics where ~ *pricing is starting to weaken in some grades*

And as a caution ~ For the first time in a number of years ~ *there is a significantly increased chance of recession*

Key Takeaways

Looking Out

- The NA industry financial performance has been poor for a number of years ~ *But is improving*
- Short-term improvements are a relief ~ but are sensitive to *significantly increase major capacity additions*
- Quality of investment decisions, economic & demand factors + industry's motivation for *changed business models* ~ will drive performance mid-to long-term
- Changes in industry direction will impact all aspects of the industry ~ *producers and suppliers alike ...*

Final Thoughts

The essential focus we should have at this place in our industry's path forward is that the future is ours to create ~ timidity will undermine our efforts . . .

*And . . . In this context ~ our challenge is really to seize the opportunities *instead of simply enjoying our respite* ~ to refocus and restructure in new and novel ways . . .*

And Remember

Even though the Current Industry State of Affairs is Still Unstable & Many Systemic Problems Remain ~ As that Famous Arm Chair Philosopher Ziggy Once Said



***“You can Complain Because
Roses have Thorns, or you can
Rejoice Because Thorns have
Roses”***

Contact Information

Thank You! ~Copies Available At

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