

State of the North American Pulp & Paper Industry



There Is Light On The Horizon

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Overview

Where Are We?

Financial Performance

Outlook – How Competitive

Outlook – The Economy

Outlook – Key Raw Materials

Key Takeaways

Final Thoughts

Where Are We?

NA Industry – Context

Investors' – Context

Volume & Price – Trends

Where Are We?

North American Industry Context

- Enjoys significant *fiber resources & logistics*
- Competitiveness boosted by weaker U.S. dollar, *has improved but still dealing with aging asset base*
- Has enjoyed an upturn - *in pricing, investments and shareholder returns*

How long will the upturn last?

- Many companies *are now making moderate investments – however the bigger spending is for private equity to acquire substantial industry assets*

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* – slow growth**
- ***Organizational* structure changing**
- ***Significant improvements* essential for individual companies to outperform the market & industry to reassert dominance**

Where Are We?

Investors' Context

- Paper manufacturing *has performed well enough to remain viable* – but overall returns have been below target
- However, a number of industries have substantially improved performance once *consolidation and discipline* took hold
- The Steel & Can industries are examples of industries *going from poor to strong performers*

Where Are We?

Investors' Context

- Could paper *be next?*
- Private Equity Investors *certainly think so*
- Ten years ago
 - ✓ *The UCF market was a free-for-all, with 10-14 major producers competing*
 - ✓ *Today, three firms control 70% of the market*
- And good things happen to industries when *supply becomes extremely constrained*
 - ✓ *Consider crude oil refining and today's windfall profit taking*

Where Are We?

Investors' Context

- A new mill hasn't been built in *last 12+ years*
 - ✓ *Even with zoning, environmental & regulatory clearances, the cost would be economically prohibitive for major players*
 - ✓ *Private equity is paying about 30-40% invested capital costs for assets*
- *Capacity is being constrained & managed*
- *As such in the not-too-distant-future, this may lead to full cost of capital returns*

Where Are We?

Investors' Context

- Other drivers providing *tailwinds for the US industry*:
 - ✓ *Asia's huge appetite for commodities & pulp + rising shipping costs = an unprecedented situation*
 - ✓ *Weaker dollar – makes imports more expensive generally*
 - ✓ *Now more expensive by 10%-20% to import paper products from Europe & Asia than to manufacture them domestically*
 - ✓ *And unlike the US automotive industry, paper makers don't have major legacy issues – pensions, health care, or environmental headaches*
- Some now then think all of this = *a more bullish future for our industry*

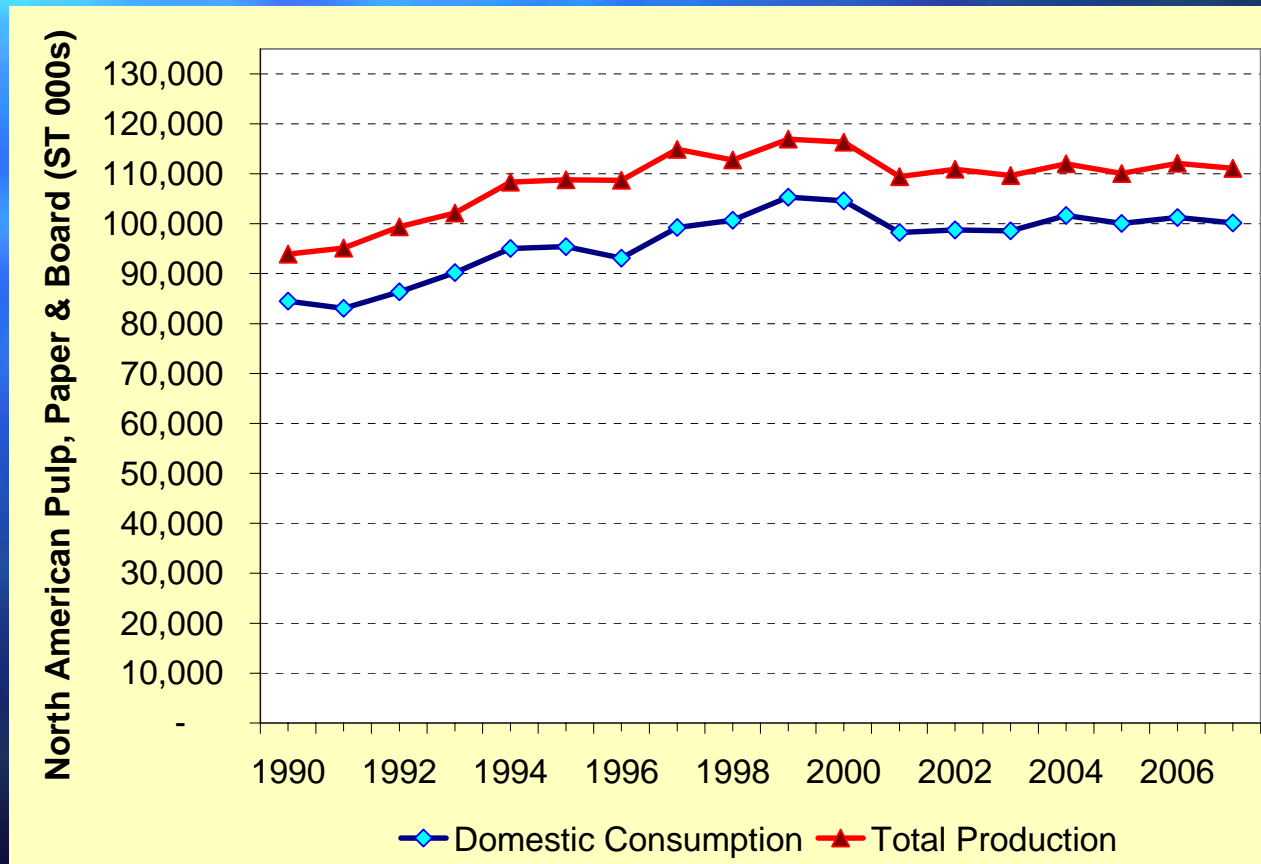
Where Are We?

Investors' Context

- Yet, there are *cautionary limits of these market place changes* we must be on top of:
 - ✓ *The flattening of cost curves that go with consolidation and assets' closures*
 - ✓ *That can in turn wreak new havoc on a commodity industry, without great care*
 - ✓ *The lackluster stock markets reactions to these today's market changes are limiting*
- So even with these positive shifts for the NA Market noted herein, *vigilance is required*

Where Are We?

Volume Off 3-4% from 1999 Peak
Yet Absolute Volume Remains Large



Where Are We?

Falling Volume – More Than Offset by Rising Prices

NA Grade	2007 Change In NA Production	Current vs. 2006 Average Price
Printing & Writing	-1.6%	+8% to +12%
Boxboard	+1.0%	+18%
Containerboard	-0.3%	+12% to +18%
Newsprint	-5.8%	-10%
Tissue	-4.3%	+2%
Chemical Paper Grade Pulp	+2.5%	+21% to +38%
Total	-1.1%	+9%

Where Are We?

Prices are up – *Except For Newsprint*

Grade	Date	Latest	Year Ago	% Chg
UFS #4 Xero (US\$/ton)	02/2008	\$1,045	\$937	+12%
60lb #3 CFS (US\$/ton)	02/2008	\$1,000	\$925	+8%
42# Kraft Liner (US\$/ton)	02/2008	\$550	\$490	+12%
30lb Newsprint (US\$/tonne)	02/2008	\$588	\$650	-10%
Pulp NBSK Trans. (US\$/tonne)	02/2008	\$778	\$564	+38%

Financial Performance

Comparative Trends – Revenue & Profits

Return on Capital Employed & Debt

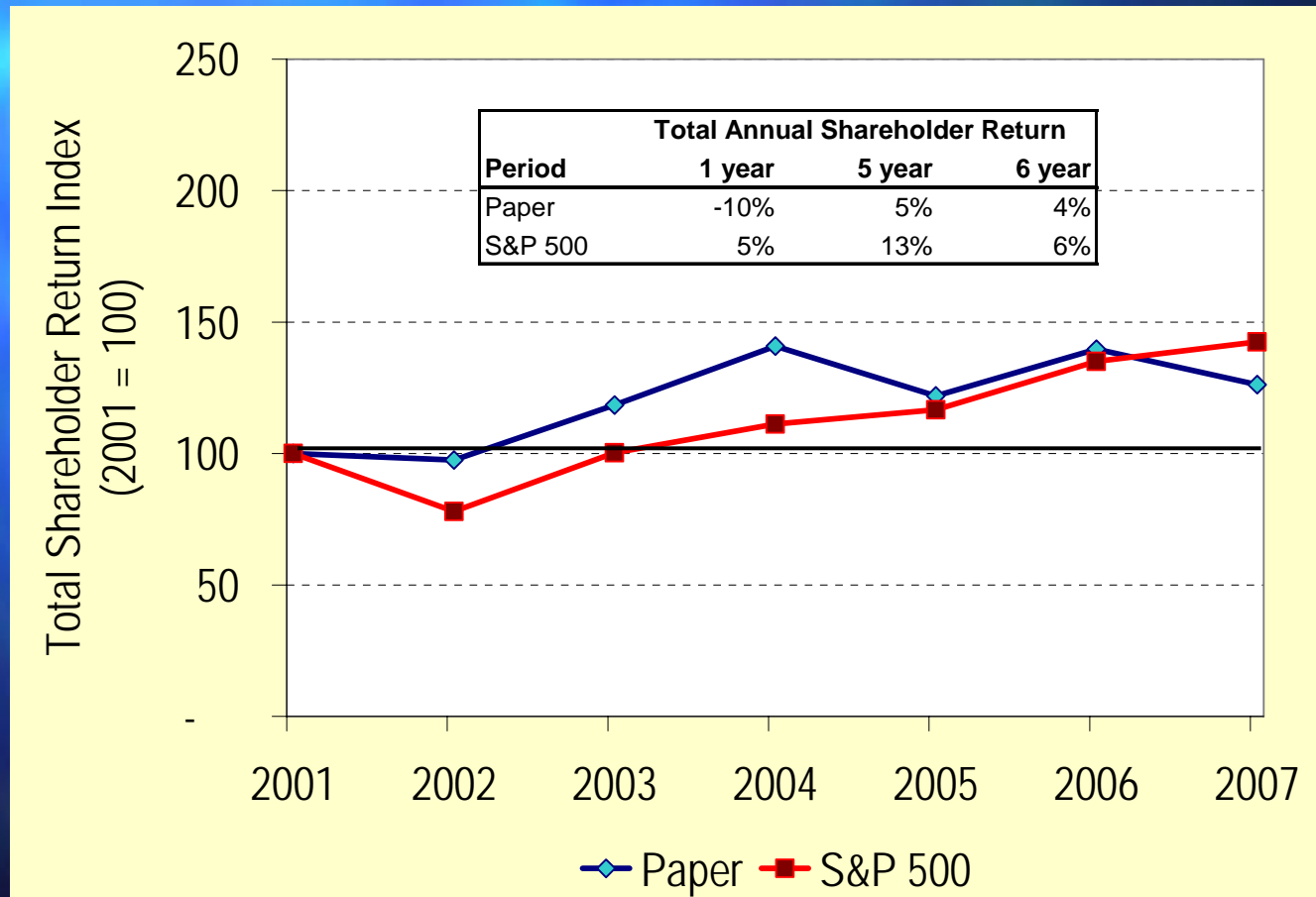
Investment Spending

Other Financial Measures

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

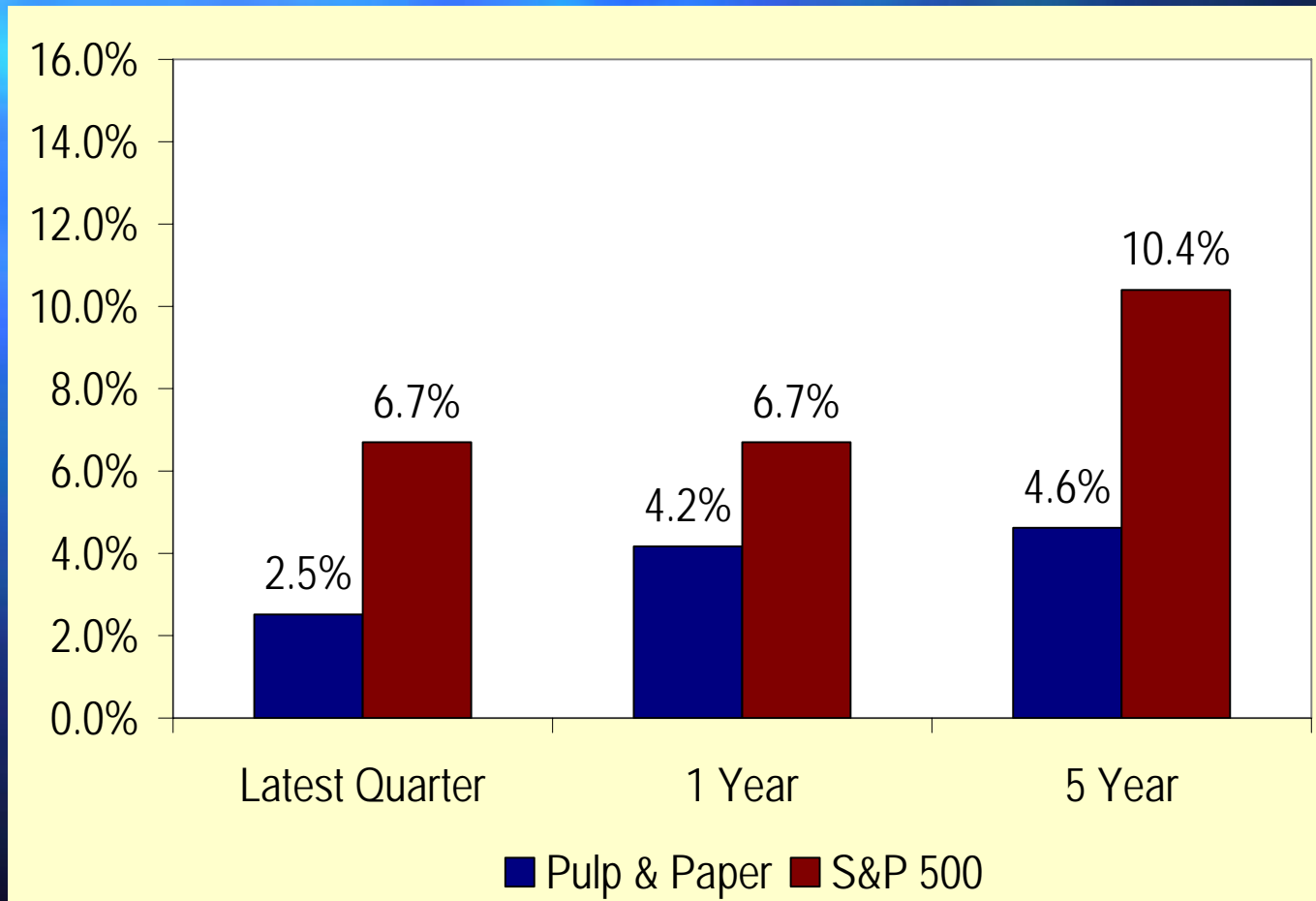
Financial Performance

Total Shareholder Returns *Have Been Positive and Less Volatile Than ~ But Trail ~ The S&P 500*



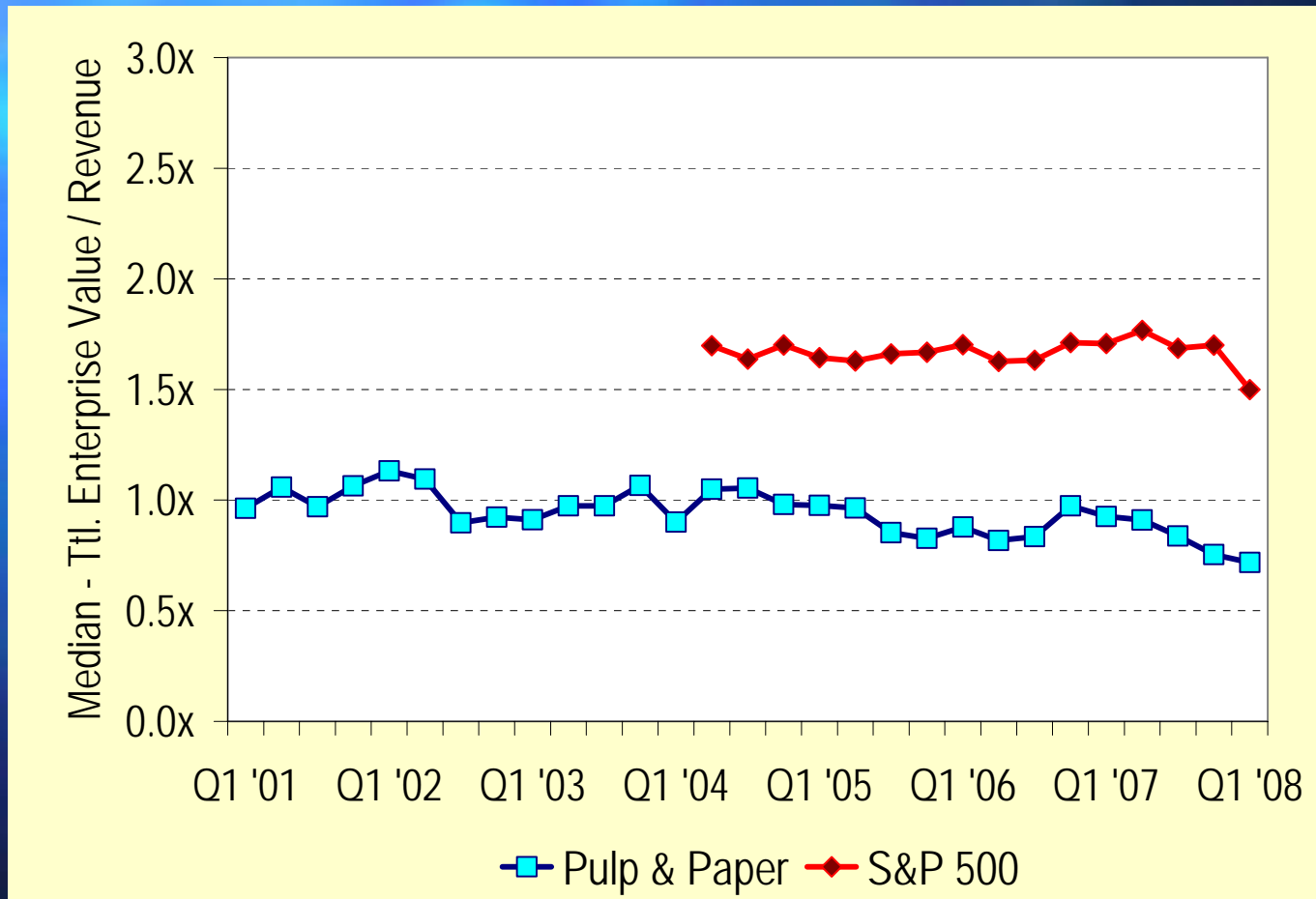
Financial Performance

Pulp & Paper Revenue *Continues To Grow*
Yet Lags Benchmark US Companies



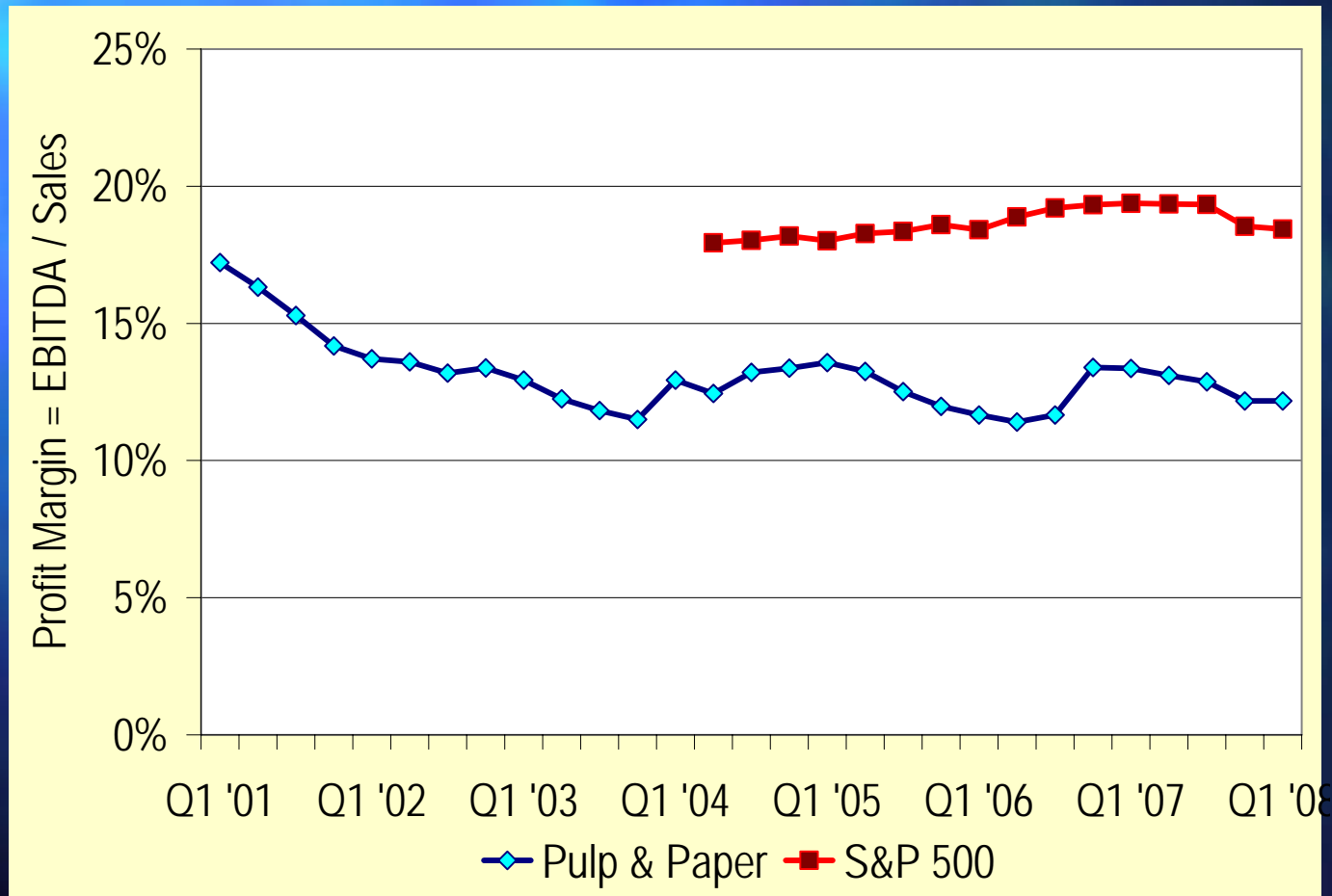
Financial Performance

Market Value – Revenue Multiple – *Trails S&P 500*



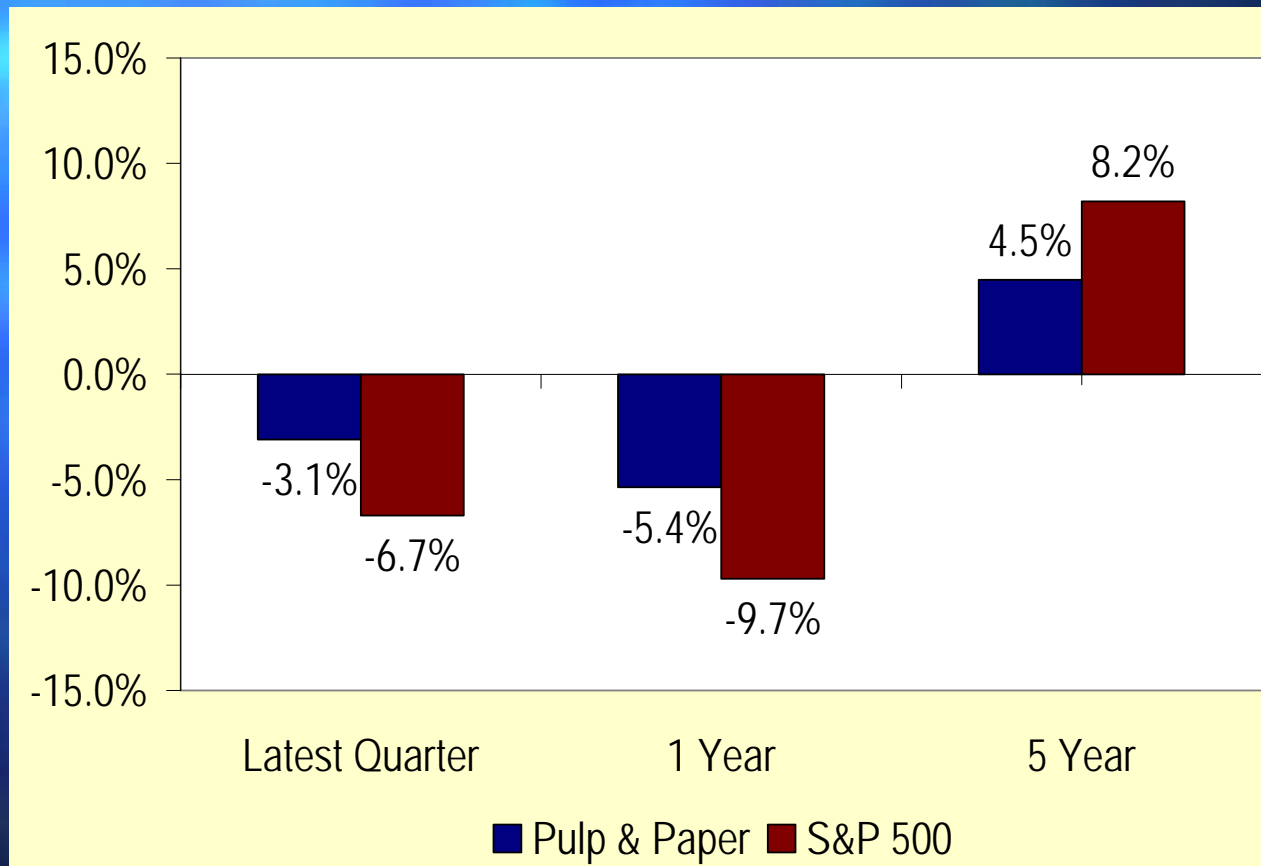
Financial Performance

Profit Margins *Steadied After A Period Of Decline*
 But Remain 6 Points Lower Than The S&P 500



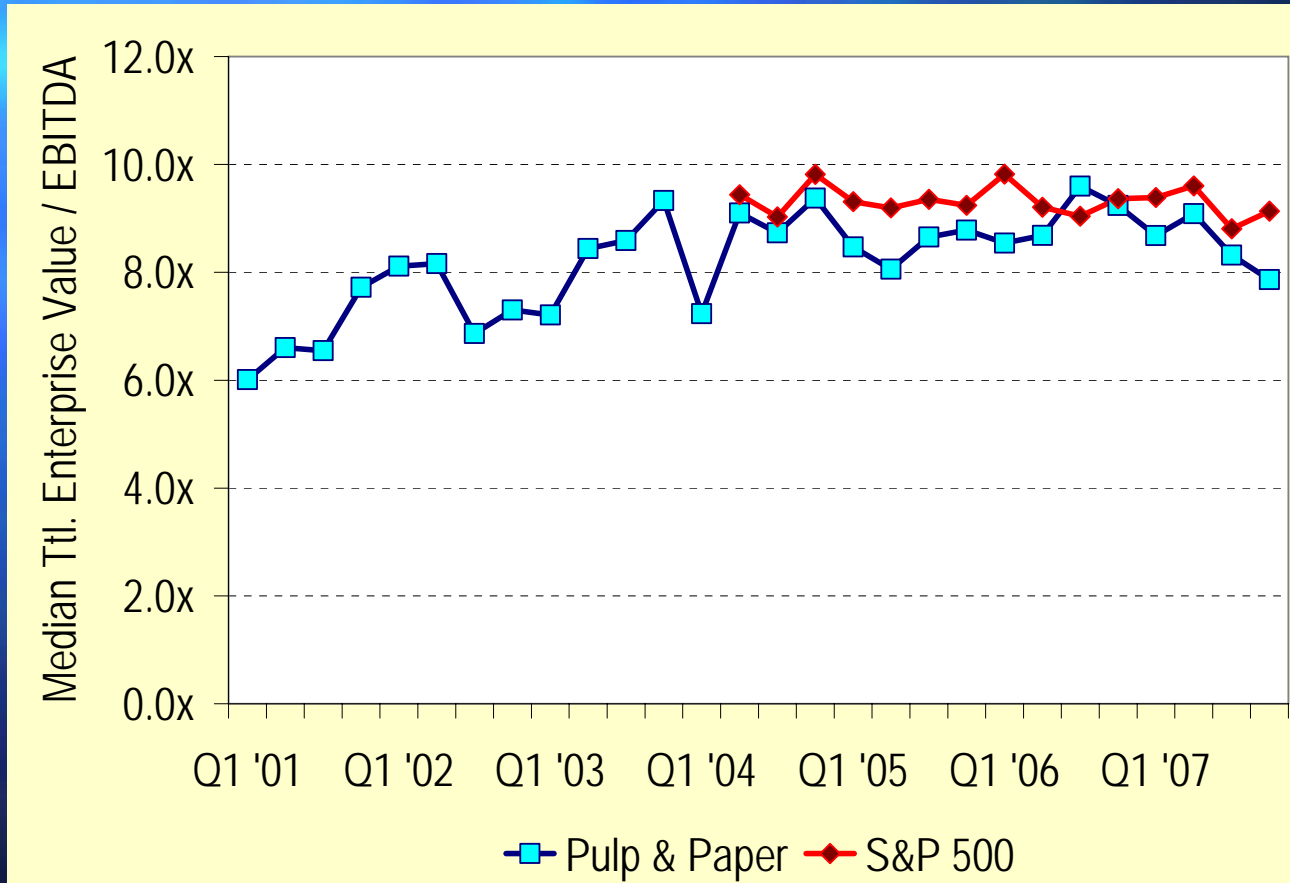
Financial Performance

Pulp & Paper Profits *Growing Long-term* – And
Falling Less Than S&P 500 In Short Term



Financial Performance

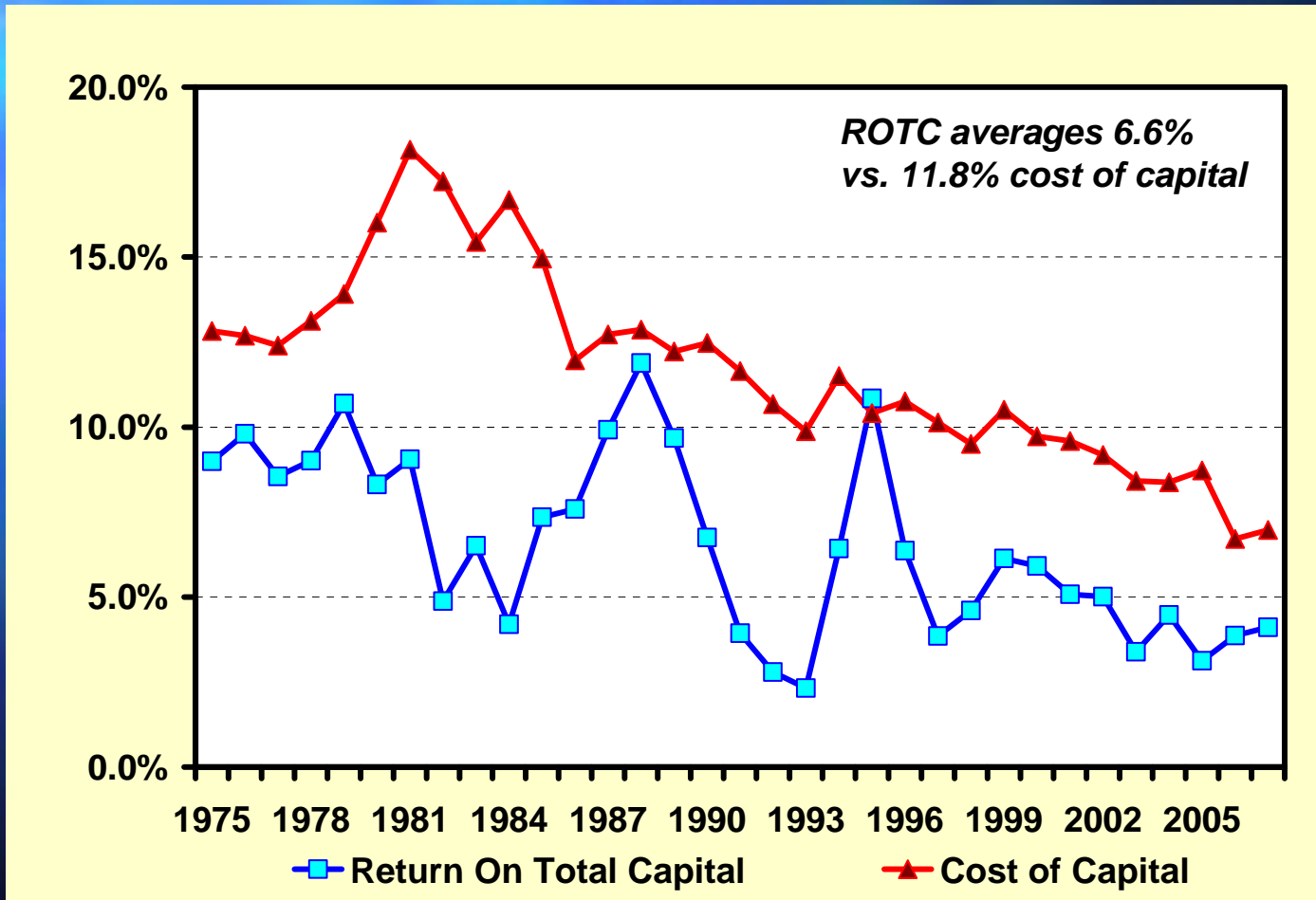
Market Value – EBITDA Multiple
Trails, But Is in Line With S&P 500



Financial Performance

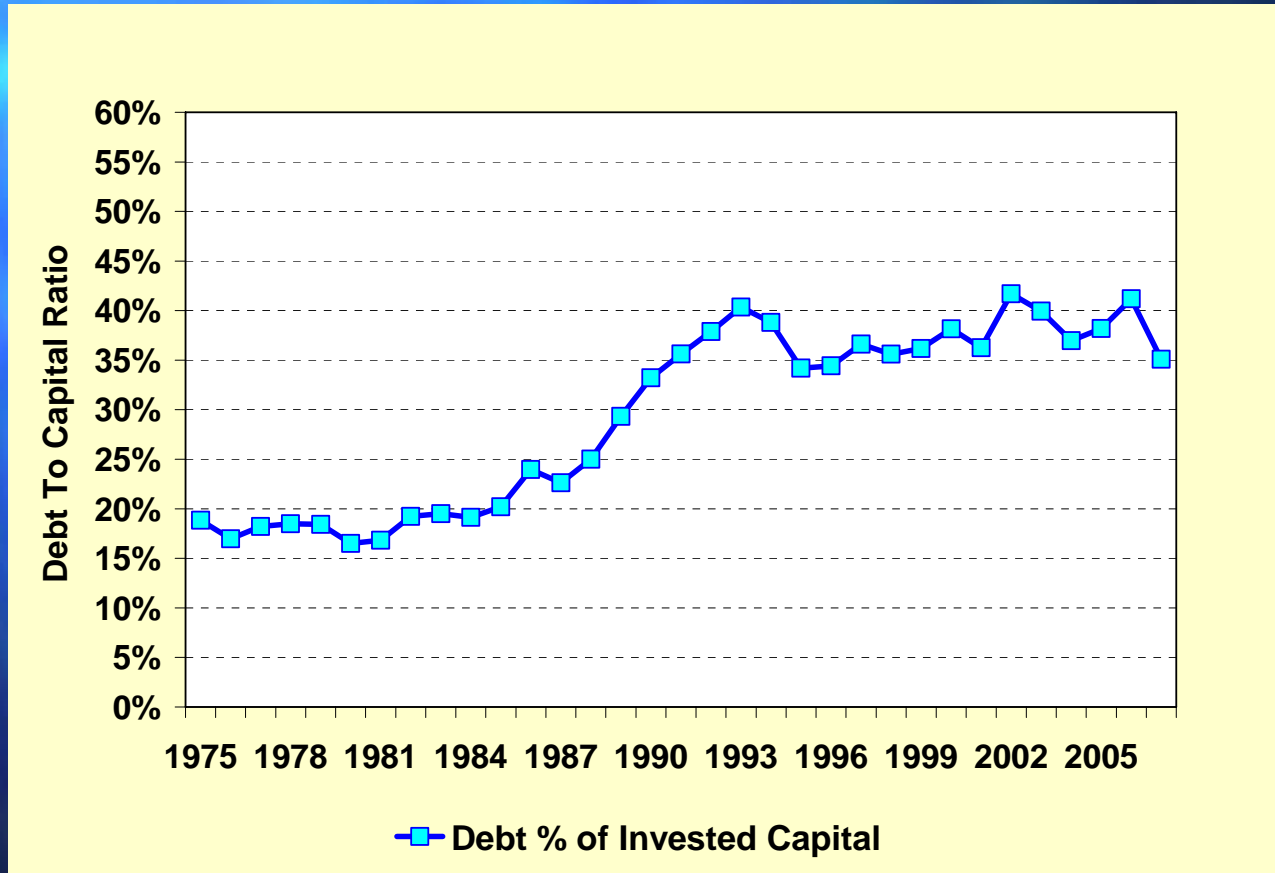
Returns on Book Value of Total Capital

Covers Debt But Remains Below Cost of Capital



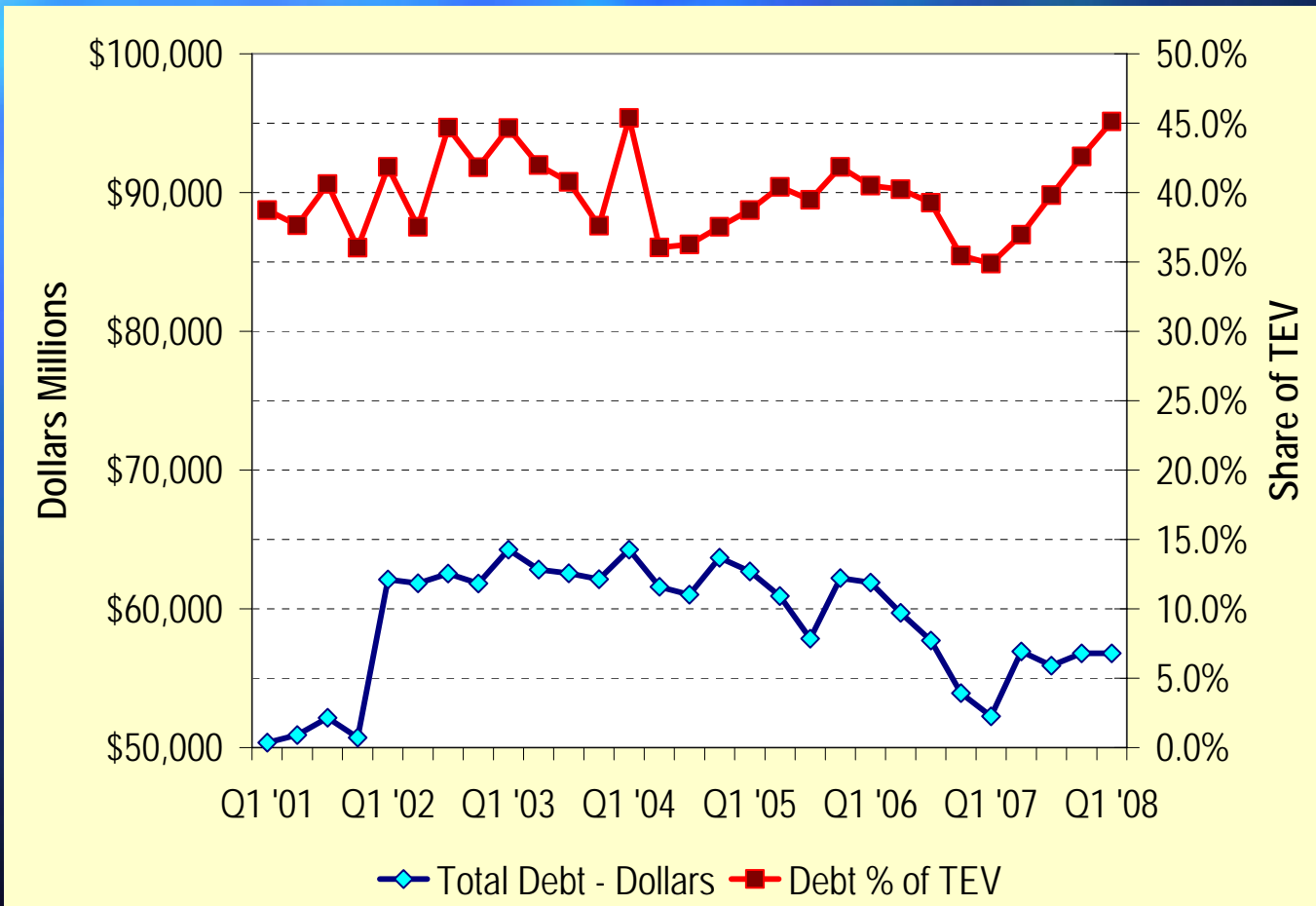
Financial Performance

Book Value of Debt – Risen vs. Investment
A Limitation, *But Has Forced Spending Discipline*



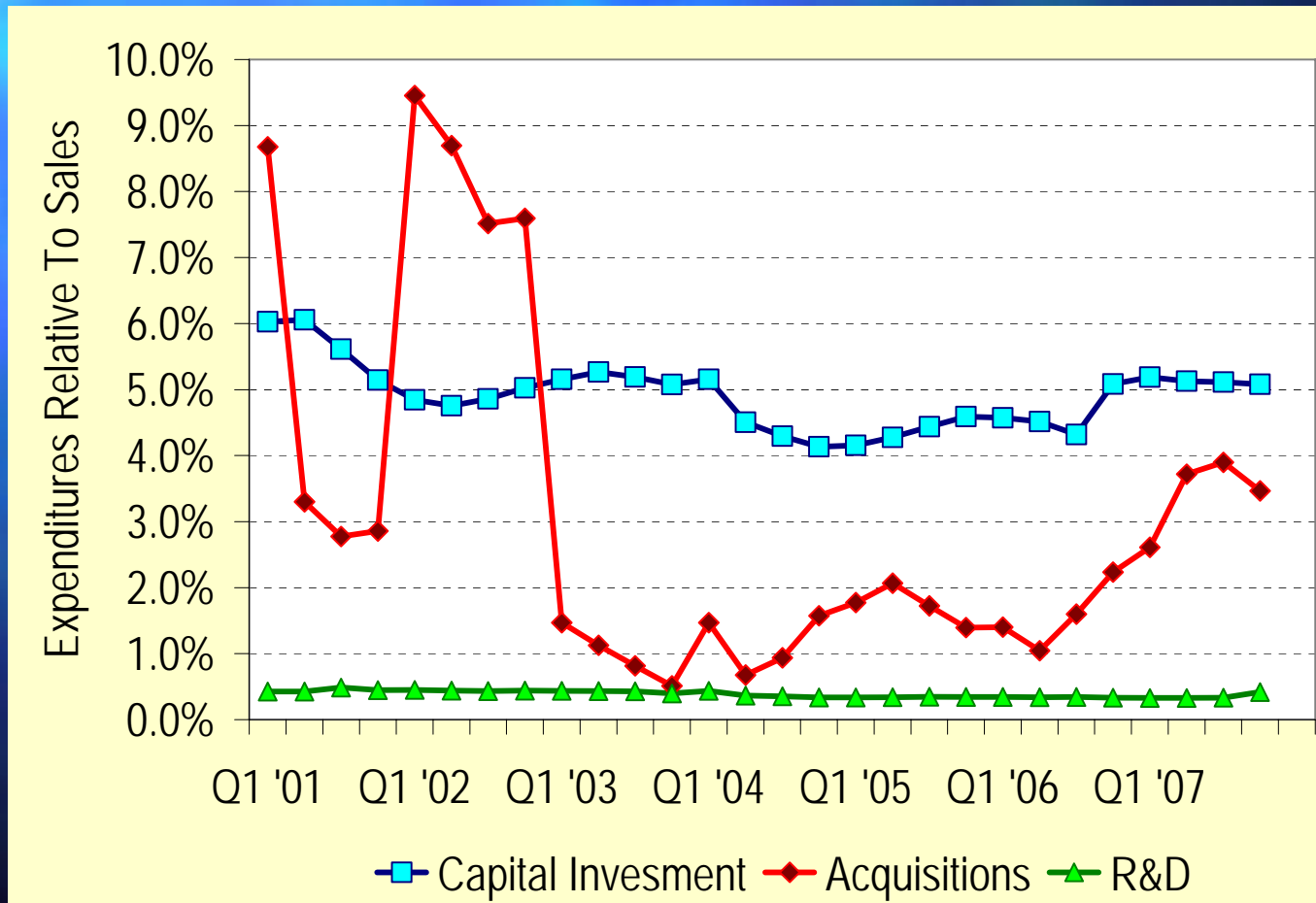
Financial Performance

Market Value of Debt *Rose In 2007* Relative To Equity
But Remains Below 2002-2006 In Absolute Dollars



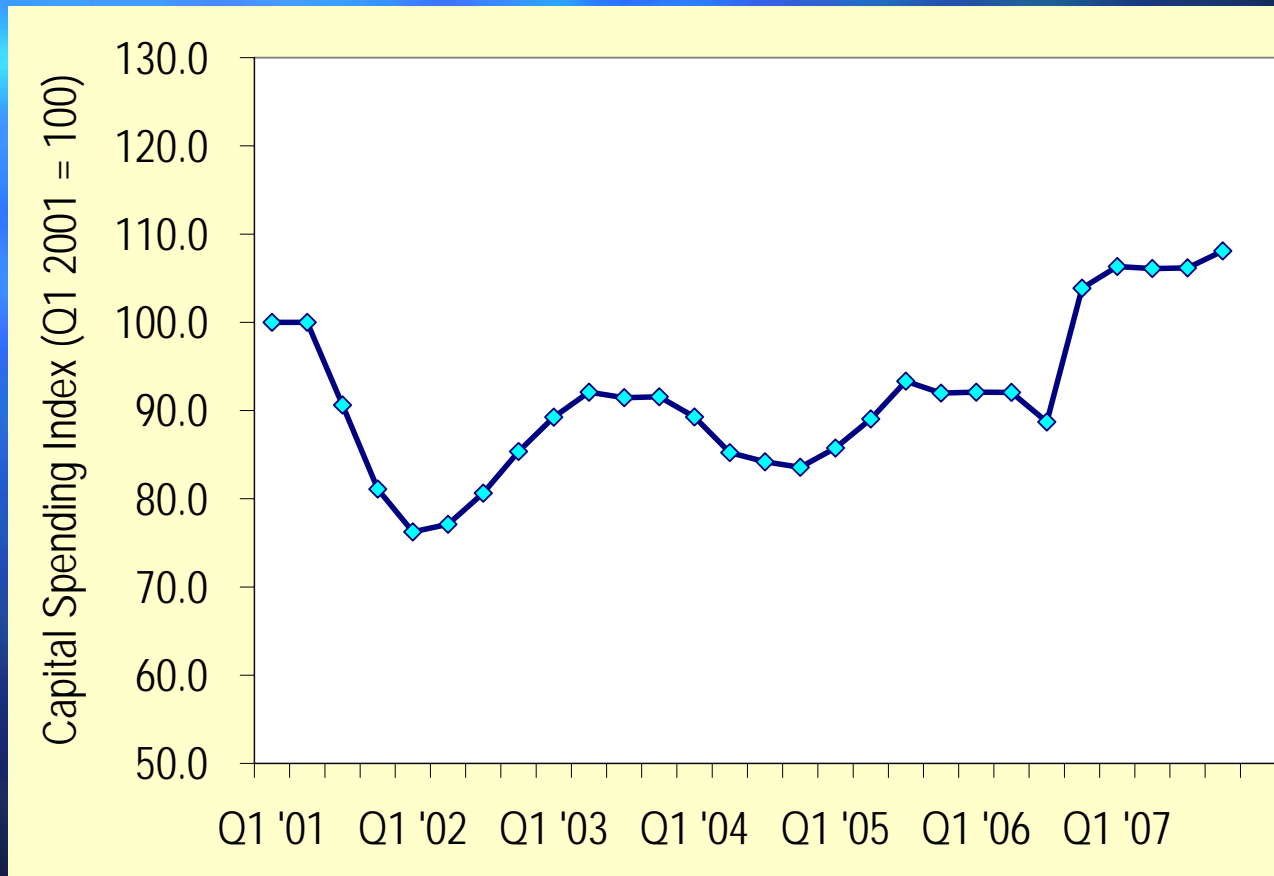
Financial Performance

Capital & M&A Spending *Now Increasing Versus Sales* But Are Below 2001 Levels - *R&D Is Flat*



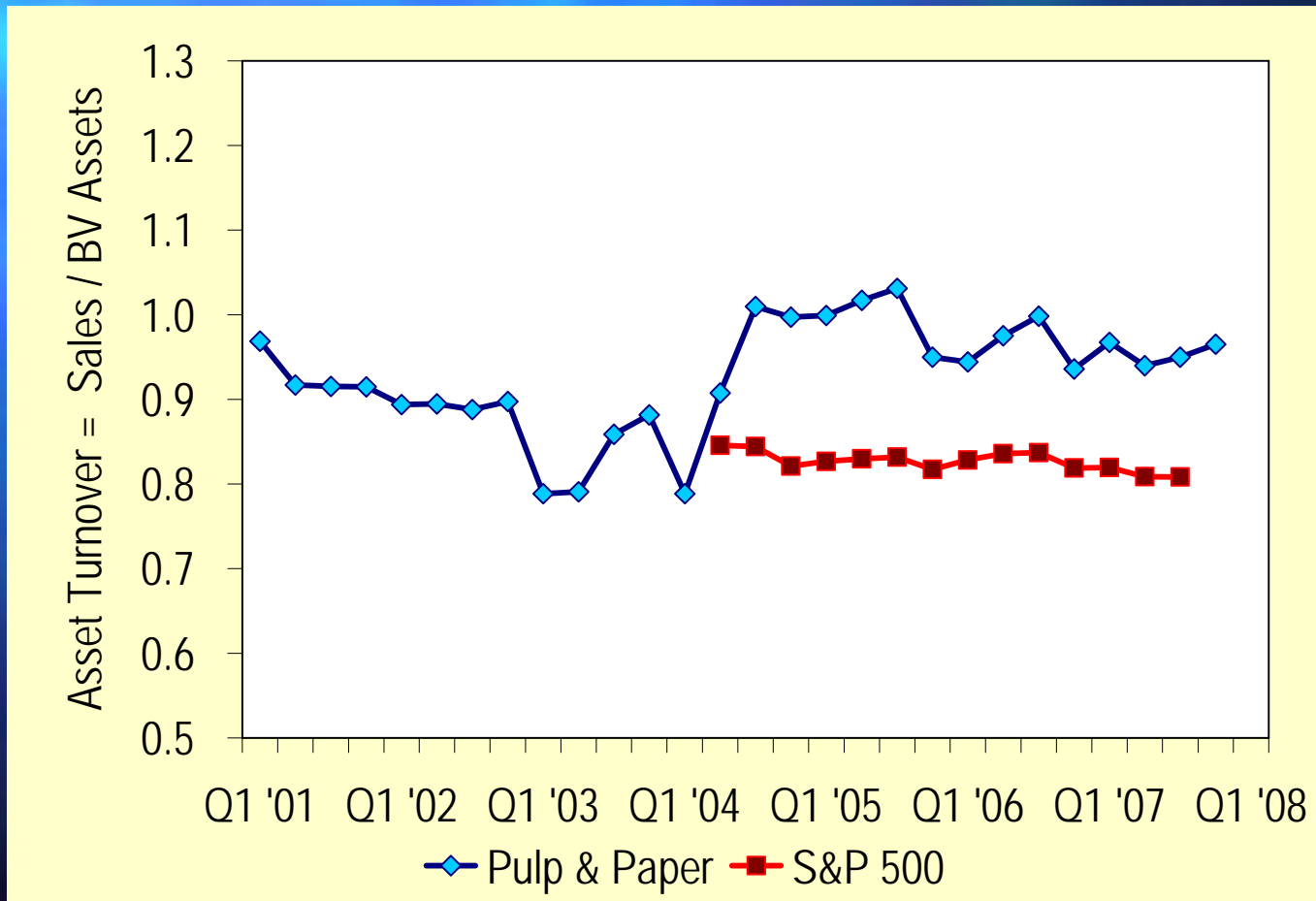
Financial Performance

Capital Spending In Absolute Dollars
Has Recovered After 2001/ 2002 Drop



Financial Performance

Asset Turnover Is Improving
Now Exceeds S&P 500 By 11 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 have driven demand below peak levels
- NA *lost its cost leadership in pulp and paper production* – but its *competitiveness is being lifted* by a weak dollar and performance improvements
- The industry's capital rationing strategies did *erode its asset base*
- The composite financial performance *weakened*
- Yet with the upturn of the past few years and improving & changing economics – *there is real potential*

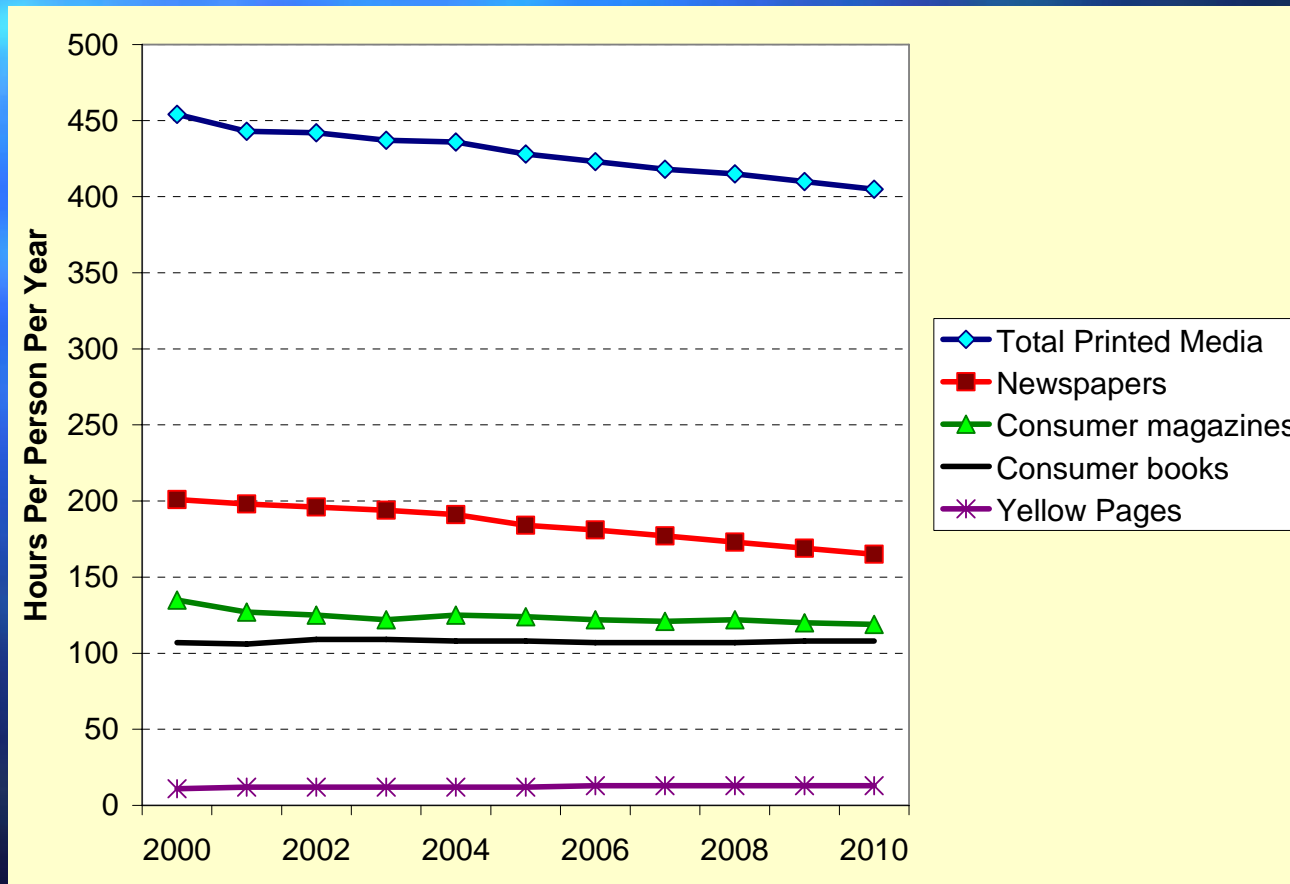
Outlook – How Competitive?

High Volume NA Grades Have *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>

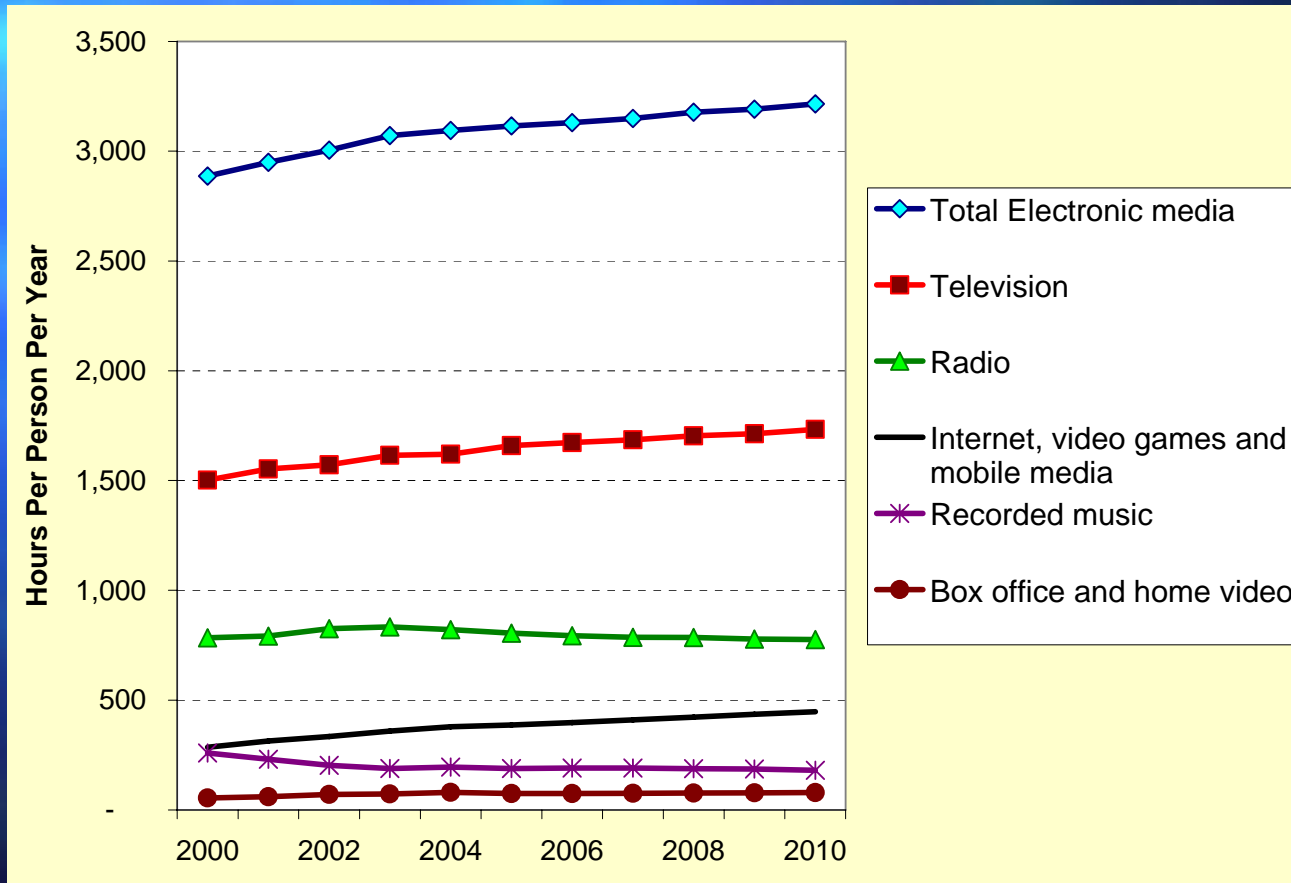
Outlook – How Competitive?

The Time Spent By US Consumers With Printed Media is Down – **Except Books and Yellow Pages**



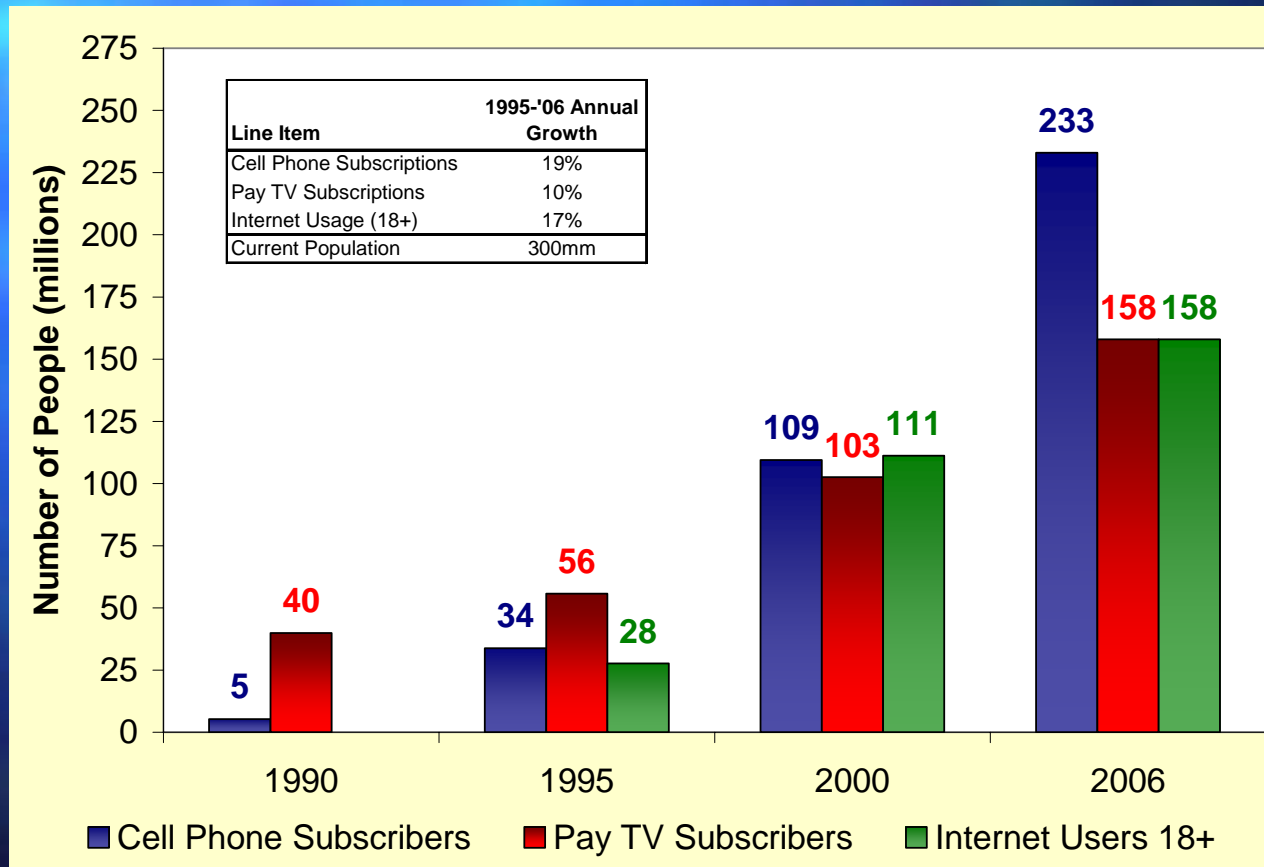
Outlook – How Competitive?

The Time Spent By US Consumers With Electronic Media Is Up – Except Radio and Recorded Music



Outlook – How Competitive?

Domestic Paper Demand Has Been Resilient Given
The Rate of Adoption of New Technologies



Outlook – How Competitive?

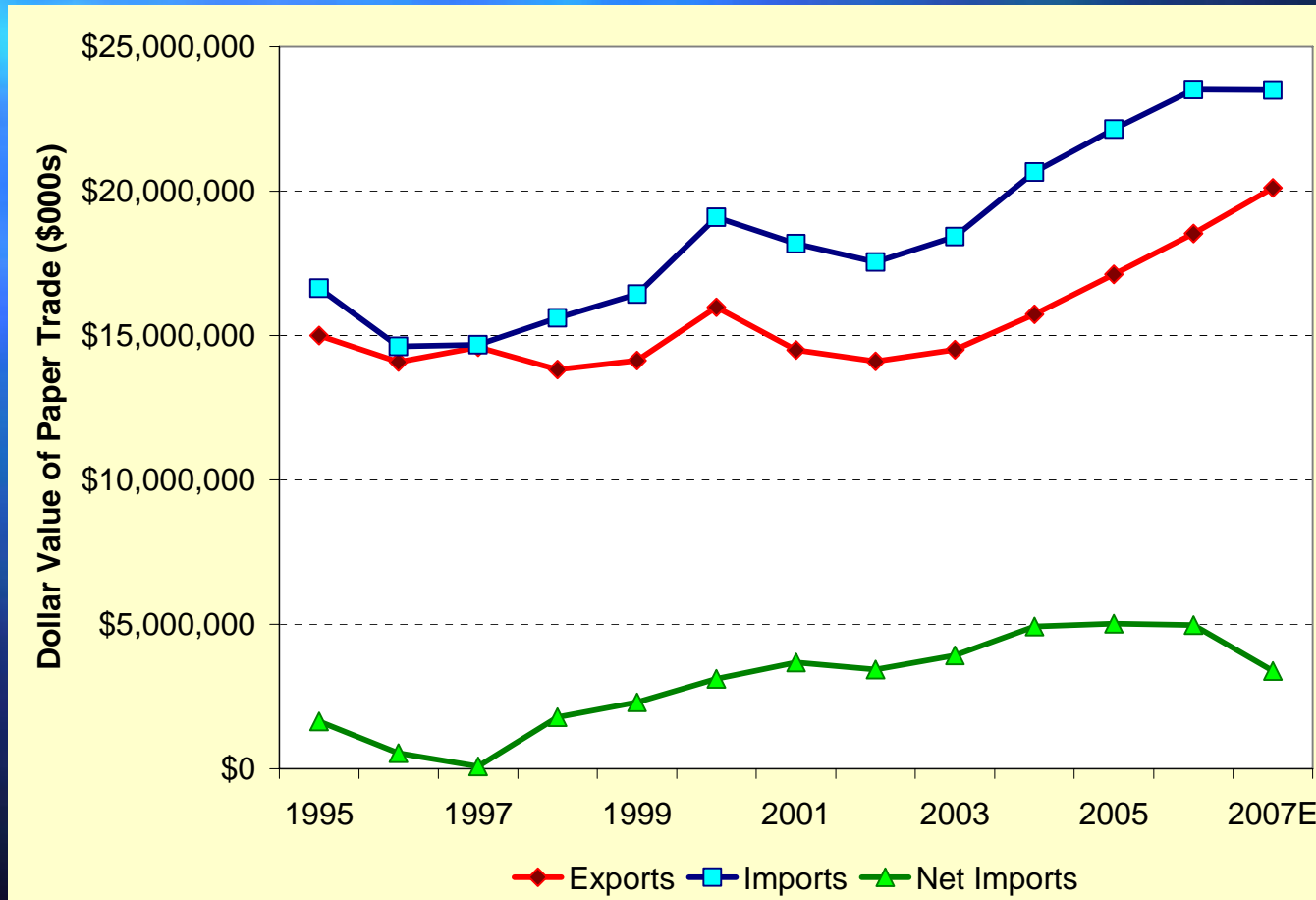
NA Producers Have Improved Asset Quality Through
Incremental Investment & Closure of Uncompetitive Lines

North American Paper Machine Lines

Characteristic (Median)	1999	2007	% Change
Age	53	41	-23%
Maximum Speed (fpm)	600	800	+33%
Width (inches)	174	240	+38%
Capacity (tons per day)	200	240	+20%

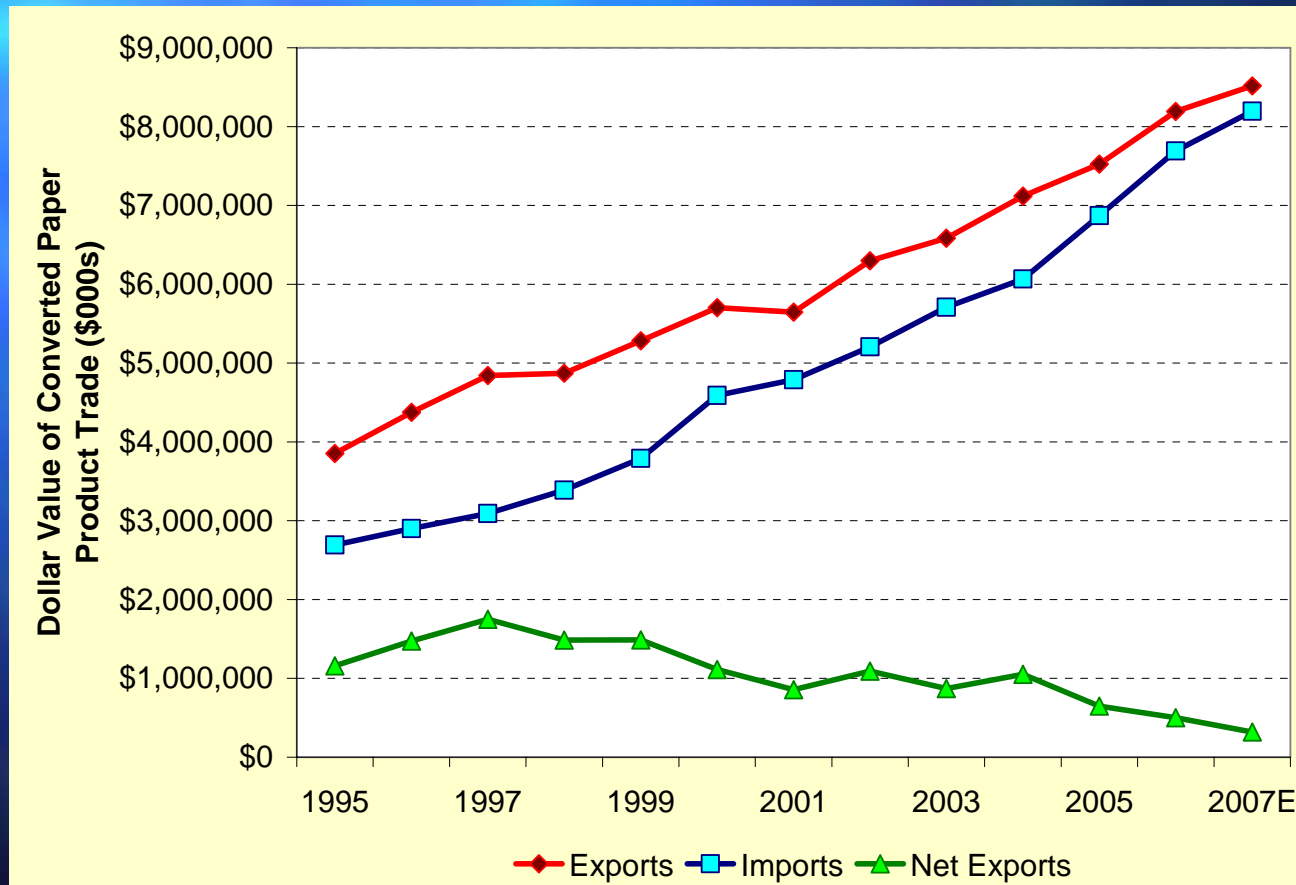
Outlook – How Competitive?

US Total Paper Product Export Growth Outpaced Imports – *Reducing Net Imports in 2007*



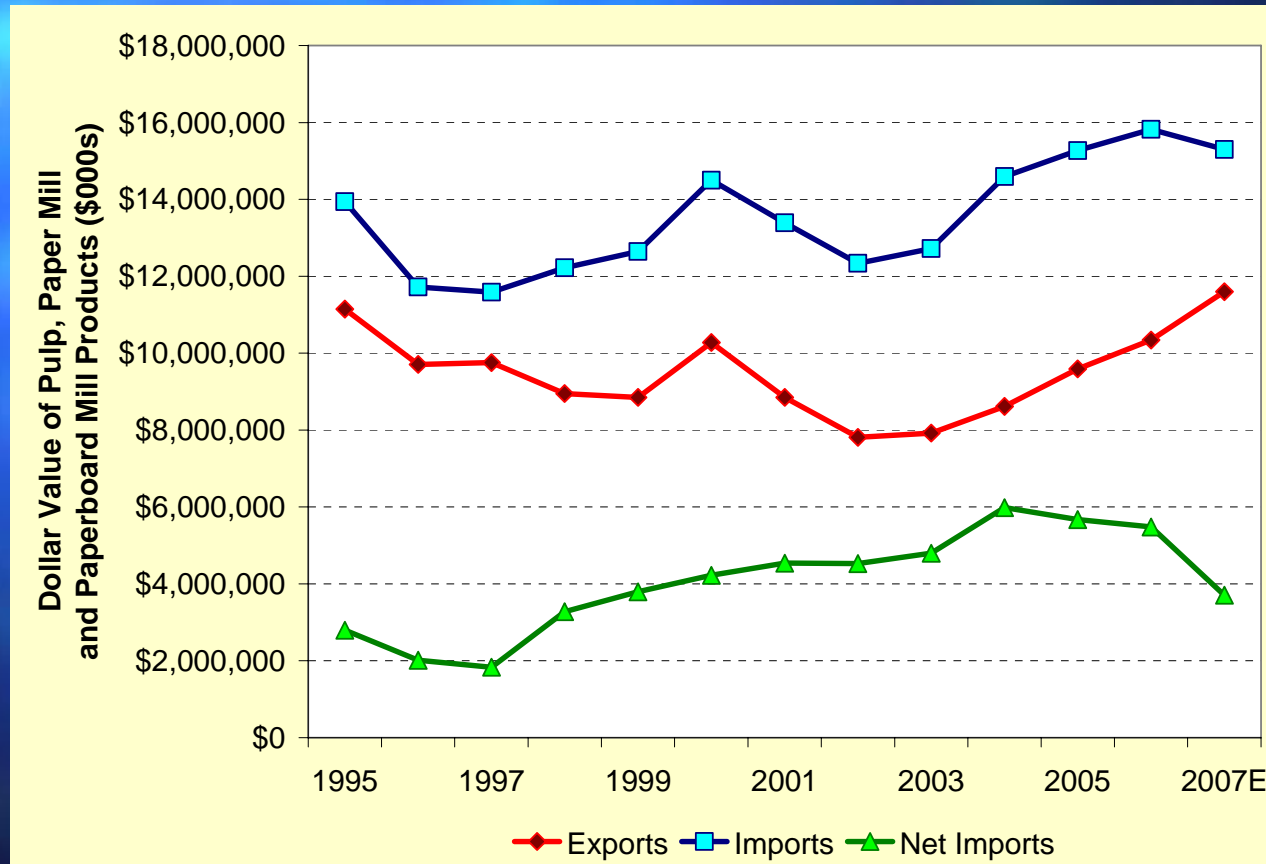
Outlook – How Competitive?

US Converted Paper Product Imports Are Growing Faster Than Exports – *Leading To Trade Parity*



Outlook – How Competitive?

US Primary Pulp and Paper Mill Product Exports Have Gained Ground *On Imports In Recent Years*



Outlook – How Competitive?

- The industry has had periods of strong and poor performance since the 1970s – yet even though it faces a continually tough business environment ~ *long-term improvements are truly possible*
- Yet, we need to be mindful of constraints ~
 - ✓ *High-volume grades substitution and global market place threats*
 - ✓ *Flattening cost curves of consolidated commodity grades*
 - ✓ *The current US economy is at risk for a recession*
- Also note that 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 bioenergy, nanotechnology, etc.*

Outlook – How Competitive?

Accordingly, participants must *and can* learn how to thrive

Individual companies *can* excel if they use the current upturn & 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 Slowing, *But 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%	4.0%
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%	+1.0%
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%

Outlook – Key Raw Materials

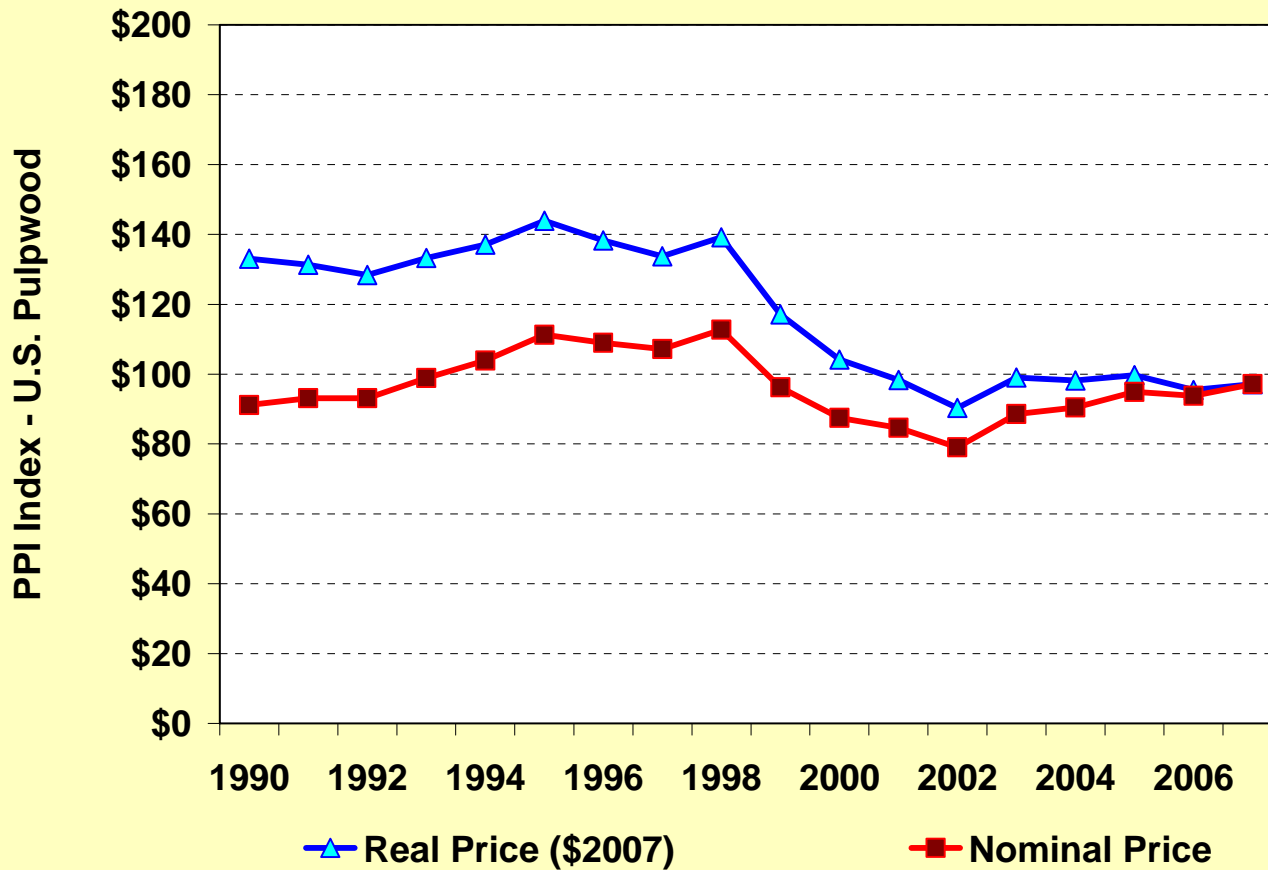
Pulpwood

Recovered Paper

Oil

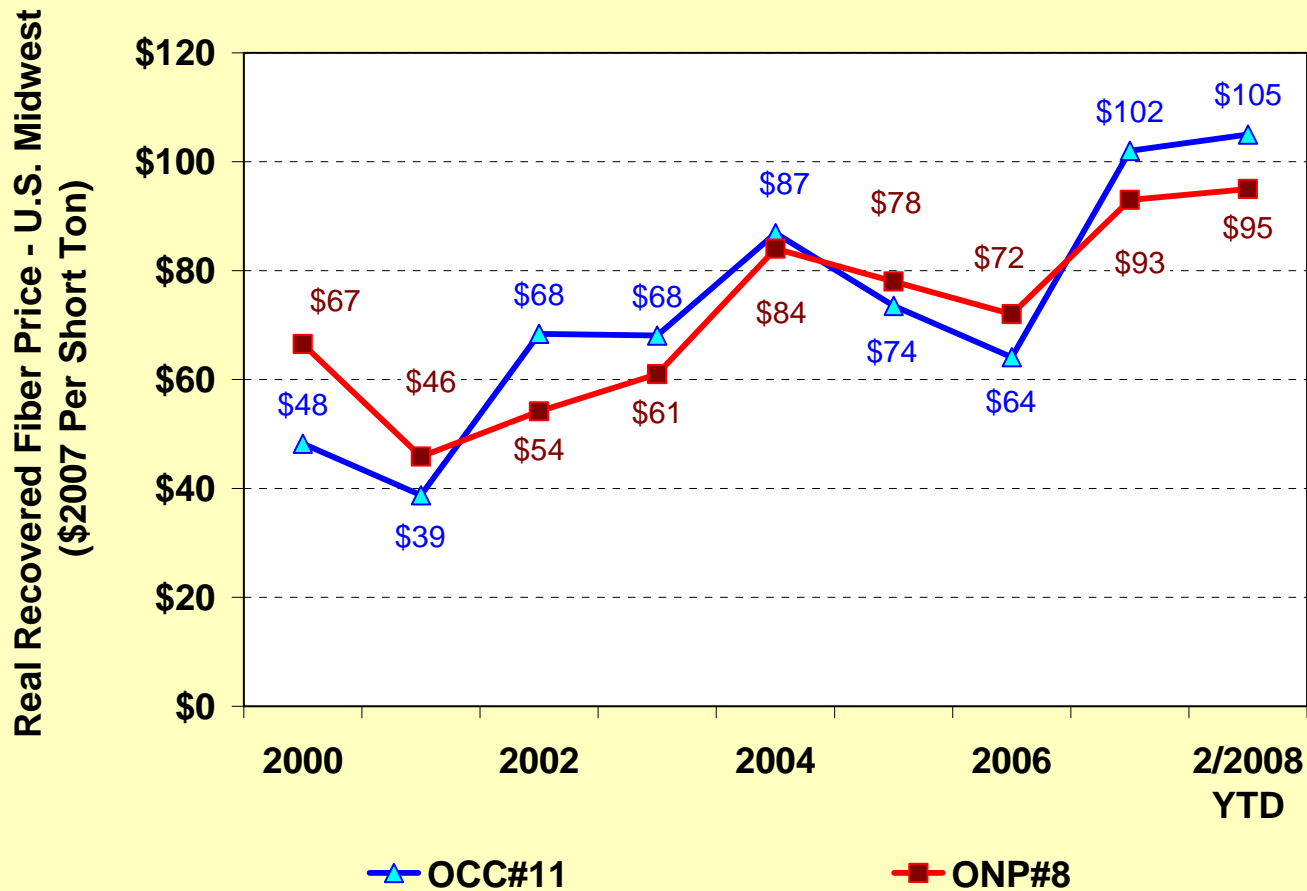
Natural Gas

Outlook – Pulpwood



**US Pulpwood
Prices:
Upward
Pressure &
Increased
Marginally
2007/08
*But Remain
Low By
Historic
Standards***

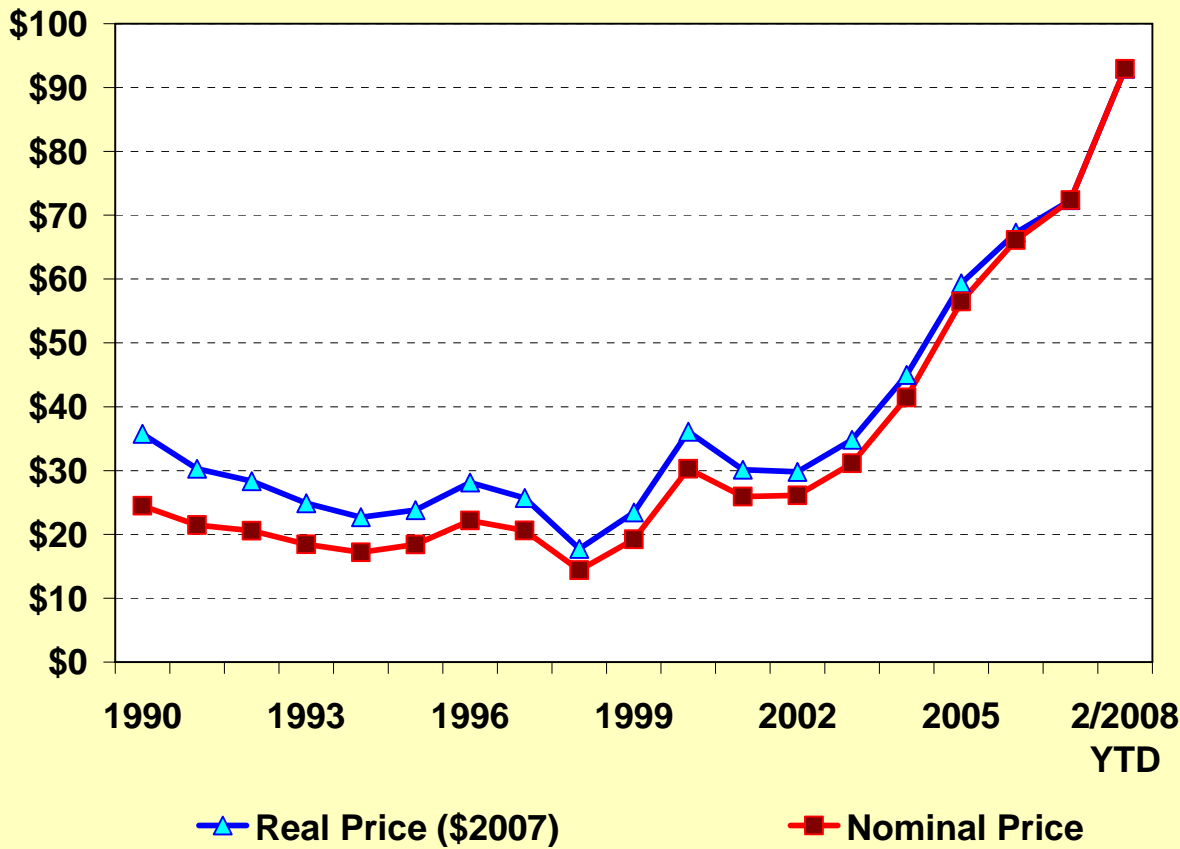
Outlook – Recovered Fiber



**Recovered
Fiber Prices:
*Rising With
Export
Demand &
Higher
Domestic
Consumption***

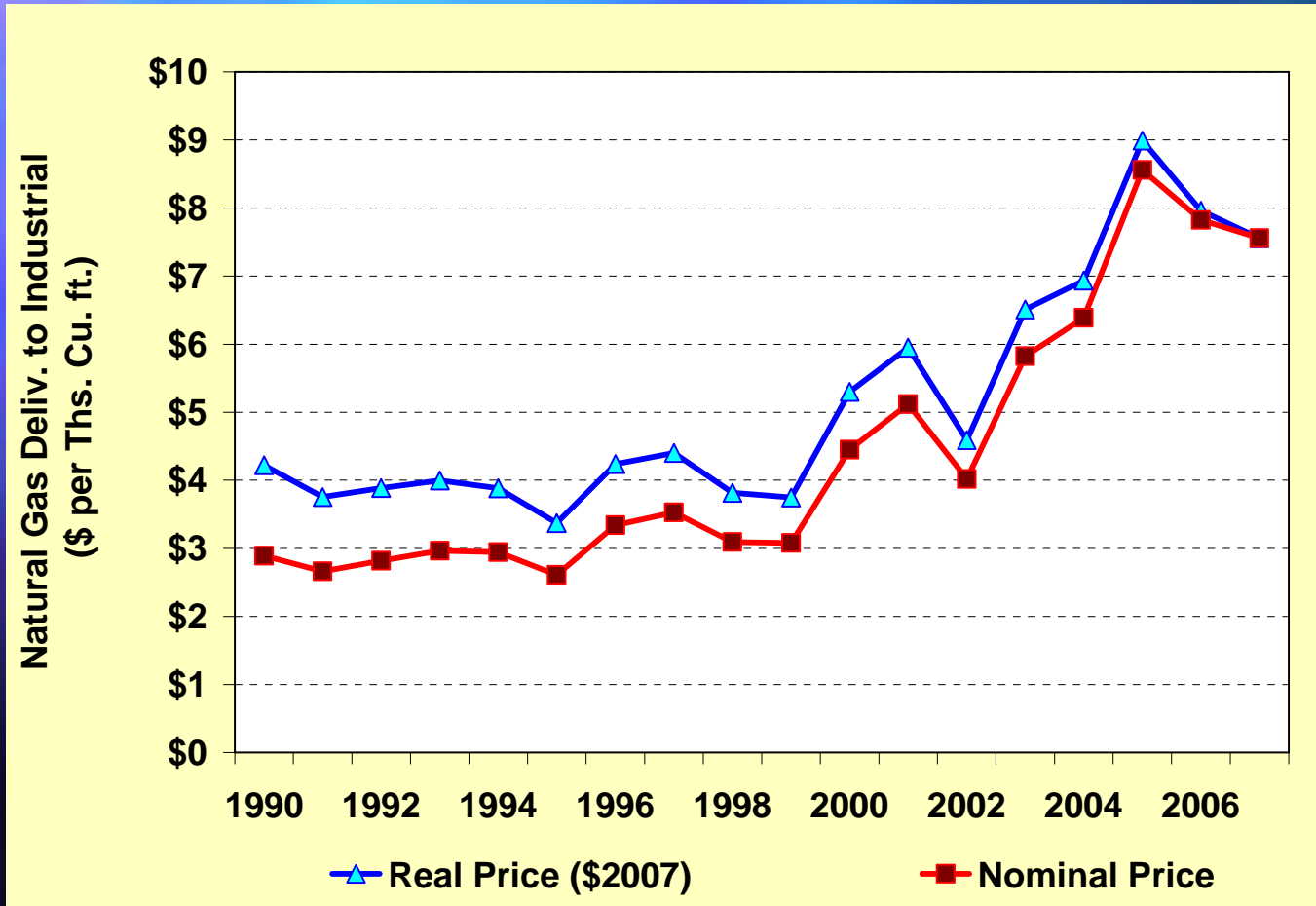
Outlook – Oil

Oil Price: Domestic West Texas Intermed.
(\$ per Bbl)



**\$90+ Bbl Oil
Puts Cost
Pressure on
Manufacturers
But
Dissuades
Use of Plastic
Packaging
Stimulating
Biofuels**

Outlook – Natural Gas



**\$7+ per MCF
Natural Gas
*Down From
2005 Peaks
But Remains
High By
Historic
Standards
Still High
Enough to
Stimulate
Biofuels***

Key Takeaways

Overall – *The NA Industry Has Performed Relatively Well* Over The Past Five To Six Years

But Industry Participants Will *Continue To Be Challenged* To Produce Strong Financial Performance In A *Slow Demand Growth* Environment

Rising Prices *Improve Profitability* But Can Suppress Future Demand

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 adequate but not compelling for a number of years*
- Improvements in recent years are a relief - yet are sensitive to *significantly capacity increases, managed or new*
- 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*
- There is **light on the horizon** - *however it is not yet assured - stay tuned ... And manage well*

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 to seize the opportunities instead of simply enjoying our respite – to refocus and restructure in new and novel ways

Contact Information

Thank You! ~Copies Available At

www.fairvalueadvisors.com ~ And ~ www.cpbis@gatech.edu

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