

State of the North American Pulp & Paper Industry – *An Update & Outlook* –



Unstable Times – Problems or Opportunities?

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Value Resolution Group – Dan Cenatempo AVA, CMC

Center for Paper Business and Industry Studies (CPBIS) – Jim McNutt

Overview

North America Pulp & Paper Industry -- *Update & Outlook*

- *Where are We?*
- *Industry Performance*
- *Economy*
- *Grade-By-Grade Discussion*
- *Industry Spending*
- *Investment Decisions' Drivers*
- *Wrap-up and Q&A*

Outlook – Where Are We?

- A combination of increased foreign competition, rise of substitutes and economic recession *drove down pulp and paper demand between 2000 and 2002*
- However, the North American pulp and paper industry is currently enjoying a modest cyclical rebound – *helped greatly by:*
 - *Recent years capital constraints & capacity rationalizations through in part significant industry capacity closures*
 - *Improving domestic economic conditions*
 - *A weakened US dollar*
- As a result -- supply is relatively in balance with demand and *pricing power shifted back towards paper producers*

Outlook – Where Are We?

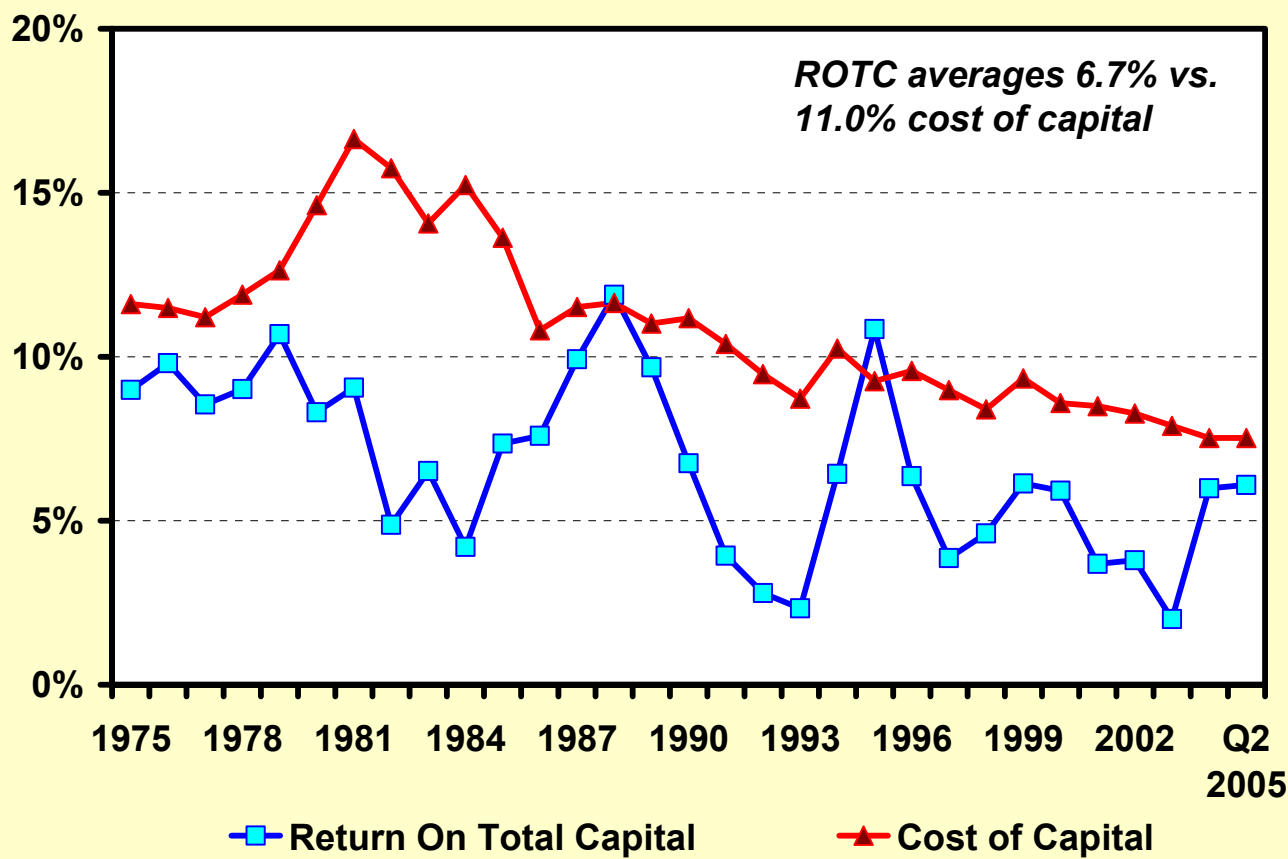
- But, this modest rebound is loosing momentum and risk remains from:
 - ✓ Slowing *domestic demand growth*
 - ✓ Rising *international competition – but some changes evolving*
 - ✓ Substitution *pressure from alternative substrates & medias*
 - ✓ Aging *domestic asset base – requiring investment attention*
 - ✓ Nagging poor -- but improving -- *financial performance*
 - ✓ Lure of pent up expansion plans *in an improving market – risks of past behavior still overhanging*
 - ✓ One time events -- *such as hurricanes Katrina, Rita & Wilma*

Outlook – Industry Performance

- Creating shareholder value *is the goal of the firm*
- Successful companies continuously identify and successfully execute investments *with returns greater than cost of capital*
- The industry has not made target returns and, therefore *not attracted necessary capital investment* – but this could be turning . . .
- Performance *has traditionally followed* excess capacity and pricing – yet – as noted – *we may be entering a new era here*
- And note that – *total shareholder returns have held up better* than some standard industry benchmarks

Industry performance and shareholder returns are improving but still below the level required by investors to make a fair return at this time . . .

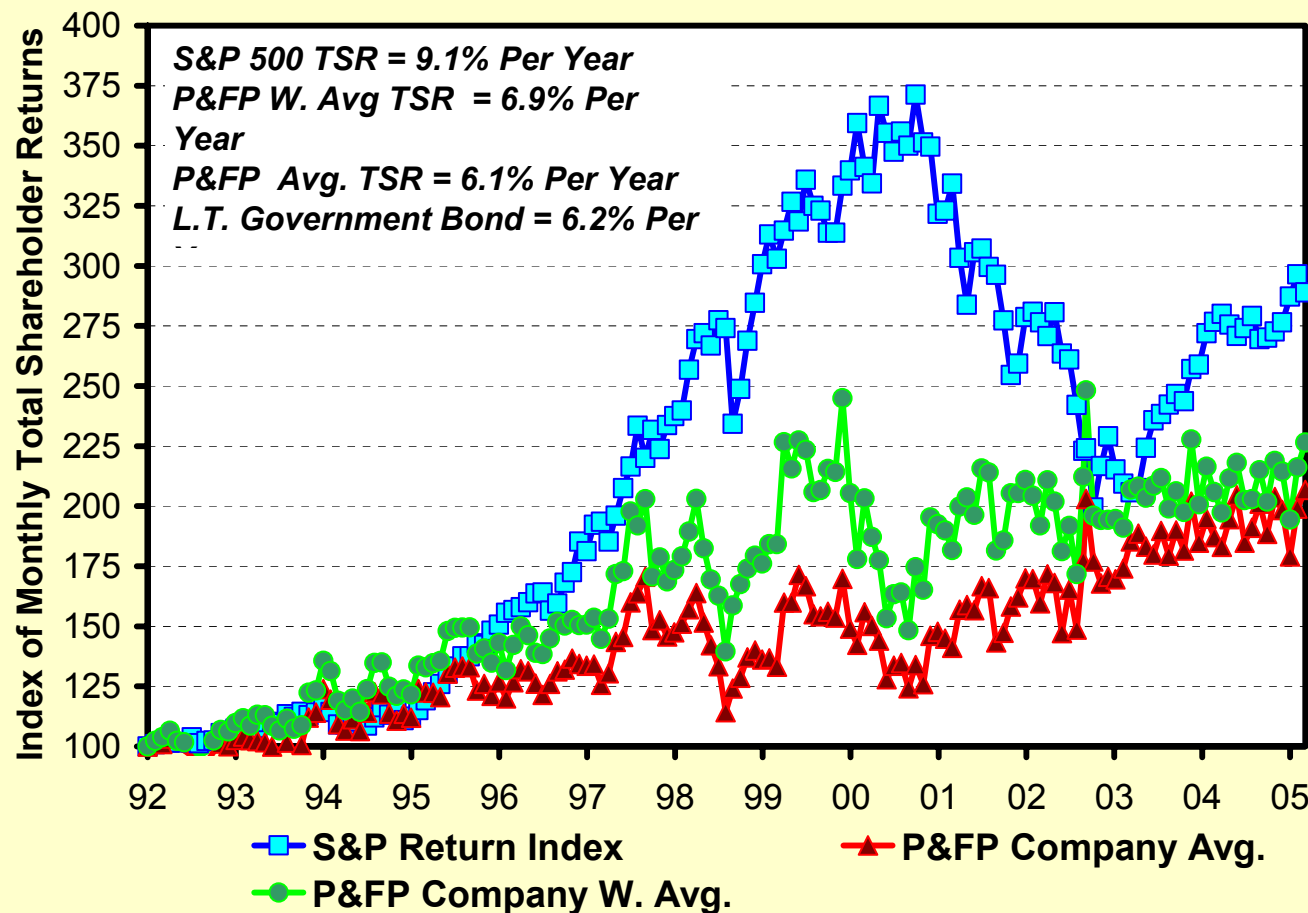
Outlook – Industry Performance



2005 Returns
 Are *Improving* –
 But Still 4 Points
 Below Target –
*Rational
 Investors Will
 Not Allocate
 Capital To A
 Poorly
 Performing
 Industry – Key
 Question = Is
 The Industry
 Situation
 Changing?*

Outlook – Industry Performance

Total Shareholders' Returns Still Trail S&P 500



The S&P 500 Rebound Still Leaves Pulp & Paper Industry Shareholders Wanting – Underperforming The Index By 2-3 Points Per Year Since 1992

Outlook – Industry Performance

Financial Performance

- US industry financial performance *has been poor on an absolute basis and persistently weak from the late 90's through today – But as noted -- we are seeing improvements*
- These short-term performance improvements are a welcome relief for the industry *but could be transient* if industry management is again tempted to significantly increase *major capacity oriented [instead of performance enhancing] capital investments*
- Further, *ongoing pulp and paper facility closures* will likely required to achieve improved financial performance.

Outlook -- The Economy

Real GDP Growth By Region	2002	2003	2004	2005
Advanced Economies				
US	1.9%	3.0%	4.4%	3.4%
Euro Area	0.8%	0.5%	2.2%	2.2%
Japan	-0.3%	2.5%	4.4%	2.3%
UK	1.8%	2.2%	3.4%	2.5%
Canada	3.4%	2.0%	2.9%	3.1%
Other Advanced Economies	3.6%	2.4%	4.3%	3.5%
Newly Industrialized Asian Economies	5.0%	3.0%	5.5%	4.0%
Other Emerging Markets				
Africa	3.5%	4.3%	4.5%	5.4%
Central and Eastern Europe	4.4%	4.5%	5.5%	4.8%
Commonwealth of Independent States	5.4%	7.8%	8.0%	6.6%
Developing Asia	6.6%	7.7%	7.6%	6.9%
Middle East	4.3%	6.0%	5.1%	4.8%
Latin America	-0.1%	1.8%	4.6%	3.6%

**Overall
Economic
Growth
Projections
*Do Favor
Continued
Demand
Growth In The
Industry***

Outlook -- The Economy

NA Sectors That Directly Drive Pulp & Paper Demand Are Projected To Be Weaker Than Overall GDP – But Remain Positive

Economic Indicator	Industry Segment Impacted	1990-1995	1995-2000	2000-2004	2005	2006-2010
Real GDP	All	2.5%	4.1%	2.5%	3.4%	3.0%
Implicit Price Deflator	All	2.4%	1.6%	1.9%	3.6%	2.2%
Personal Consumption Expenditures	All	2.6%	4.4%	3.2%	3.1%	2.8%
Industrial Production	All	3.5%	6.0%	0.1%	3.7%	2.5%
Indust. Prod. - Non-Durables	Containerboard	1.8%	1.3%	-0.6%	2.2%	0.9%
Indust. Prod. - Durables	Packaging	4.9%	9.5%	0.7%	5.7%	5.3%
Food & Beverage Sales	Boxboard	1.9%	3.2%	3.6%	5.0%	3.1%
Food services and drinking places	Tissue	4.8%	5.5%	6.3%	7.4%	2.9%
Computer & Peripheral Sales	P&W Papers	21.6%	5.2%	2.0%	15.0%	4.6%
Professional Employment & Business Services	P&W Papers, Tissue	3.4%	5.3%	-0.4%	3.4%	2.7%
US Households	Tissue, Building Products	1.2%	1.1%	0.2%	1.0%	1.0%
Housing Starts	Tissue, Building Products	2.5%	2.9%	5.5%	1.0%	-2.0%

Outlook -- The Economy

The Katrina – Rita – Wilma Economy Effect

- *Reduce 2006 GDP from 0.6 to 2.0 pts*
- *Sustain high or increase energy prices*
- *Increase risk of recession*
- *Likely to drive down volume and prices in paper, packaging and market pulp grades in 2005 / 2006*
- *Will offset falling pulpwood demand with enhanced demand for structural timber and engineered wood products.*

Outlook -- Grade-by-Grade Discussion

- North American Market
- NA Boxboard
- NA Containerboard
- NA Newsprint
- NA Printing & Writing Papers
- NA Market Pulp
- NA Tissue
- NA Recovered Fiber & Energy

Outlook -- NA Market Overview

- The North American Pulp and Paper industry is *a mature web of businesses* generally characterized by:
 - ✓ *Highest per capita consumption in world across all grades*
 - ✓ *Slower growth than real GDP*
 - ✓ *High capital intensity*
 - ✓ *Cost and price based competition*
 - ✓ *Below cost of capital returns*
 - ✓ *An aging asset base*
 - ✓ *Cyclical pricing and profitability.*

Historically, the North American industry expanded after each cyclical peak. Excess capacity was then been pushed onto international markets – *This pattern has finally changed.*

Outlook -- NA Market Overview

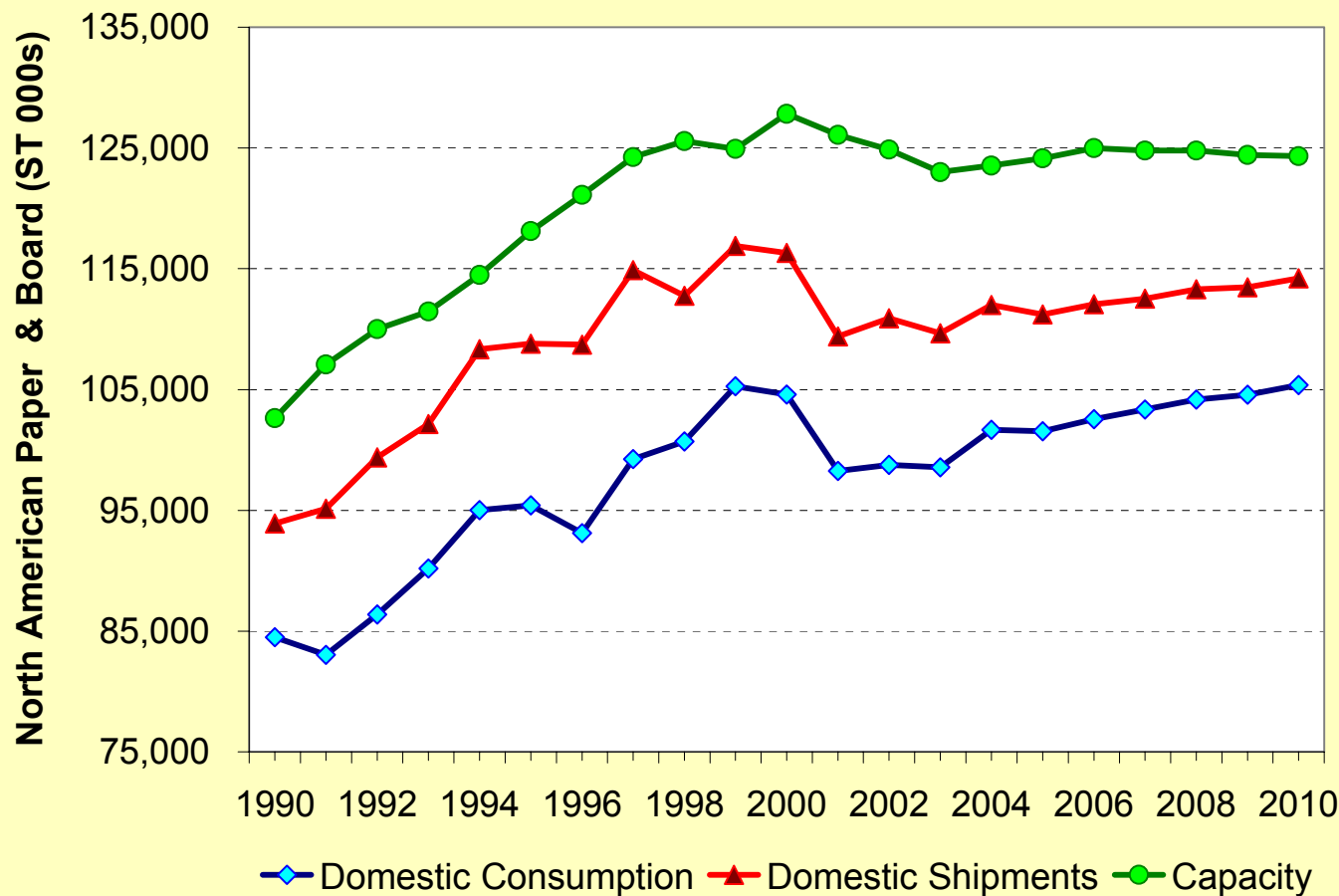
- Today the NA Industry business environment *has stabilized due to a combination of factors:*
 - ✓ *A weakening US dollar*
 - ✓ *Rebounding domestic demand*
 - ✓ *Improving returns*
 - ✓ *Weakening competitiveness of European producers*
 - ✓ *Moderating industry growth in developing regions*
 - ✓ *Better understanding by industry leaders of the role of capacity and spending management*
- This represents *a substantive change from the recent years of persistent weakening overall market place conditions and demand as well as industry performance*

Outlook -- NA Market Overview

- Consequently –
- *As noted the demand weakness and oversupply of the past years have begun to reverse, and*
- *Producers have been generally successful implementing price increases -- so far -- in this environment*

The net result is a cyclical upturn in the US pulp and paper industry that could reverse circa 2006 / 2007

Outlook -- NA Market Overview



**Total NA
Paper &
Board
Consumption
*Has Resumed
Growth –
While Overall
Capacity Is
Now
Relatively
Flat***

Outlook -- NA Market Overview

This has generated *a much needed breath of fresh air* for the NA Industry to take stock, and determine its path forward under more stable and positive circumstances . . .

Accordingly -- the North American industry *does have a window of opportunity to further restructure and innovate* to better compete in the changing global market looking out – but the business environment for such enhancement moves is transient – and time is likely essential.

Outlook – NA Market Overview

Grade Segment	Change in Capacity (Tons/Tonnes)		Compound Annual Growth Rate	
	2000- 2004	2005- 2010	1990- 2004	2005- 2010
NA Boxboard	-74	609	1.4%	1.0%
U.S. Containerboard	-1,292	1,516	1.7%	0.8%
NA Newsprint	-2,057	-2,328	-0.5%	-2.9%
NA Printing & Writing	-1,221	-51	1.7%	0.0%
NA Tissue	800	131	2.1%	0.2%
NA Market Pulp	-352	532	1.5%	0.5%

**Industry
Surveys And
Projections
Both Indicate
That *Capacity
Could Begin
To Grow Again
Between 2005
And 2010 – But
At A Much
Lower Than
Historic Rate
And From A
Reduced Base***

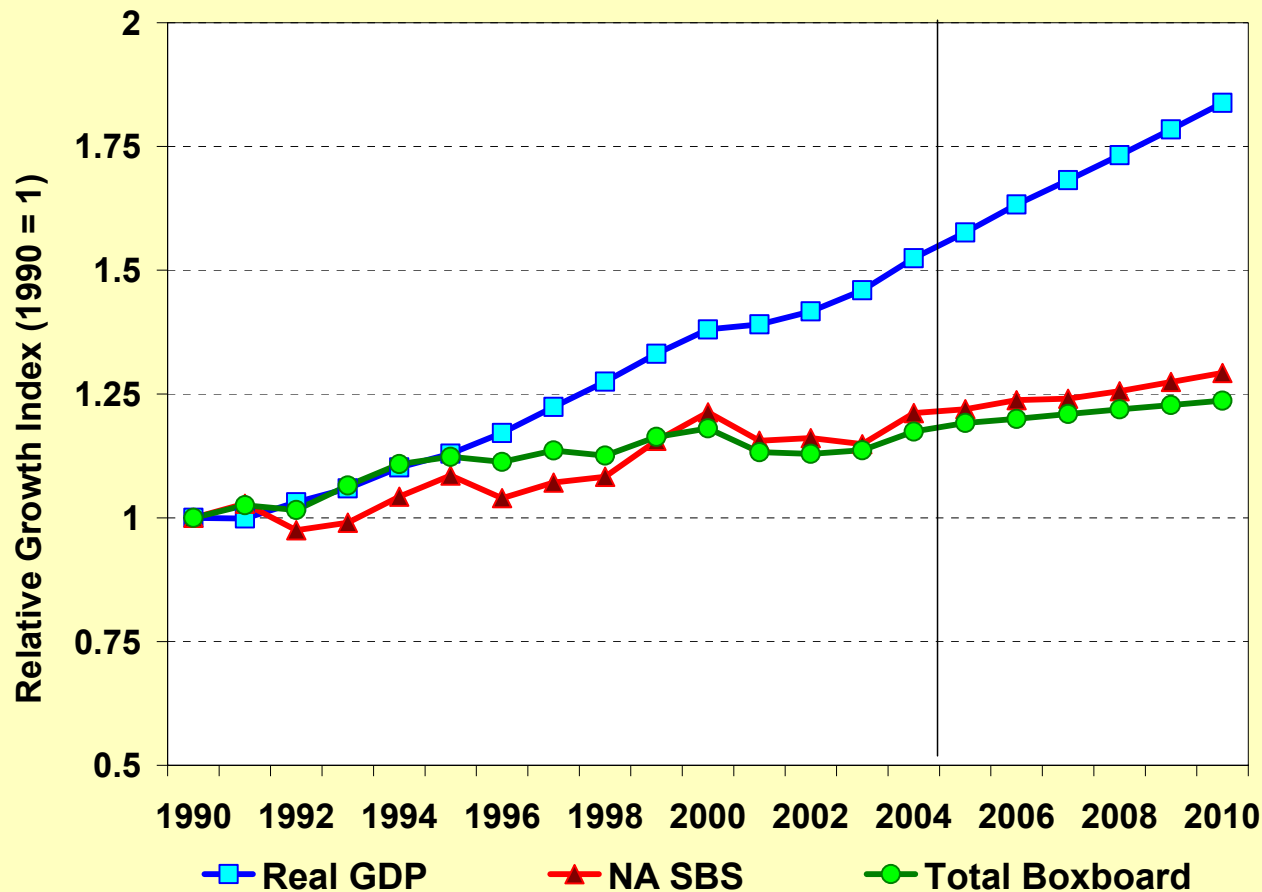
Outlook – NA Boxboard

Boxboard is a weak but stabilizing NA segment --

- *Slow growth in industries that consume boxboard, increased competition from overseas producers and widespread substitution by plastics and alternative packaging materials have hurt producers*
- *Profitability/returns are better than industry average despite these poor fundamentals due to a relatively concentrated supply base*
- *Facility closures have brought supply and demand in line*

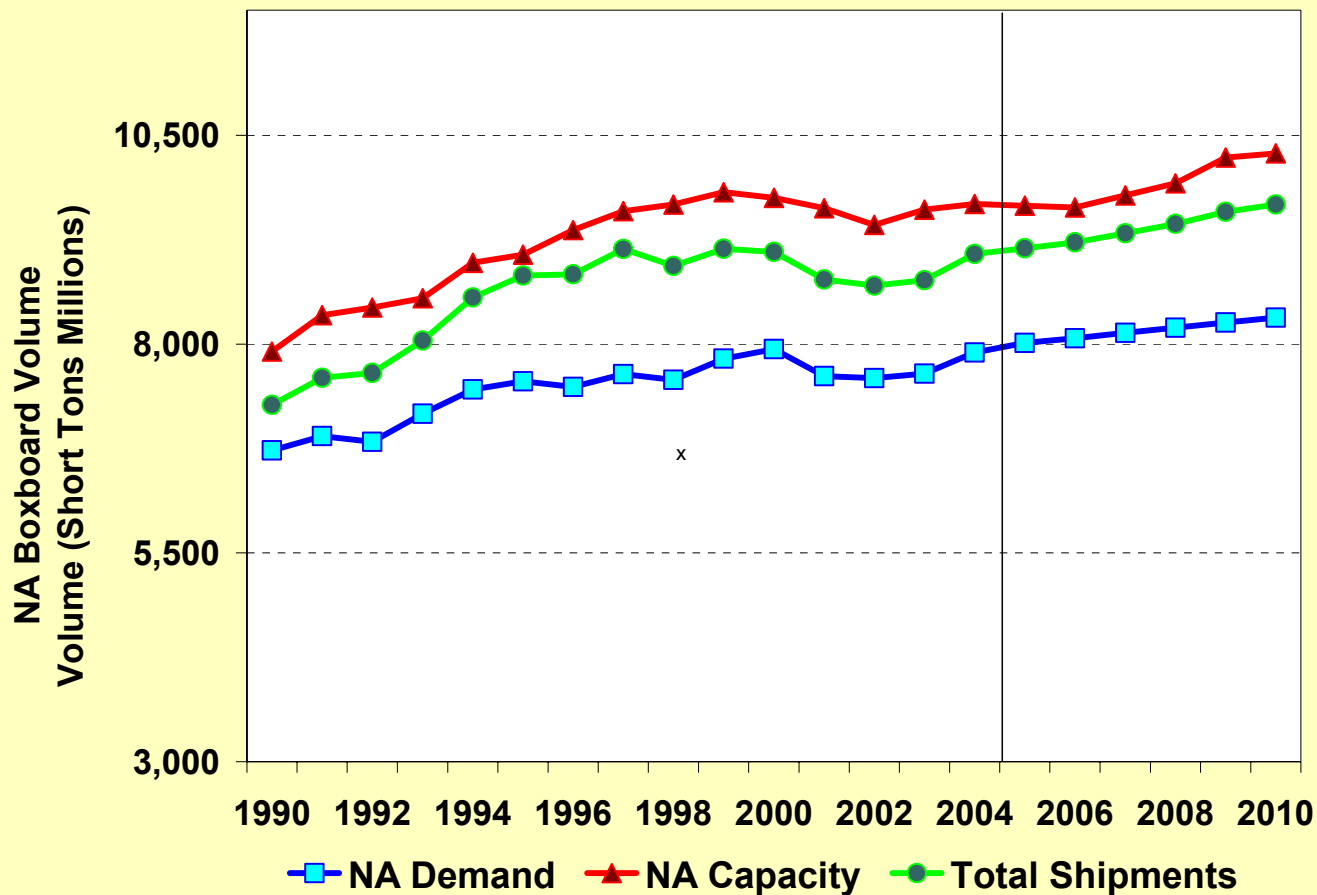
Implications: Slow capacity growth projected but relatively high risk of falling demand and additional facility closures.

Outlook – NA Boxboard



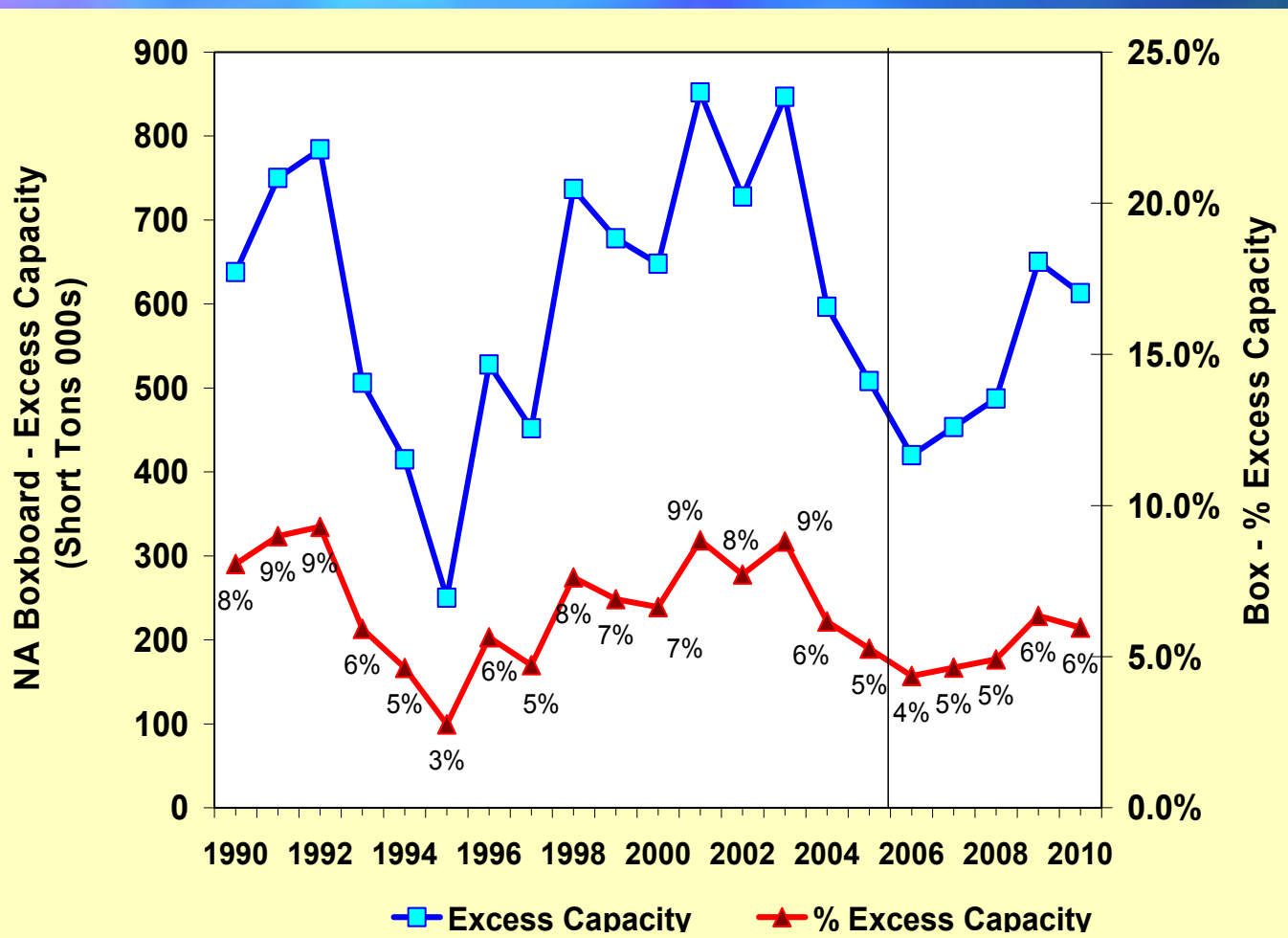
**NA
Boxboard
Demand
Growth Now
*Significantly
Lags GDP –
Bleached
Board
Growth
Slightly
Outpaces
Recycled***

Outlook – NA Boxboard



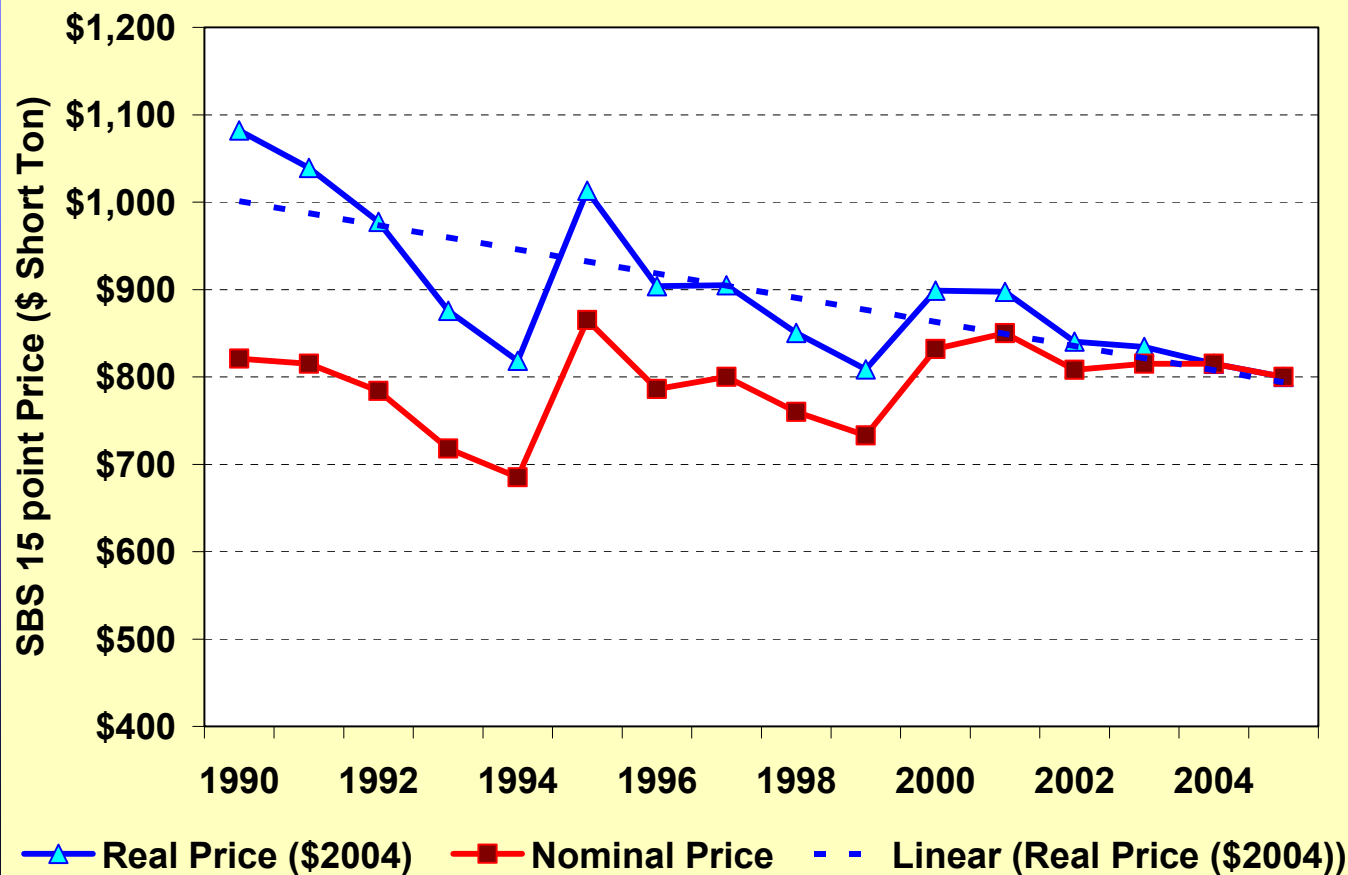
Both Demand And Supply Have Resumed Growth But Will Take Several Years To Reach Historic Levels

Outlook – NA Boxboard



NA Boxboard
Has Consolidated & Reduced Excess Capacity – But Will Be Tempted To Add Capacity In The Out-years If Demand Continues To Grow

Outlook – NA Boxboard



The Recent Rebound In NA Prices Is Faltering –
Long-term Prices Continue To Trend Downwards

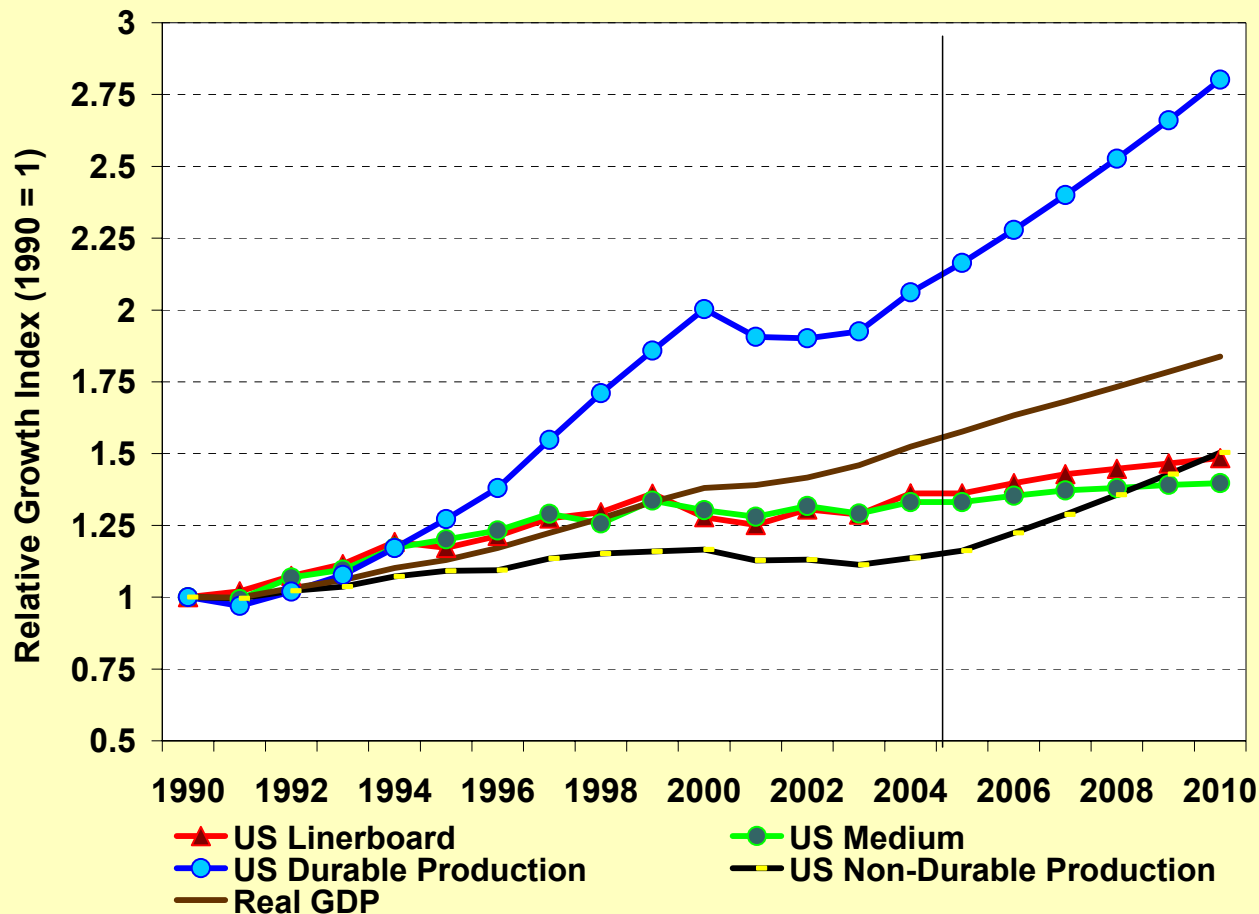
Outlook – NA Containerboard

This NA Containerboard segment has undergone one of the most extensive restructurings within the industry --

- Concentration of top producers *has gone from one of the lowest to highest in the industry* – improved capacity utilization and expansion discipline has followed
- Further acquisitions by large players *will be difficult*
- However, *NA producers have lost export market* to new overseas capacity, especially in China and Germany
- Profitability and returns are *lower than industry average*
- Slack capacity *absorbed quickly* with improved economy

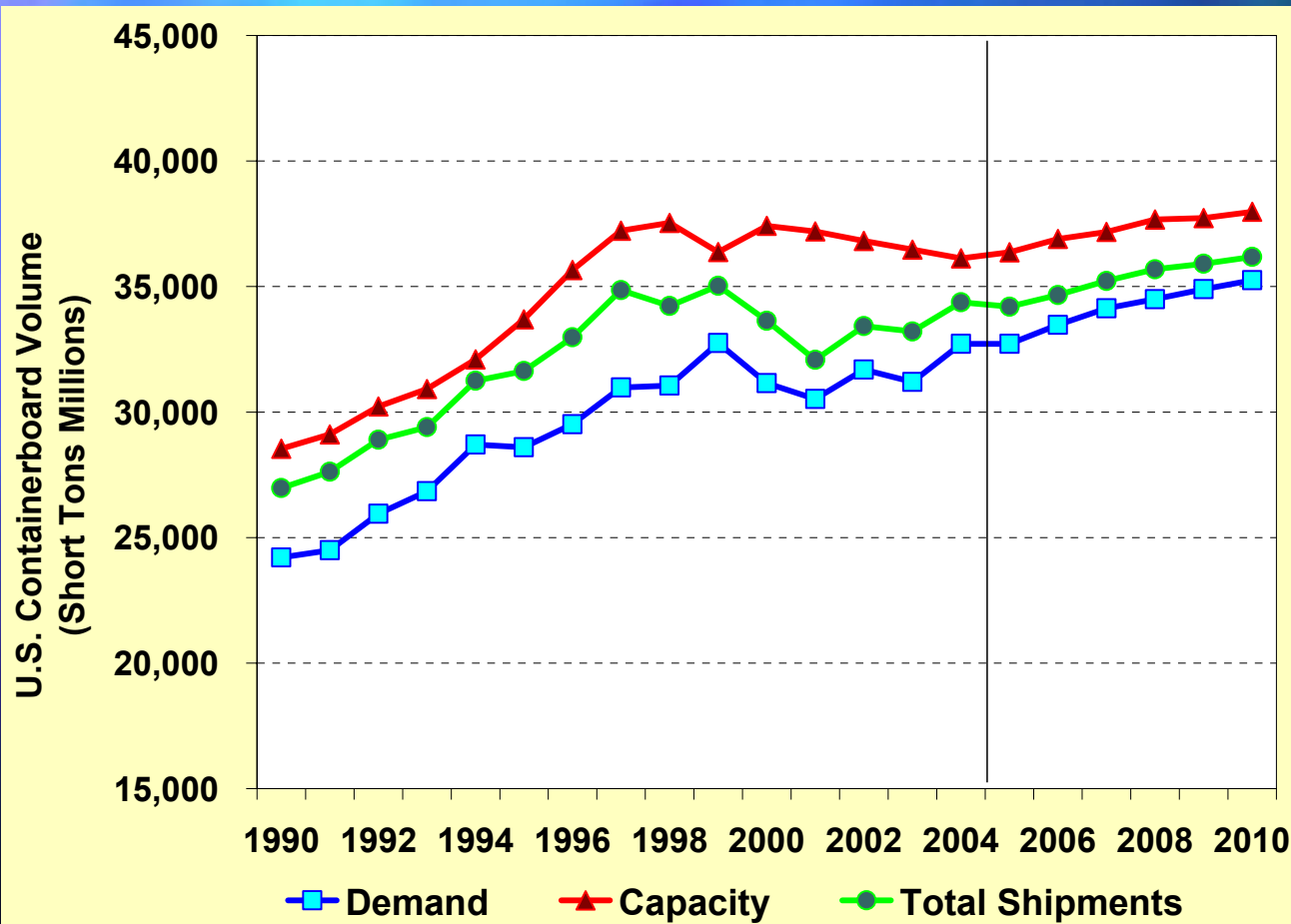
Implications: Producers are expected to grow capacity slowly with demand – risks of further closures persist from loss of volume in export markets and to substitutes.

Outlook – NA Containerboard



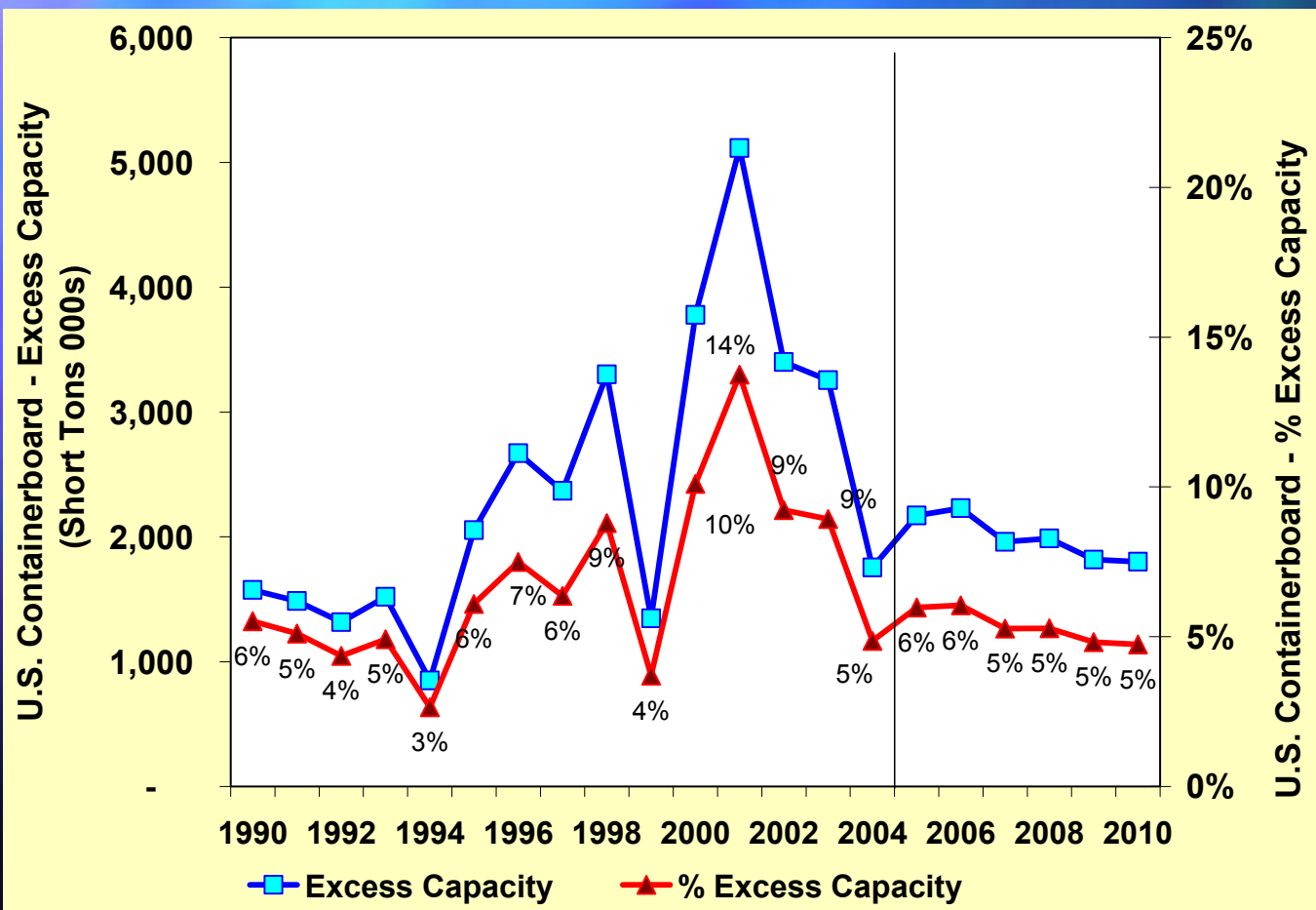
NA Containerboard Demand Continues To Grow At A Rate Closely Tied To Domestic *Non-Durables* and *Durables* Production

Outlook – NA Containerboard



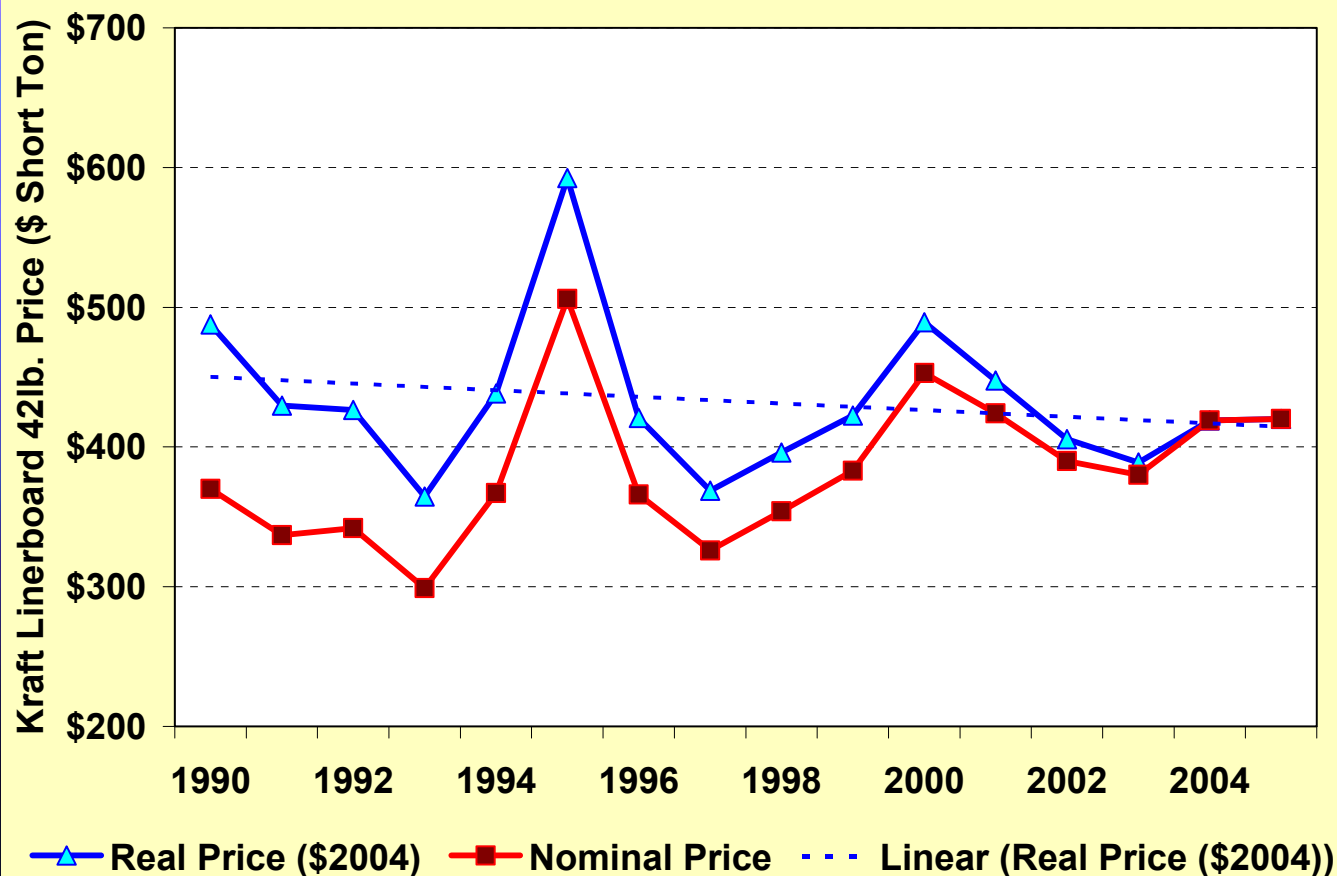
**NA Capacity
Is Expected
To Be Well
Controlled
Relative To
Demand**

Outlook – NA Containerboard



**NA
Container-
board's
*Excess
Capacity Is
Now
Relatively In
Balance***

Outlook – NA Containerboard



NA Capacity
 Reductions
 Helped
 Containerboard
 Producers
 Maintain &
 Prices – *But*
Normal Profits
Are Not Yet
Being
Generated

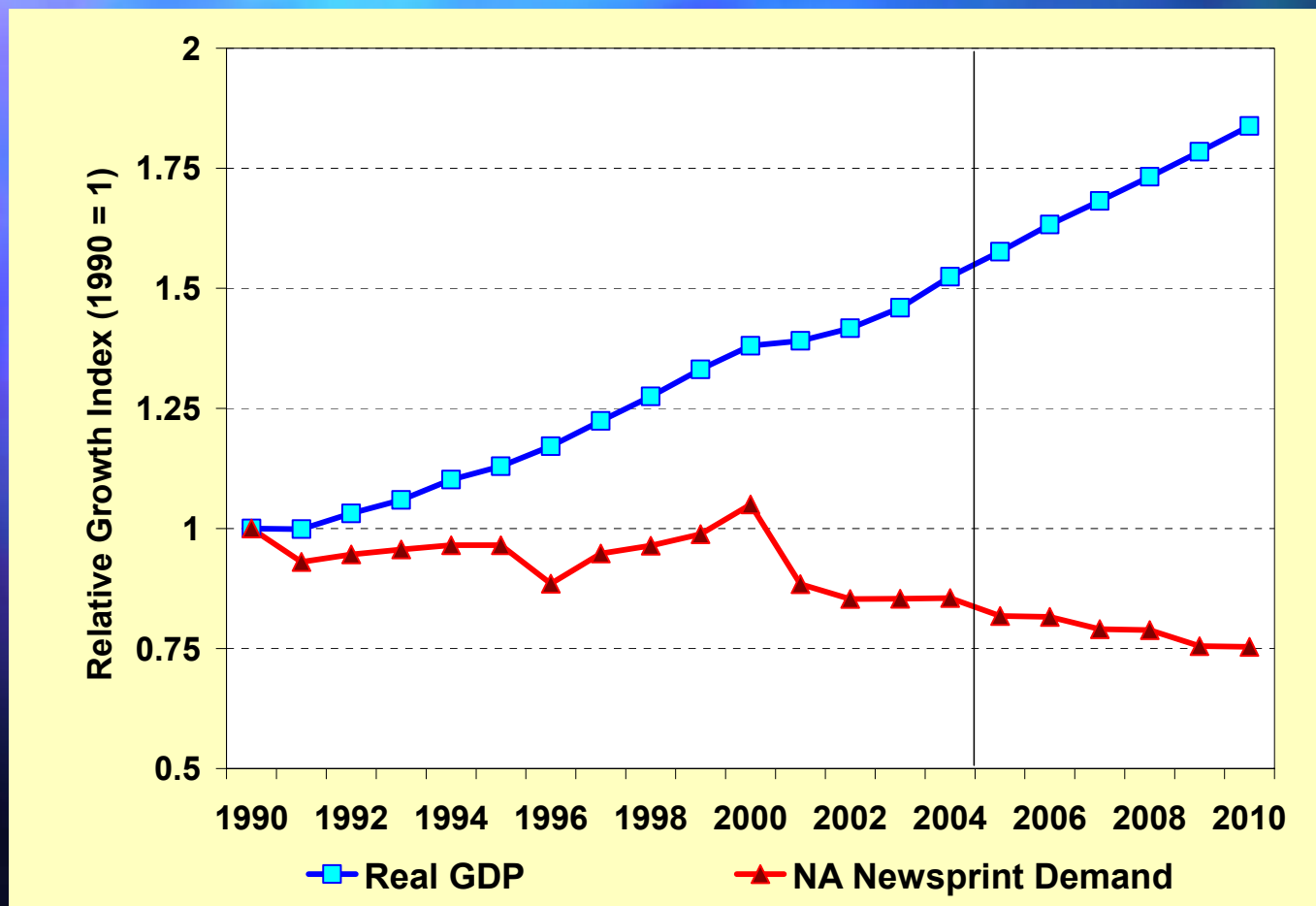
Outlook – NA Newsprint

Newsprint is the *weakest overall industry NA segment* --

- Short-term publishing and printing declines have been exacerbated *by substitution to alternative media*
- National and local papers continue to *reduce page size*
- Newsprint *is in decline* in the long-term
- Opportunities for further consolidation exist and *significant capacity reductions and grade conversions will continue . . .*

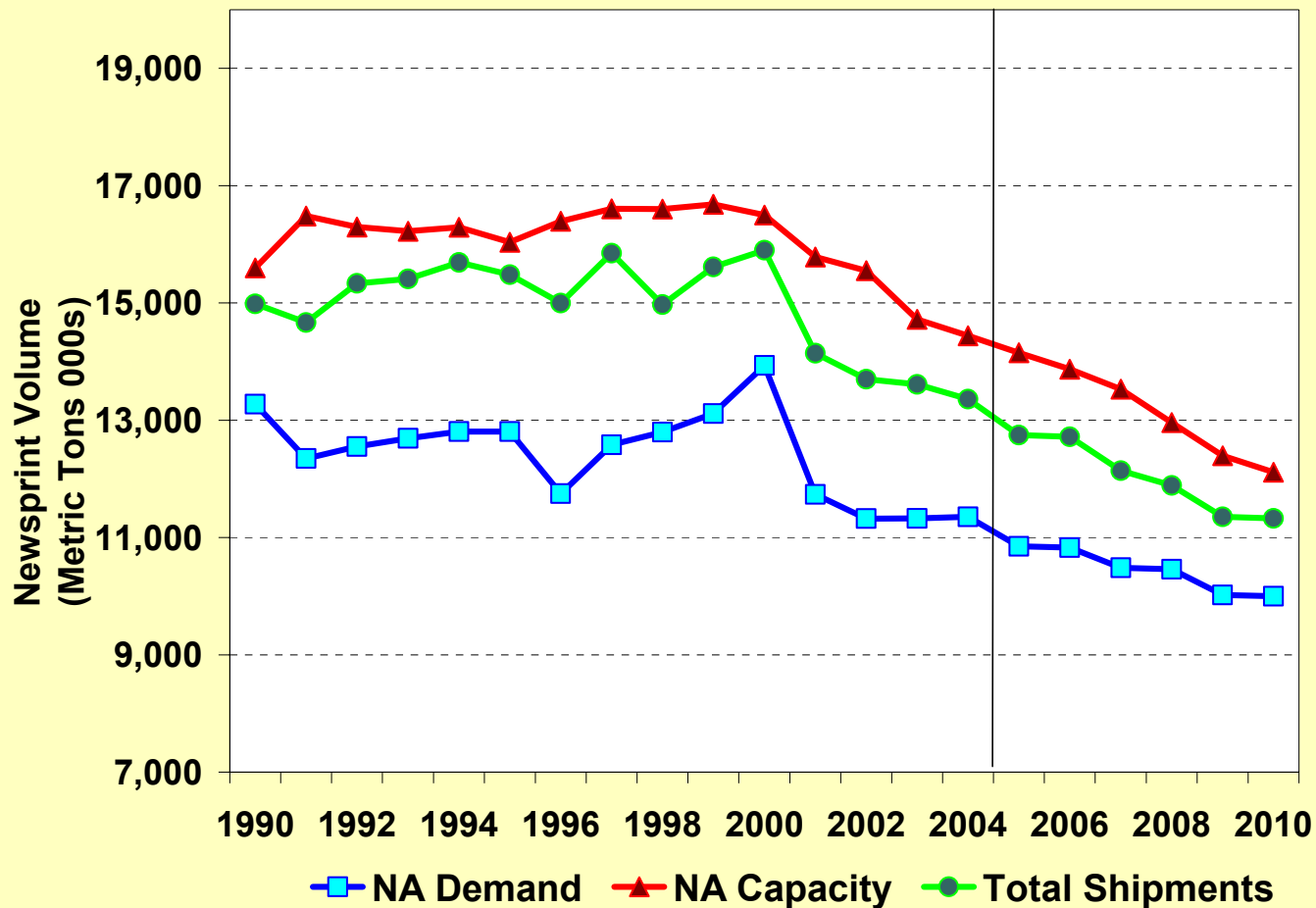
Implications: Rational players will spend a minimum of capital and seek value added grade conversions. *No new NA Newsprint mills are likely to be built -- at least by rational sector players . . .*

Outlook – NA Newsprint



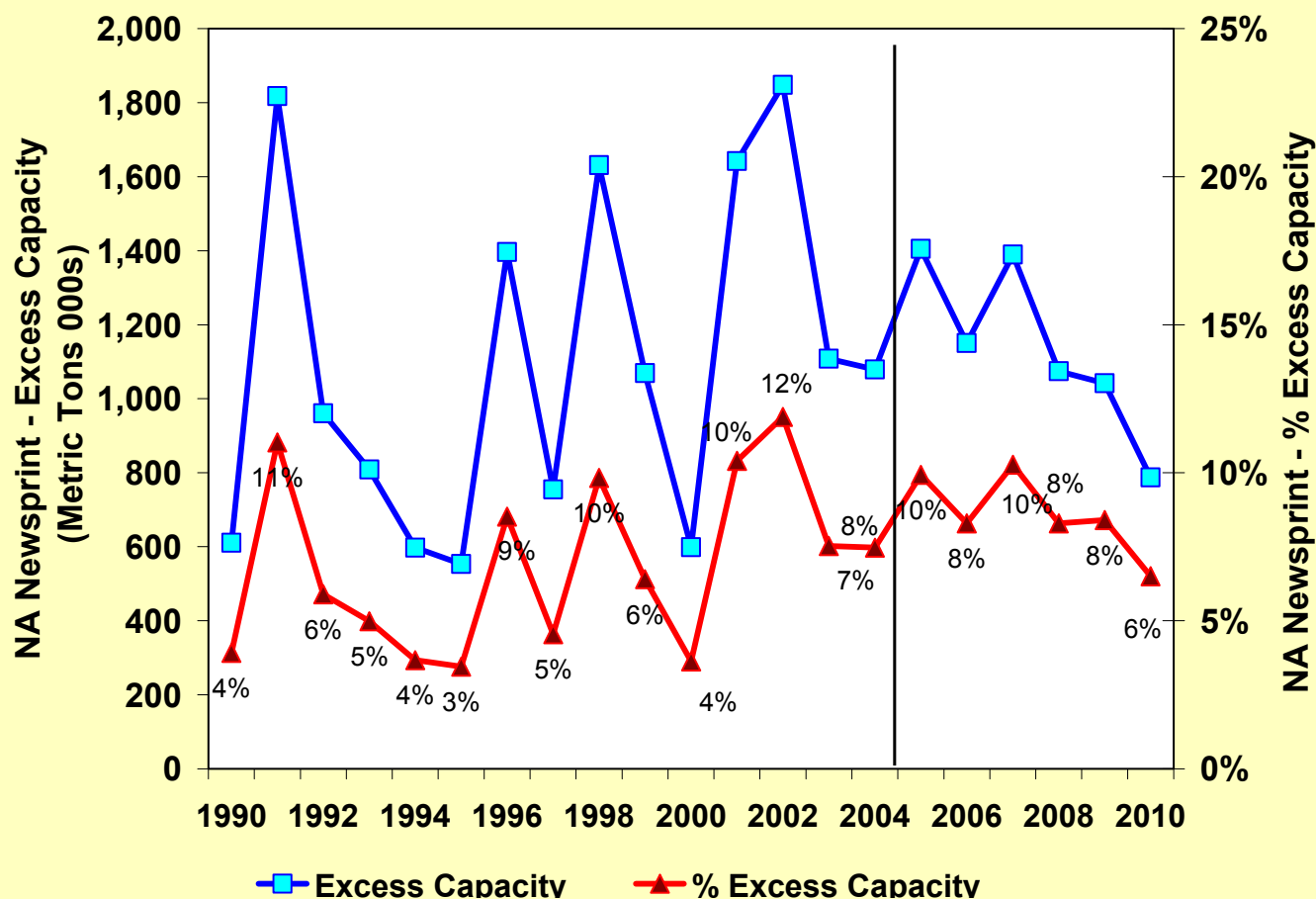
NA Newsprint Is A Declining Segment In Long-Term – A Short- to Mid- Term Improvement May Occur But Is Not Projected

Outlook – NA Newsprint



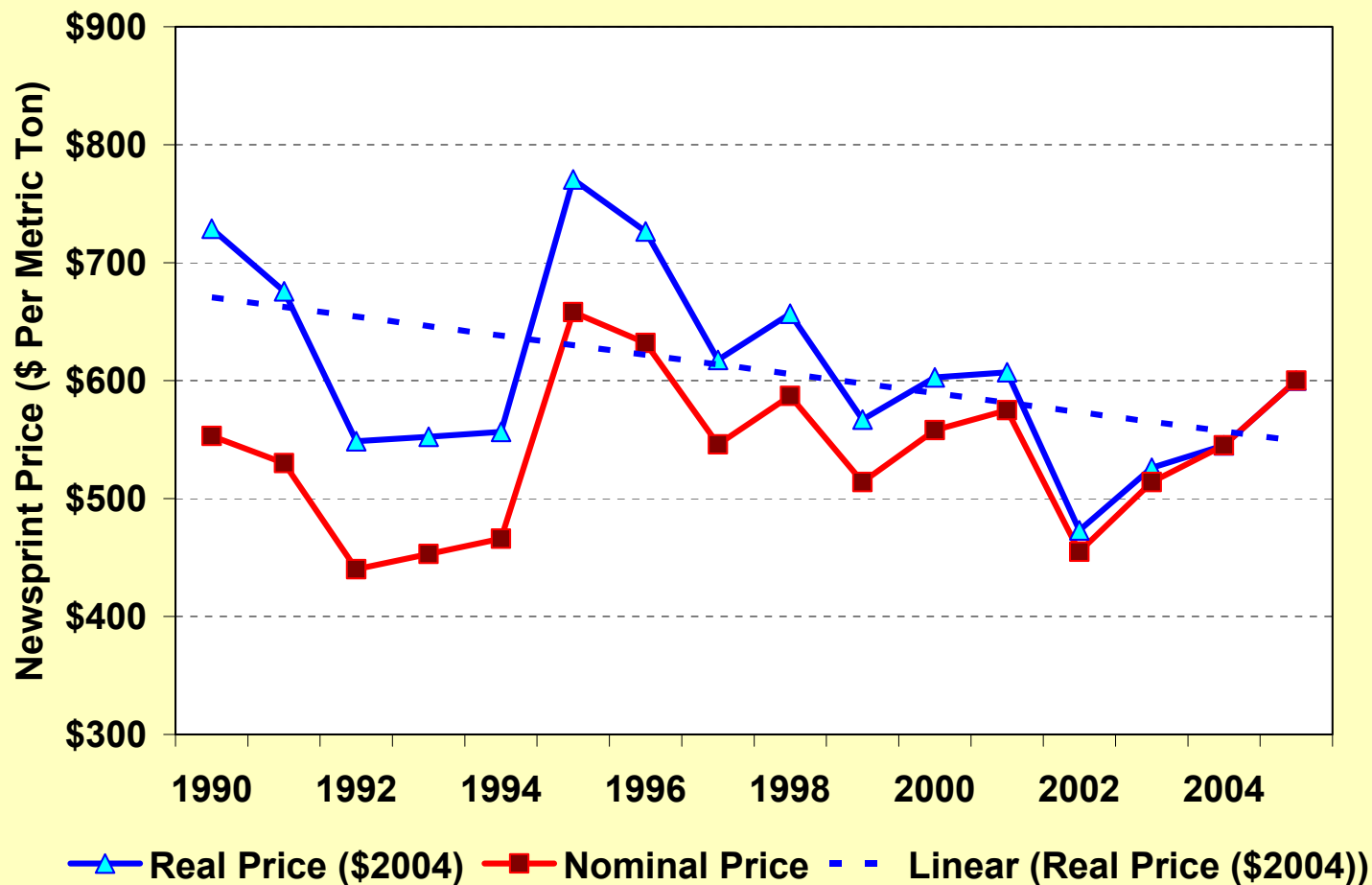
**Demand,
Capacity,
Exports, &
Shipments
Are All
Sliding
Downward
At A
Relatively
Quick Rate**

Outlook – NA Newsprint



The Supply And Demand Situation *Has Improved But Excess Capacity Remains*

Outlook – NA Newsprint



**Capacity
Reductions
Have
Helped
Boost
Prices --
*But A
Strong
Downward
Trend
Persists***

Outlook – NA P&W Papers

Recent *economic slowdown & alternative media substitution* have impacted P&W demand negatively --

- Uncompetitive *capacity being closed* & modest demand increases will tend to reign in excess capacity
- CF, CGW, UCF & GW Grades *have seemingly collapsed* into one relatively inter-changeable/somewhat flexible grade structure *from consumers' perspectives*
- In this context -- CF quickly became commoditized -- displaced by improved CGW grades – *changes still expected*

Implications: Significant repositioning / redeployment of assets – continued M&A & financial constraints.

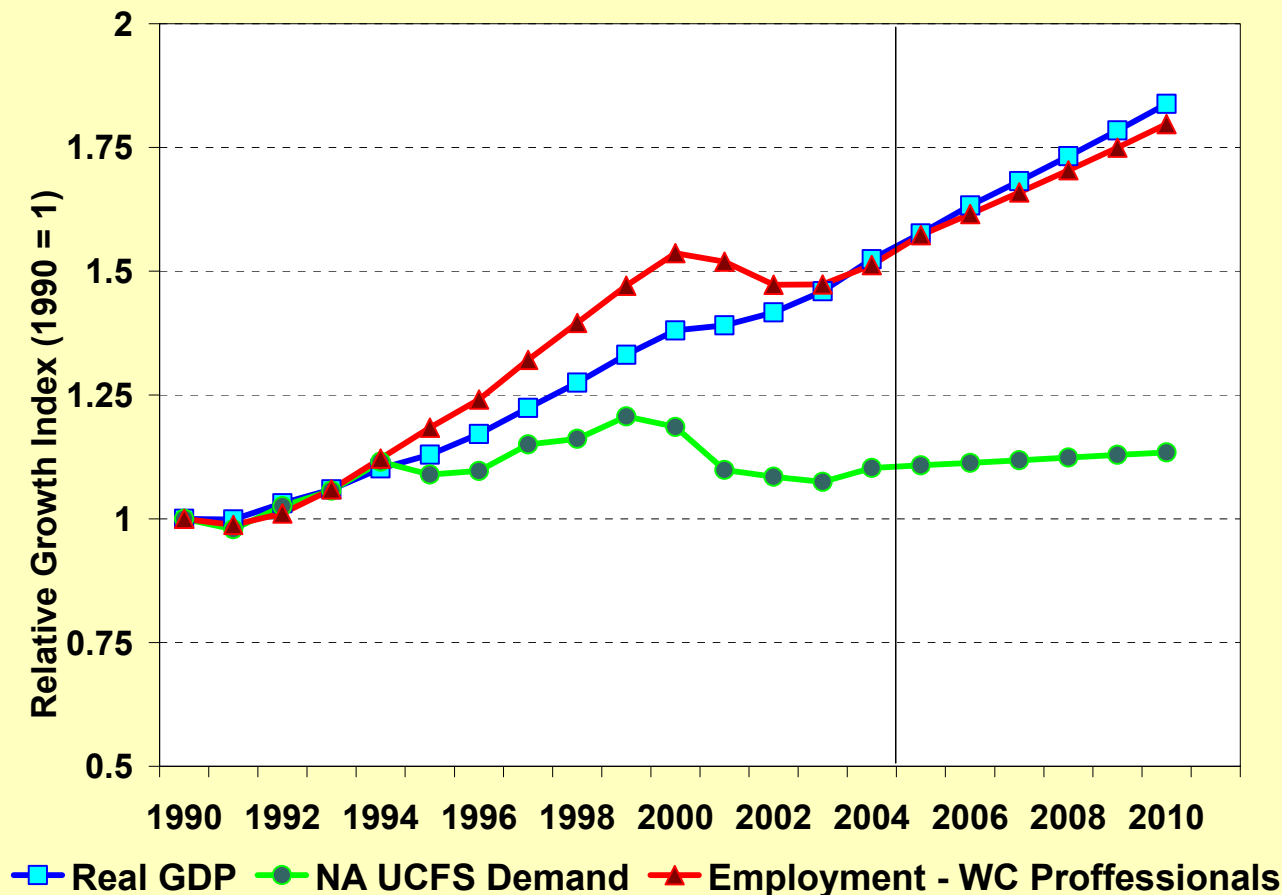
Outlook – NA P&W Papers (cont.)

In addition -- high end uses -- auto brochures/annual reports -- are being replaced by website versions

- High volume UCF under pressure from overseas competitors, and Newsprint producers *are converting capacity to UC and CGW grades* creating serious downstream pressures for UCF across time
- Financial returns & growth prospects *are similar to industry average & room exists for continued M&A activity*

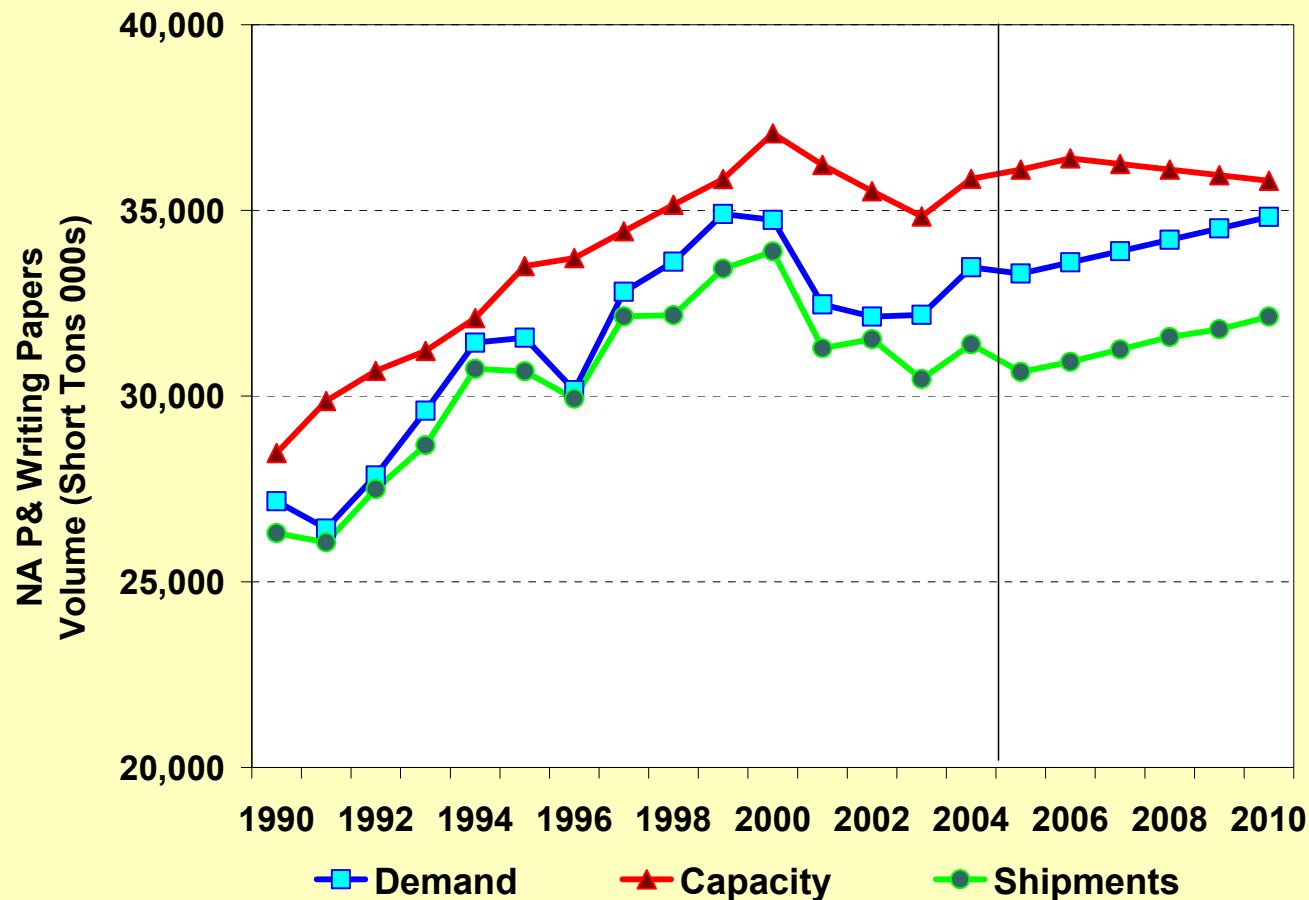
Implications: Certain segments will suffer net capacity reductions and the grade turmoil will continue to create an unstable overall grade-to-grade business environment.

Outlook – NA P&W Papers



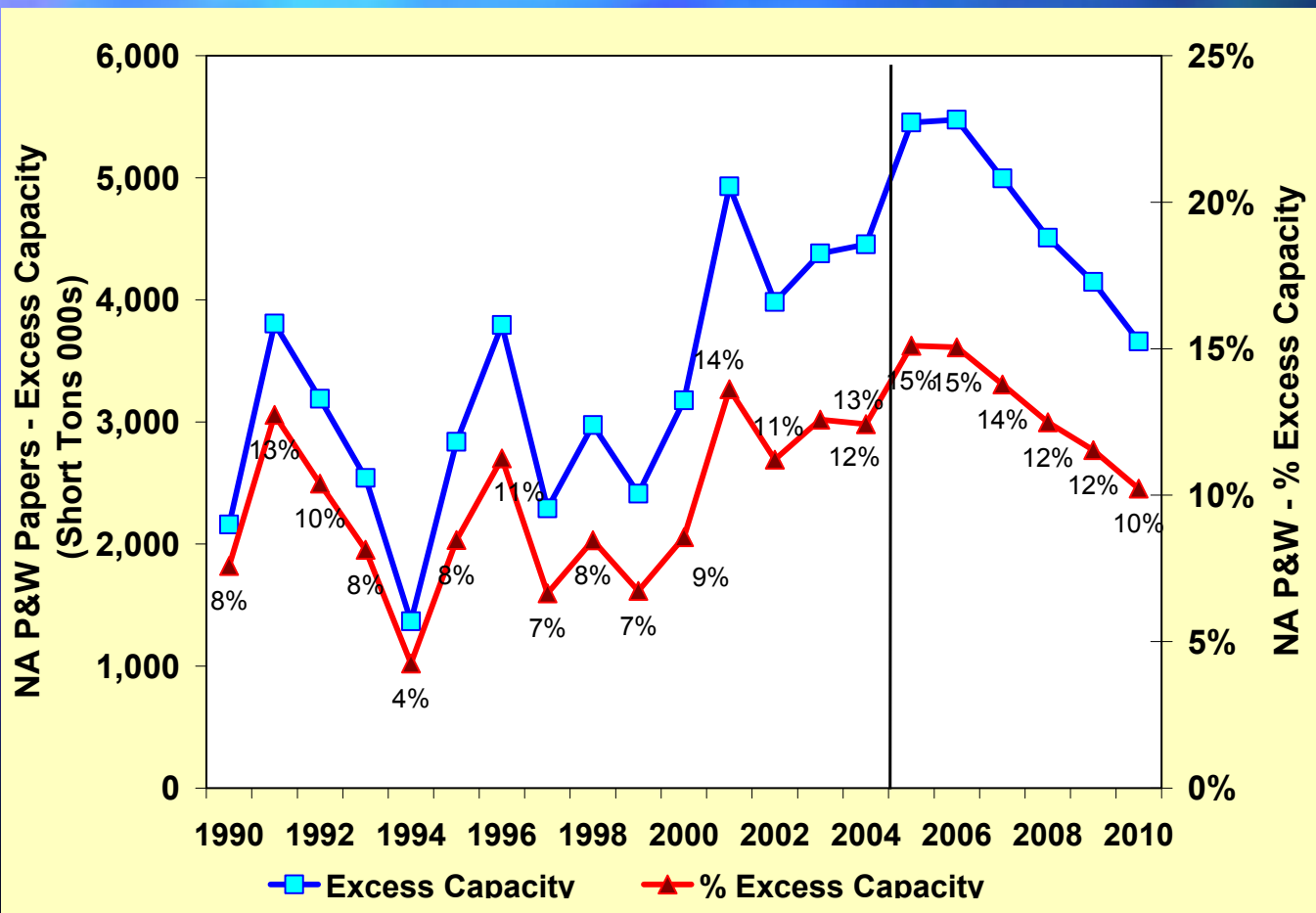
**P&W Paper
Demand
Fundamentals
Began To
Change In The
Mid-1990s –
Minimal And
Risky Growth
Is Expected
Going
Forward**

Outlook – NA P&W Papers



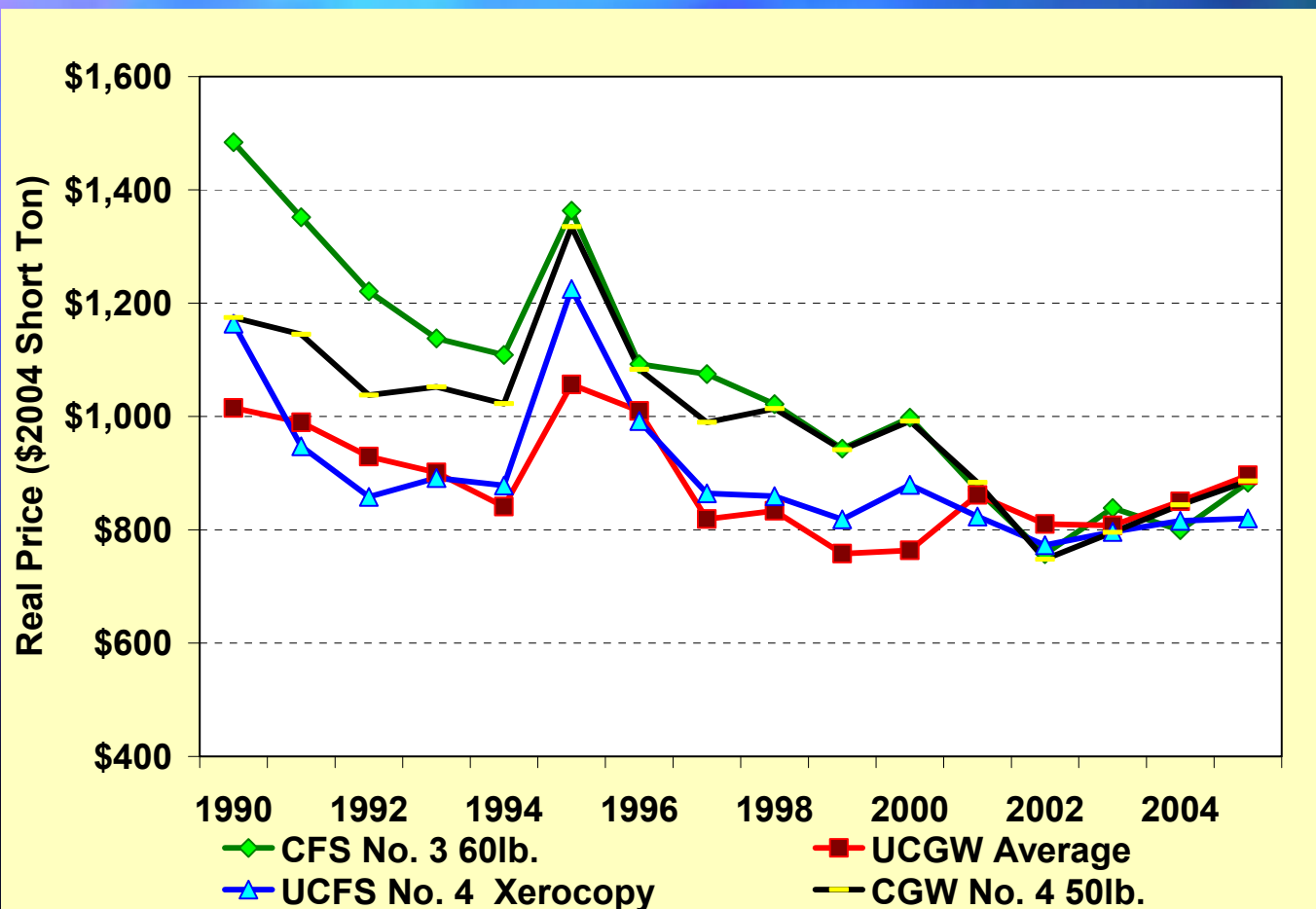
**Rising Imports
Have Slowed
Shipments
Relative To
Domestic
Demand And
Further
Capacity
Rationalization
Is Likely**

Outlook – NA P&W Papers



**Significant
NA P&W
Over-
Capacity
Persists –
Sustaining A
Difficult
Market
Condition**

Outlook – NA P&W Papers



**Collapsed
Real Price
Trends
*Continue
Downward*
And Recent
Pricing
Improvements
*Have Been
Disappointing***

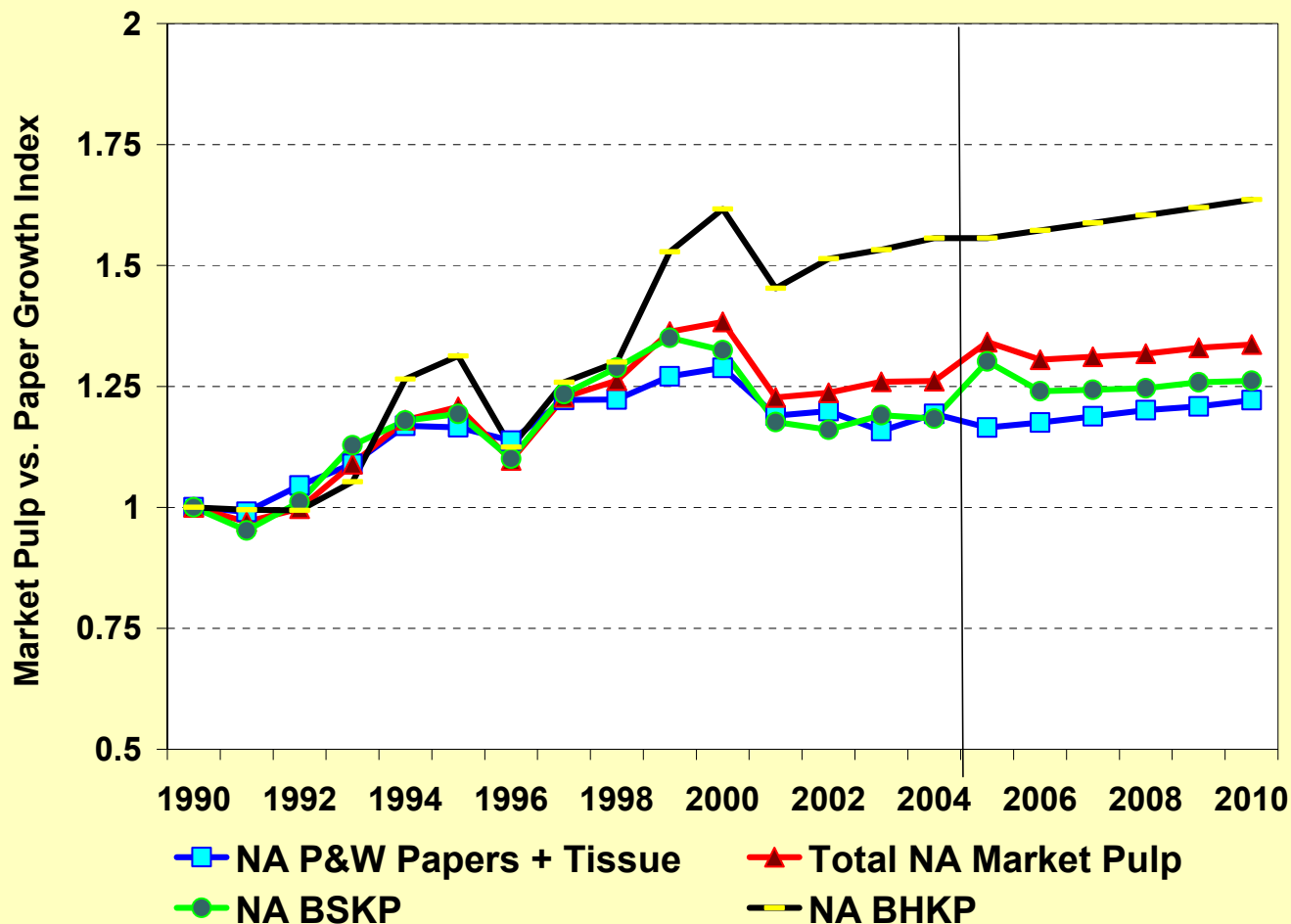
Outlook – NA Market Pulp

Market Pulp is an intermediate good in the production of the other paper and paperboard grades --

- Pulp Investment returns – *among the poorest in the industry – which in some circles is baffling . . .*
- Environmental restrictions – *new capacity additions difficult*
- International producers – *continue to import pulp competitively to US*
- DIP pulps presently *relatively more financially attractive* than virgin pulps

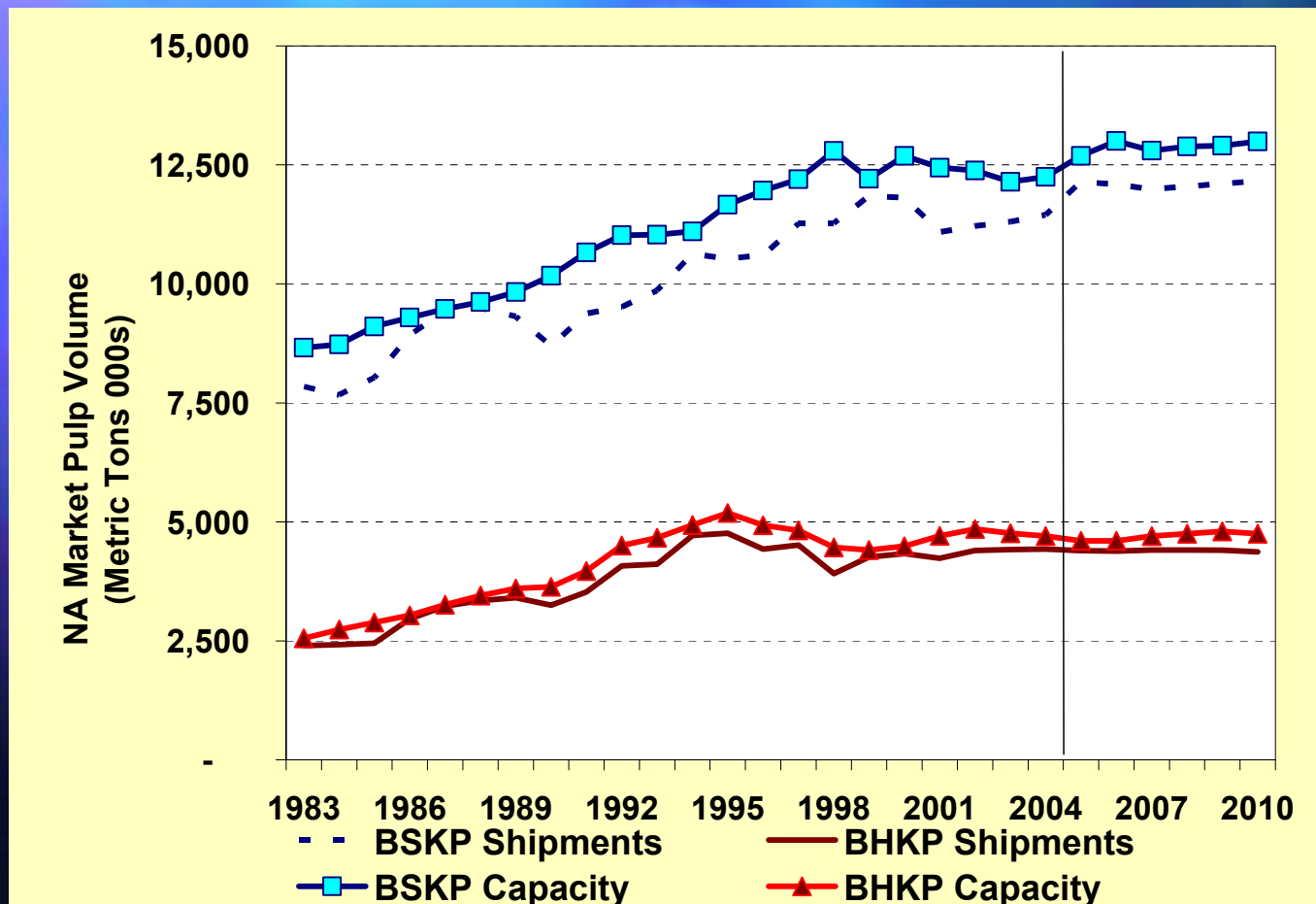
Implications: Some capital to be spent on integrated DIP facilities. Capacity will creep up with incremental improvement projects – *Wild card here is China's fiber demand . . .*

Outlook – NA Pulp



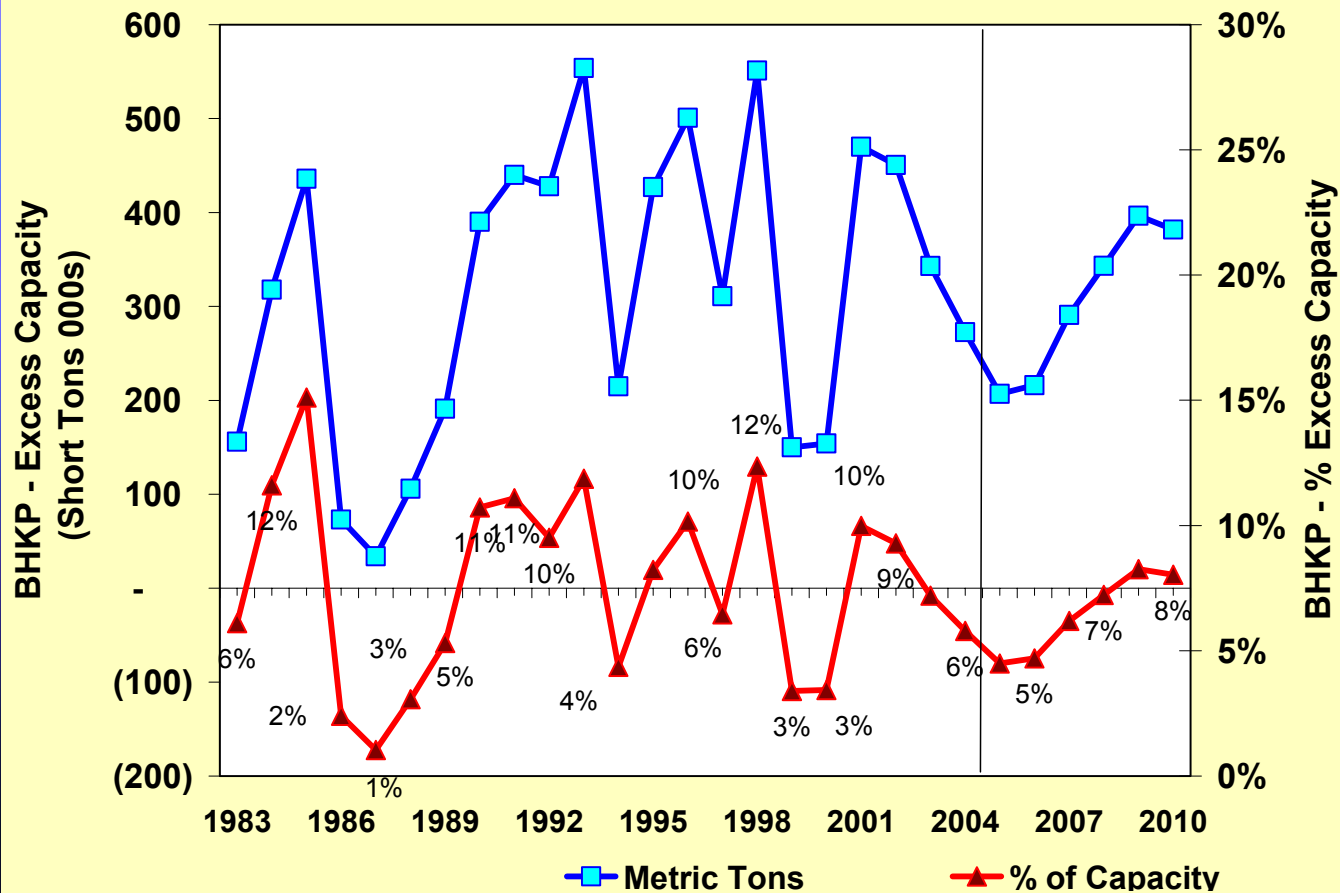
Demand For Market Pulp Follows Other Grades – But Watch China's Needs and Demands Looking Out

Outlook – NA Pulp



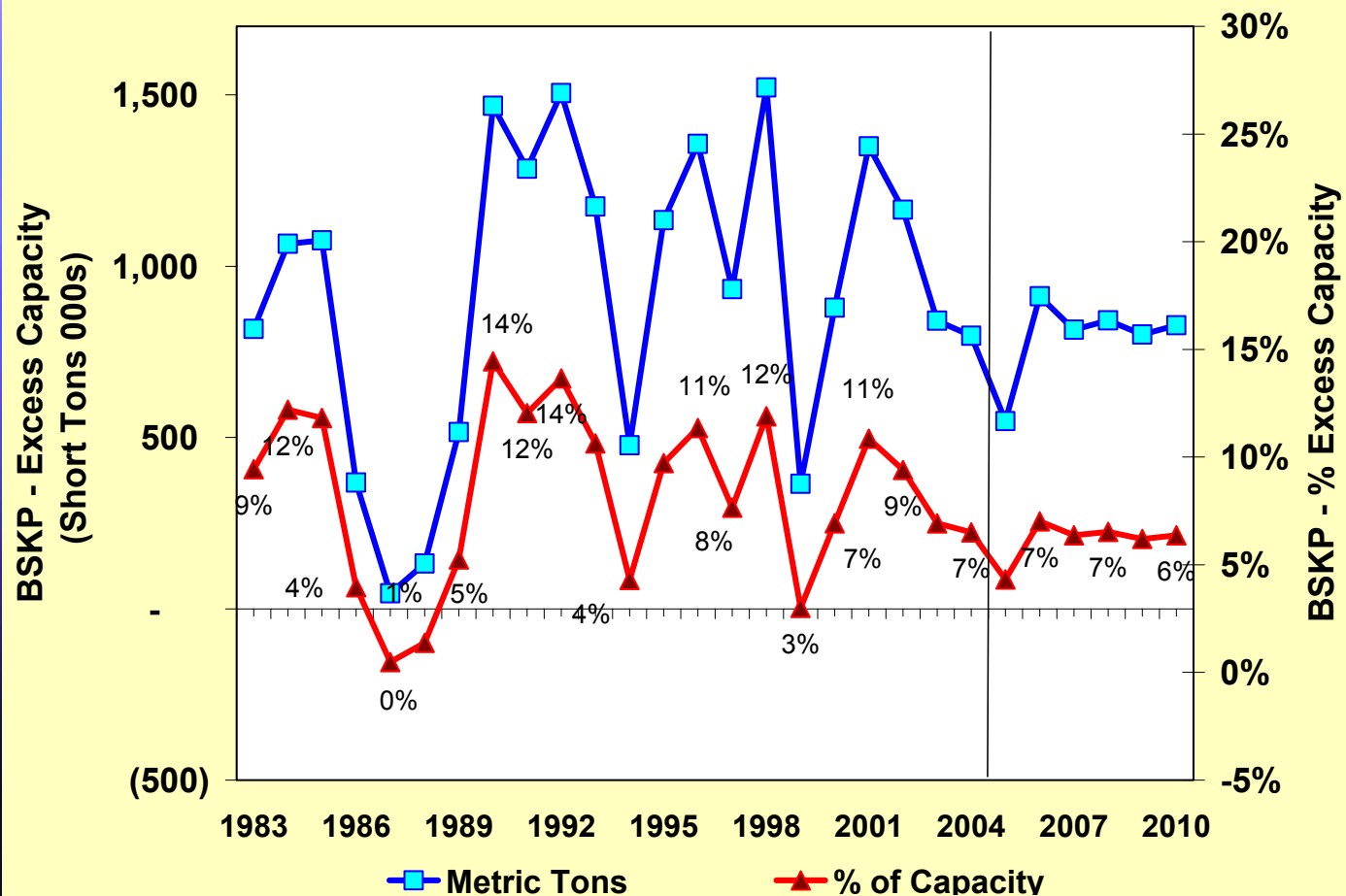
Supply And Demand For Chemical Market Pulp Is Expected To Be Relatively Flat – But Again – *Watch China's Needs Evolve . . .*

Outlook – NA BHKP



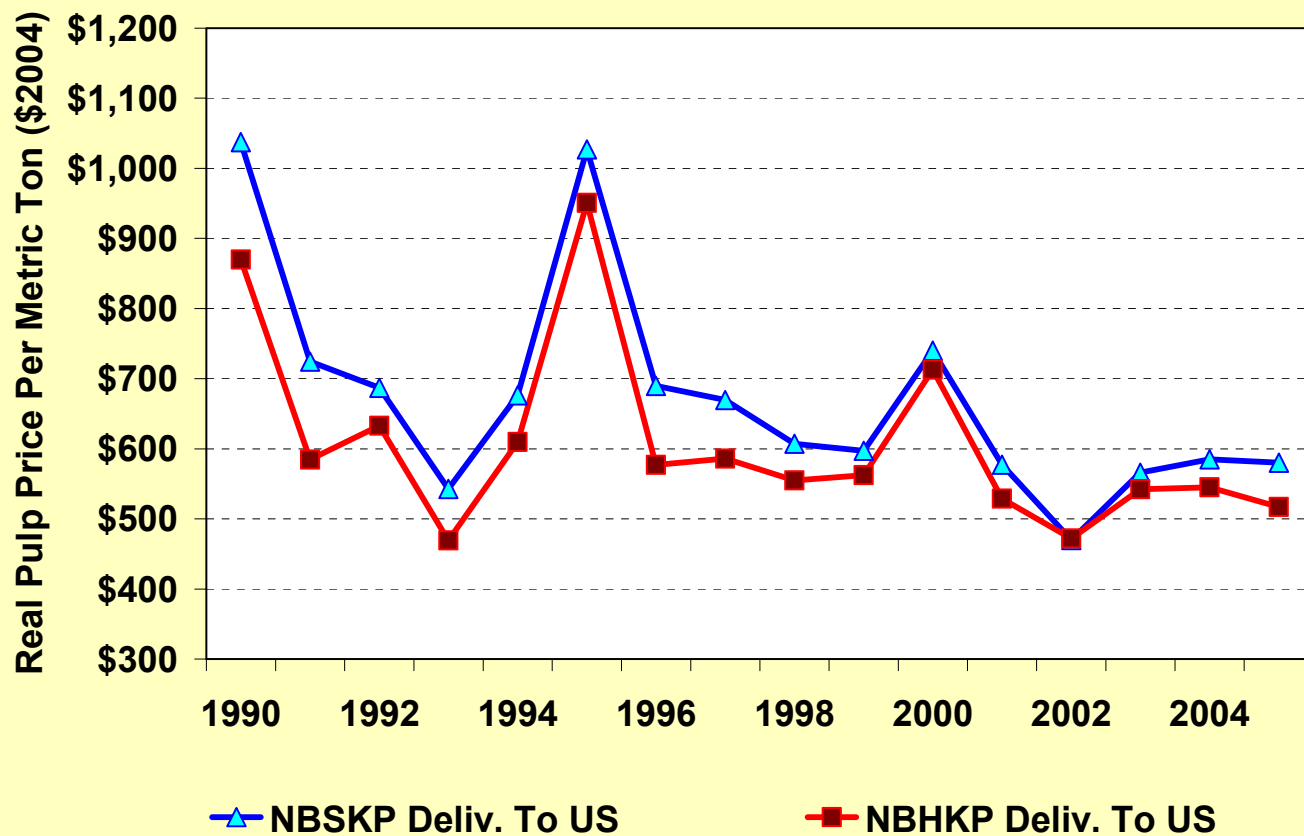
NA BHQP
Capacity Is In Check But Is Expected To Creep Up Over Time – Increasing The Risk Of Capacity Closures

Outlook – NA BSKP



NA BSKP Is Carrying Relatively More Capacity Than BHKP – Making It More Sensitive To Swings In Demand

Outlook – NA Market Pulp



**Market Pulp
Prices Have
*Once Again
Flattened &
Long-term
Fundamentals
Still Not
Strong Going
Forward***

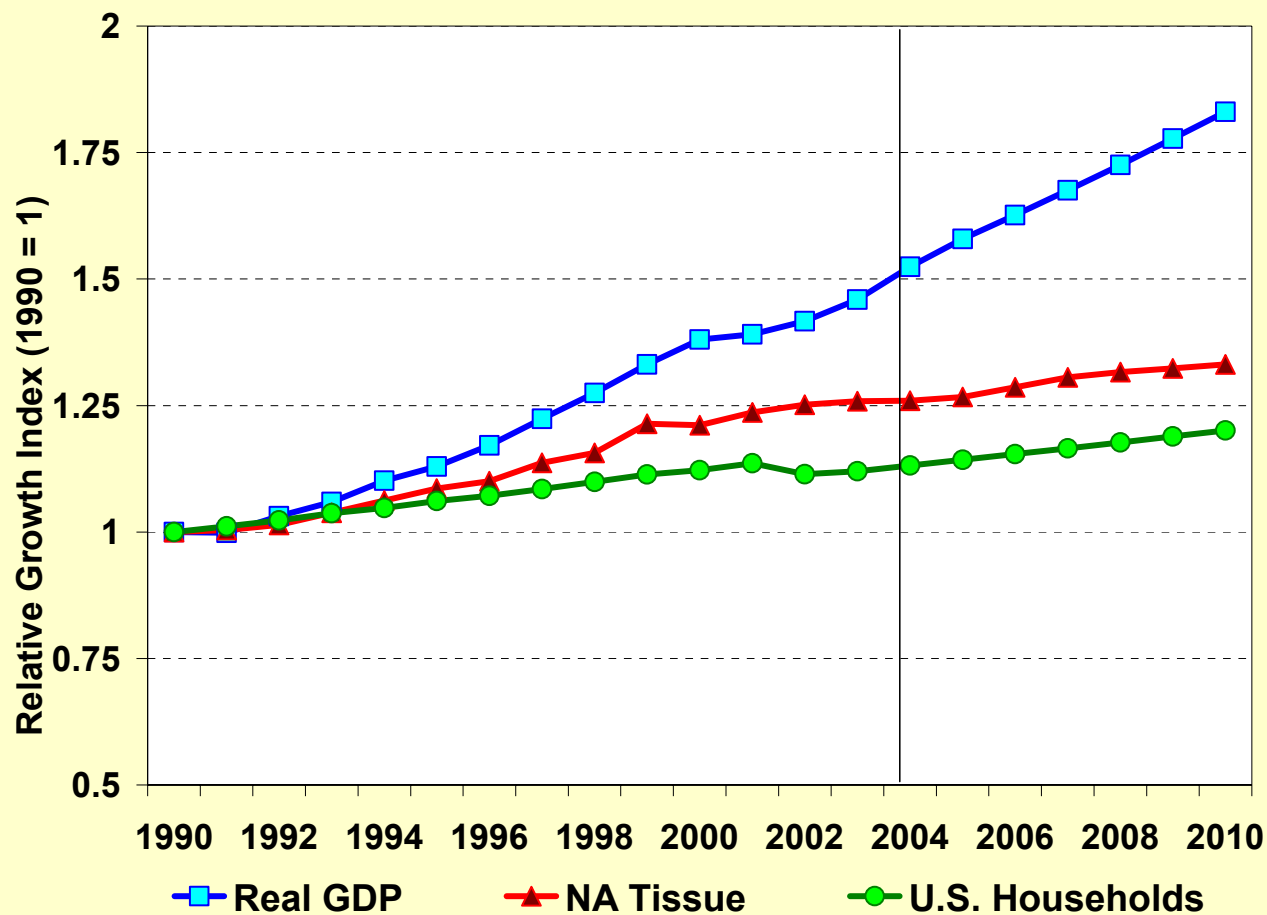
Outlook – NA Tissue

Tissue is ***strongest overall segment*** in North America --

- End-product demand is mature – Americans highest per-capita consumers in world & *incremental demand is slow*
- Demand growth is slowing – *but still expanding per capita*
- However – overall company financial returns *less sensitive to supply / demand dynamics* at mill level than other grades
- Regulatory considerations *will limit large M&A activity*
- Both technology changes and *new entrepreneurial entrants* will drive spending
- Excess capacity is building – *but likely to be absorbed*

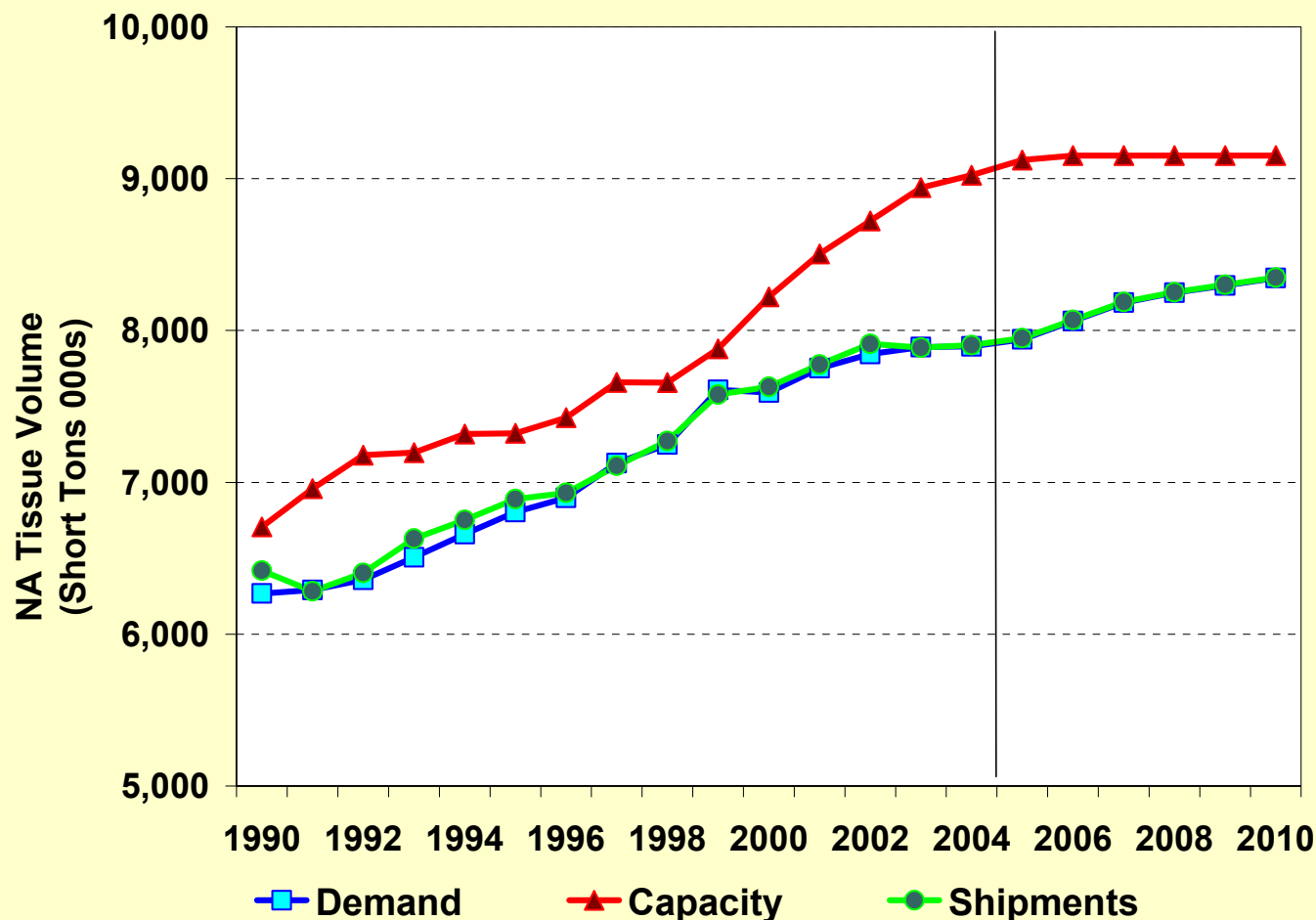
Implications: Segment may be losing some luster – is a day of reckoning coming or will historical market dynamics win out?

Outlook – NA Tissue



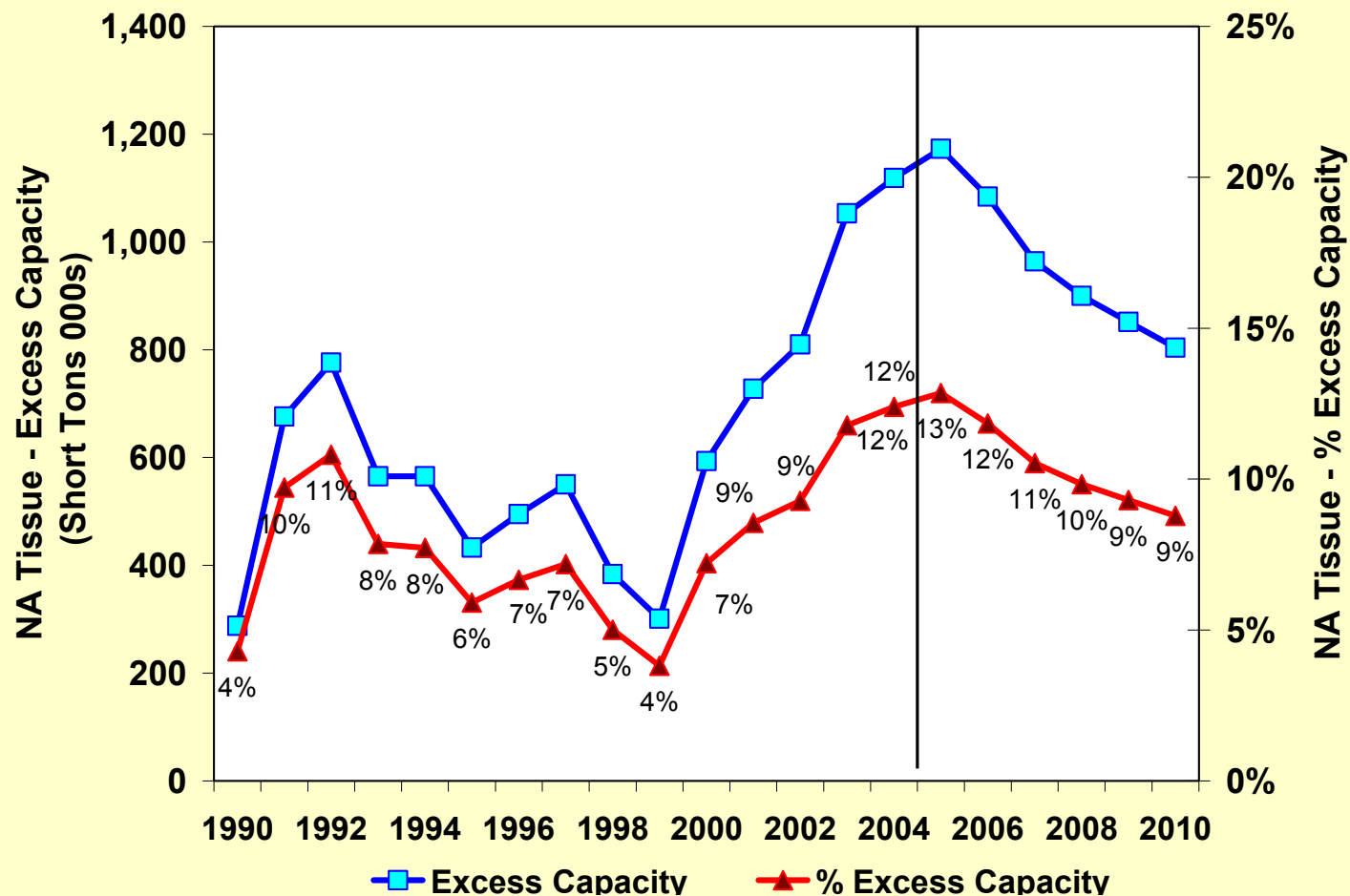
**NA Tissue
Has
Innovated
To Keep
*Demand
Ahead Of
Household
Formation***

Outlook – NA Tissue



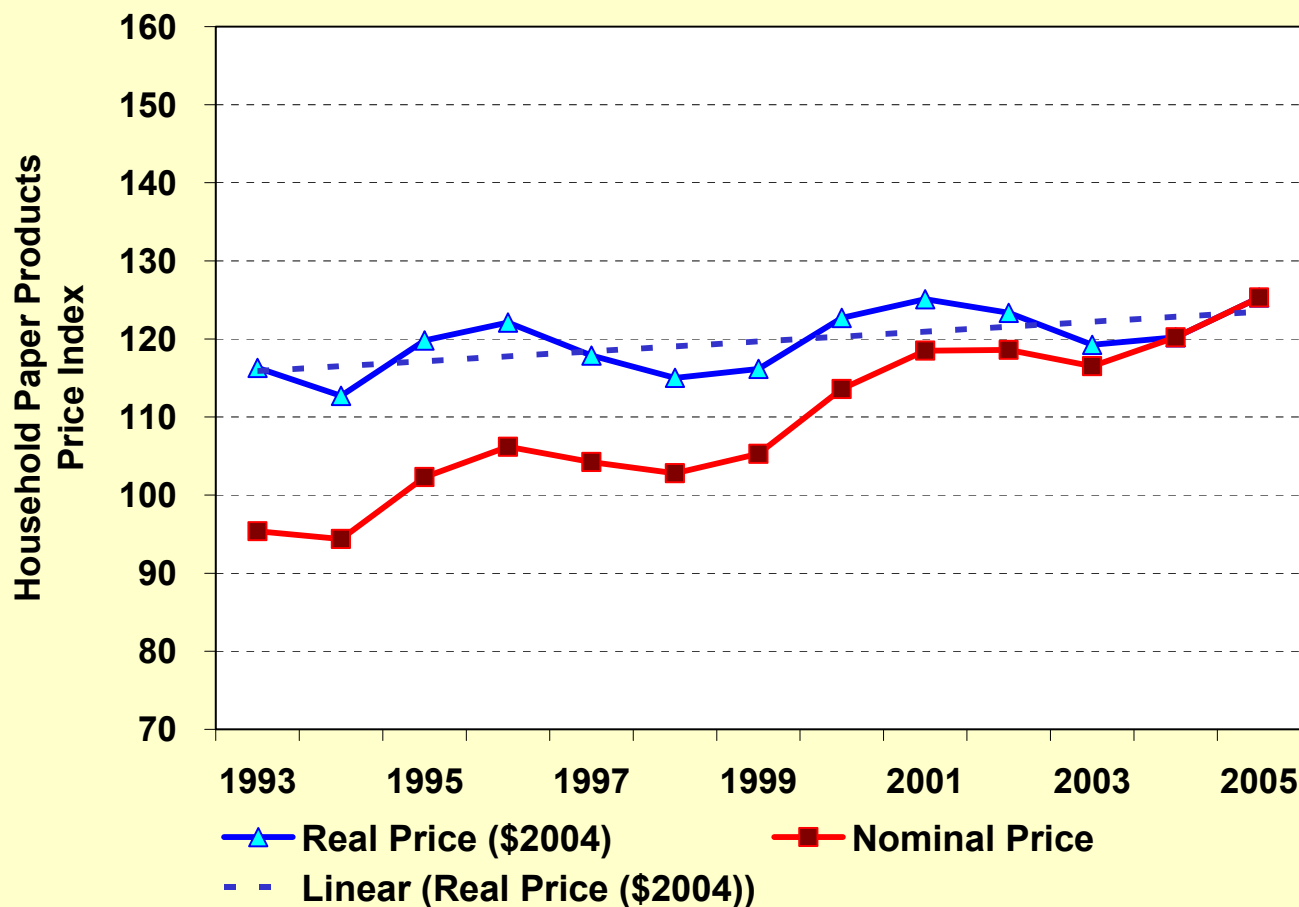
**Constraint
Is Needed
As
*Capacity
Growth Has
Recently
Outpaced
Demand –
But Some
Structural
Protections
Remain***

Outlook – NA Tissue



**Excess
Tissue
Capacity Is
Building
But Will
Moderate
As The
Rate Of
Capacity
Additions
Slow**

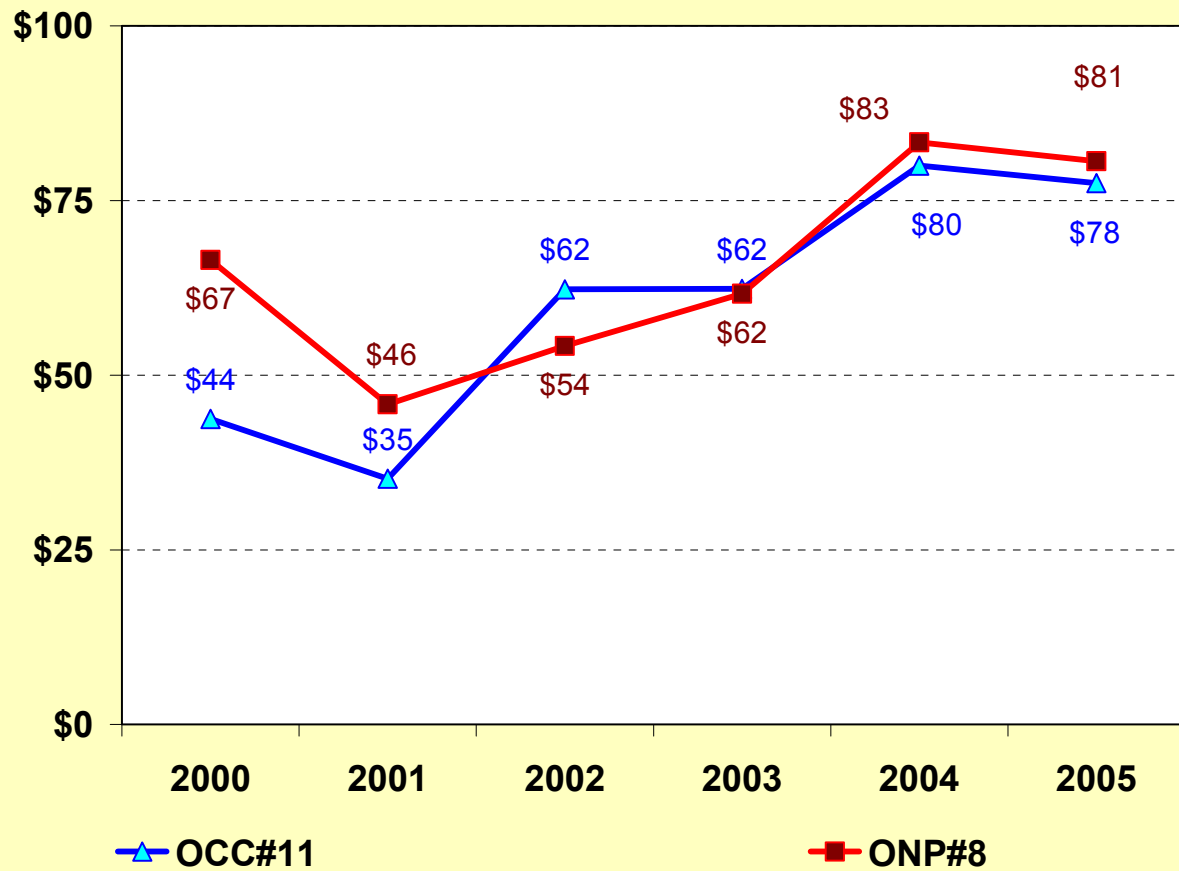
Outlook – NA Tissue



Consumer Products Pricing Is Trending Upward – The Away-from Home Market Trends Are Less Favorable

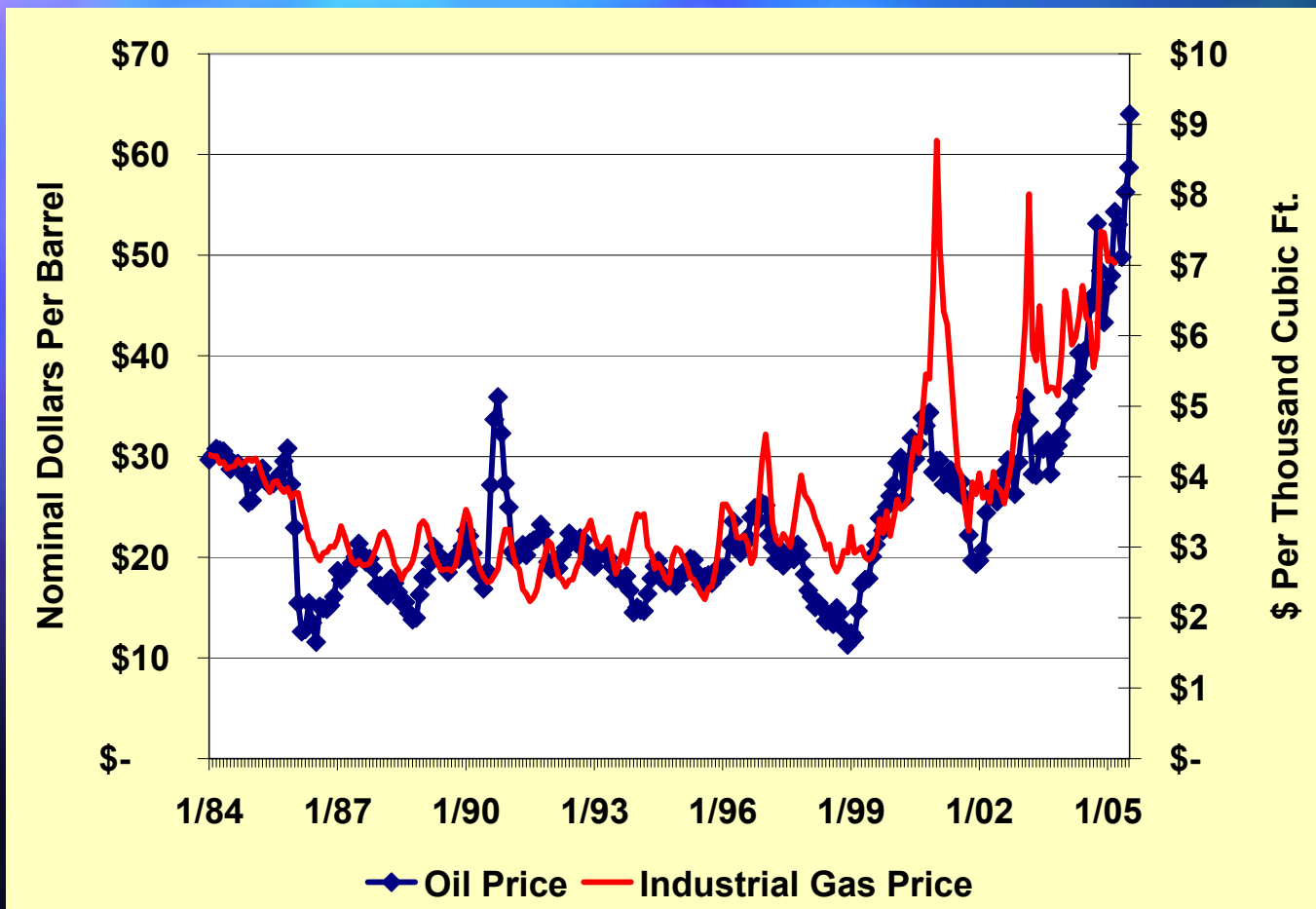
Outlook – Recovered Fiber

Real Recovered Fiber Price - U.S. Midwest
(\$2004 Per Short Ton)



Recovered Fiber Is Creating Upward Cost Pressures Across Grades – & With China's Needs – Pressure Expected to Sustain

Outlook – Energy – Oil and Natural Gas



**\$60+ Bbl Oil
& \$7/Mcf
Natural Gas
*Will Create
GDP &
Industry
Instability –
But Also
Raise Value
Opportunity
For Wood To
Fuel . . .***

US Industry Spending

History – Issues – Directions

- Capital Spending – Overview & Outlook
- Profitability & Capital Turnover
- ROTC Versus Cost of Capital
- Debt Levels
- Production Capacity Expectations
- Capital Spending/Depreciation
- Capital Spending Level

US Industry – Capital Spending

US capital expenditures will continue to be depressed by poor financial performance & slowing of capacity growth --

- ***M&A crowded out CAPEX on PPE last 5 years – Should ease within largest firms – antitrust constraints***
- ***However, asset swaps & business-line spin-offs likely to accelerate + second-tier players consolidation***
- ***There is risk that unexpected international acquisitions activity will interrupt capital spending patterns***

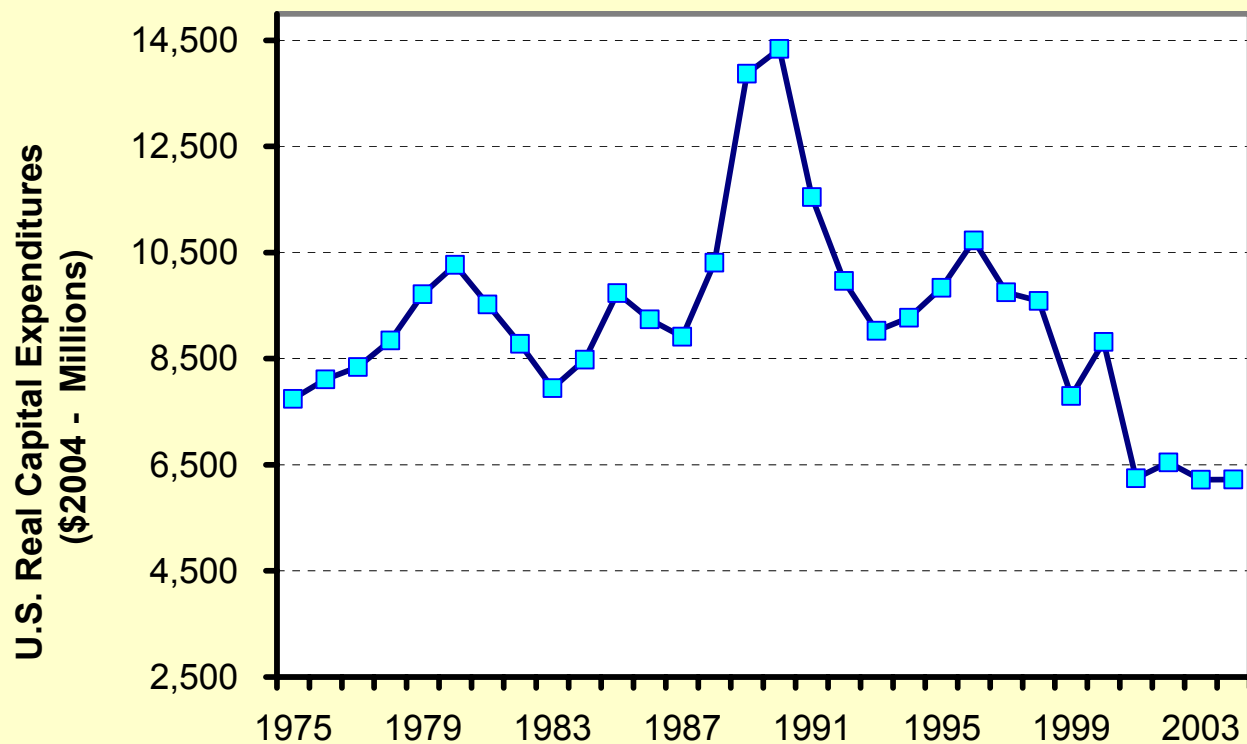
Overall, net M&A impact should be better (less impacting) for CAPEX than the last 5 years – *but not enough to offset weak investment fundamentals yet.*

US Industry – *Capital Spending*

Combination of economic, pulp and paper market, and financial / investment realities drove US capital expenditures down *from \$8+ billion in 2000 to \$6+ billion by 2001 --*

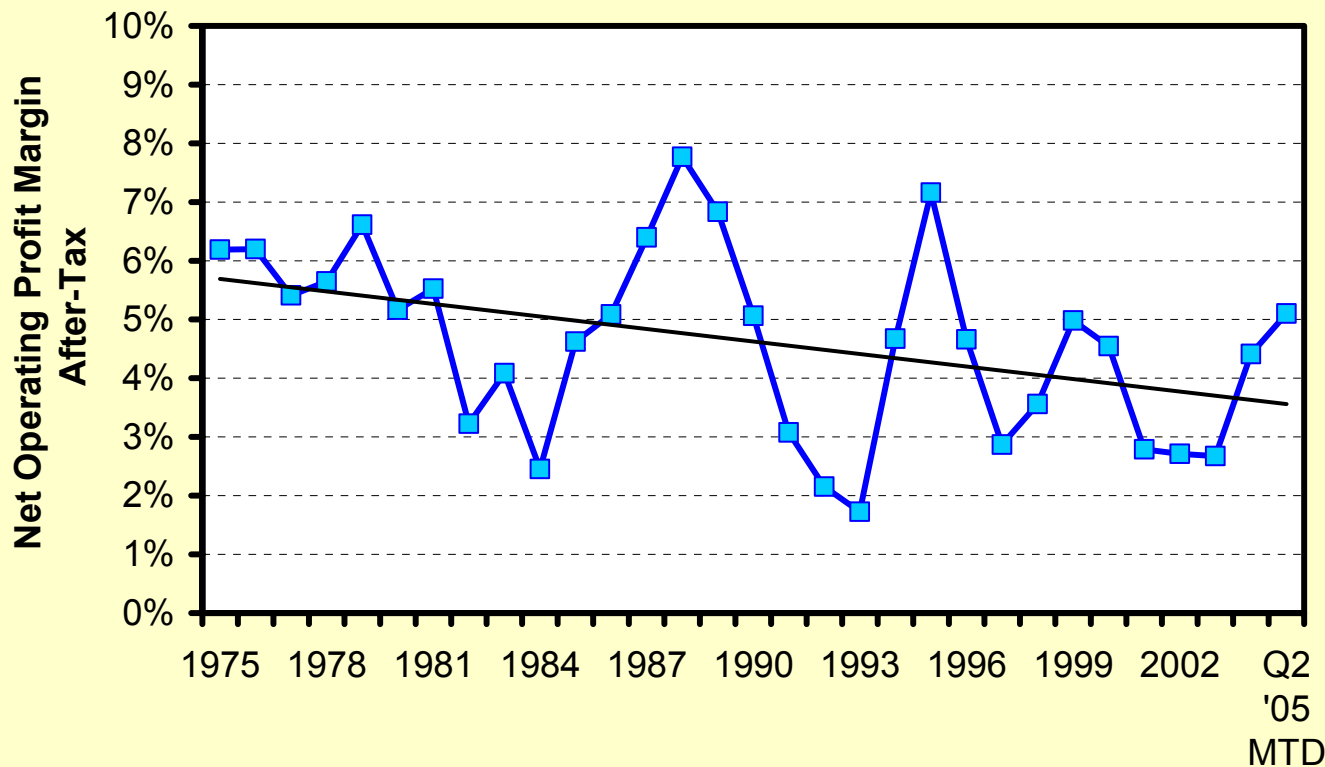
- 2005 capital expenditures *will fall again* to \$6 billion and then likely cycle between \$6.0 billion and \$8.5 billion through 2006
- The following table and graphs summarize these historical trends and projections

US Industry – Capital Spending



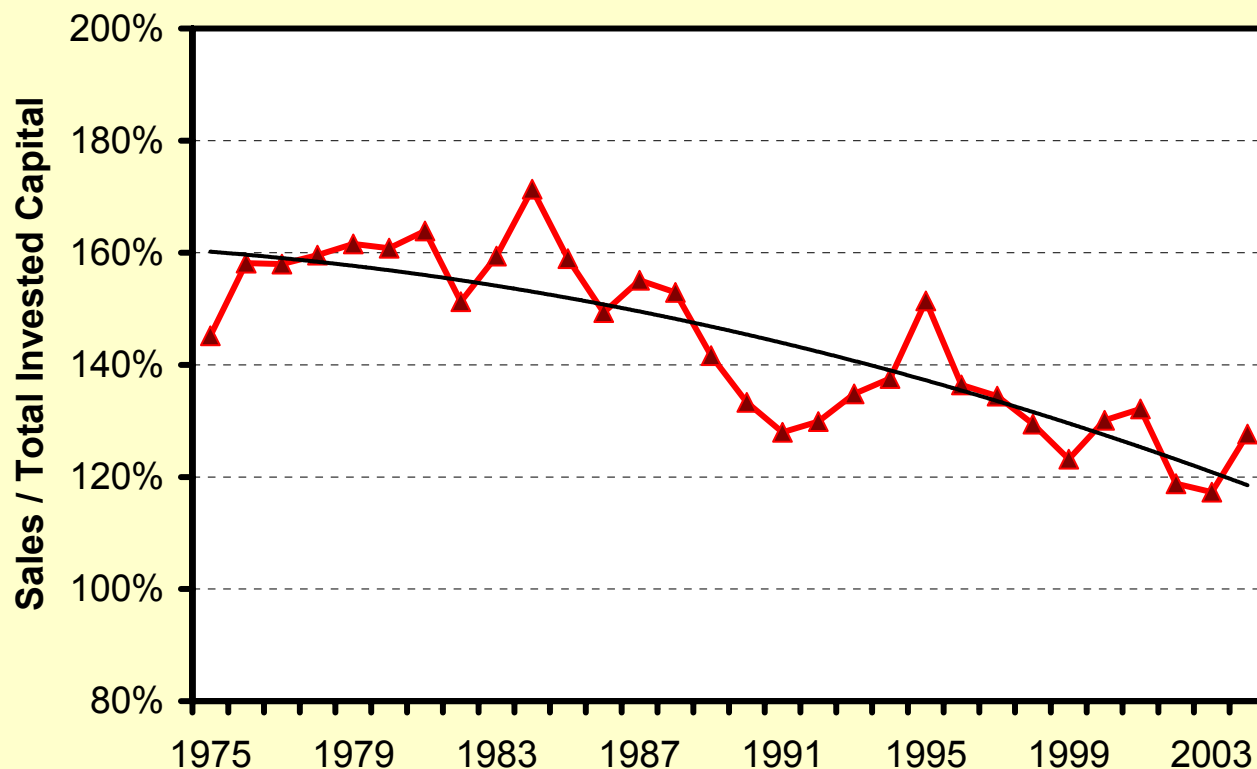
Capital Expenditures (CAPEX) On Pulp & Paper Property, Plant & Equipment (Nominal \$ Millions)

US Industry – Profitability



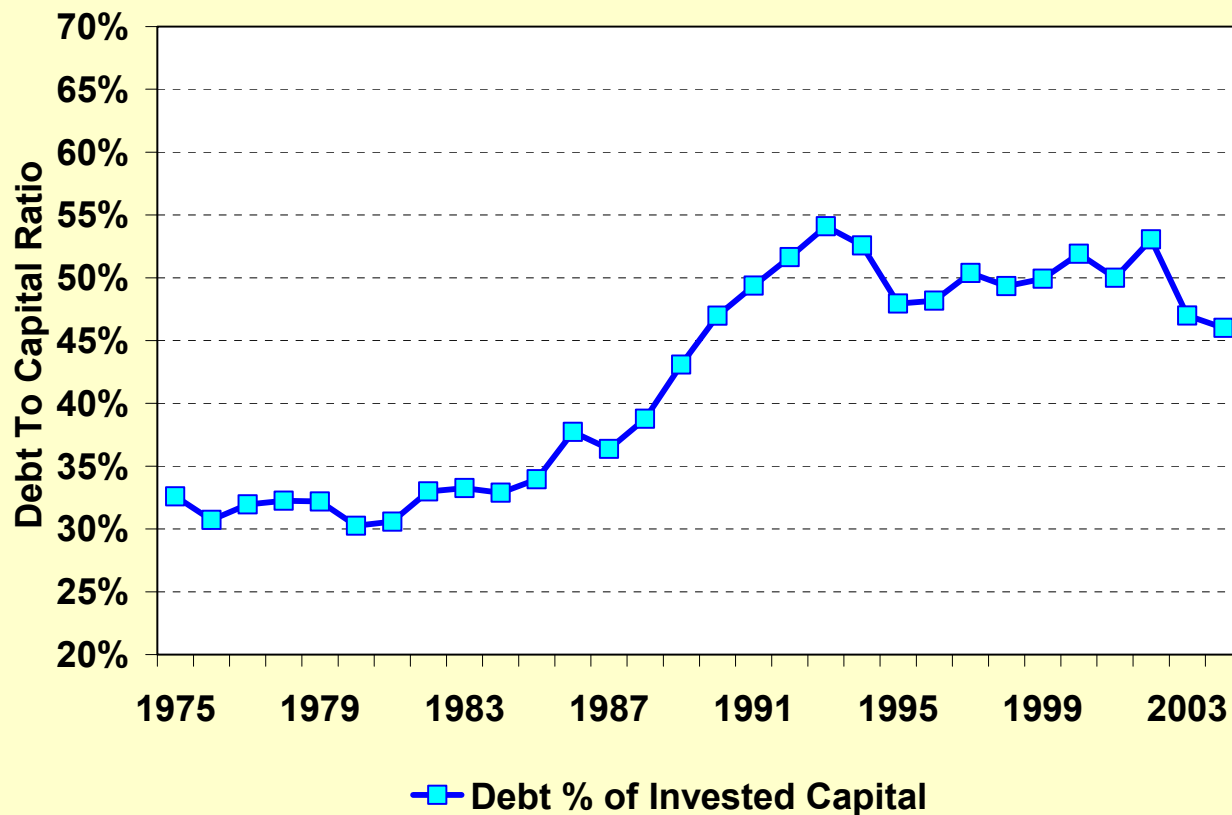
**Profitability
Has Improved,
But *Continues
To Trend
Downward –
And Is
Expected To
Weaken For
the Remainder
of 2005***

US Industry – Capital Turnover



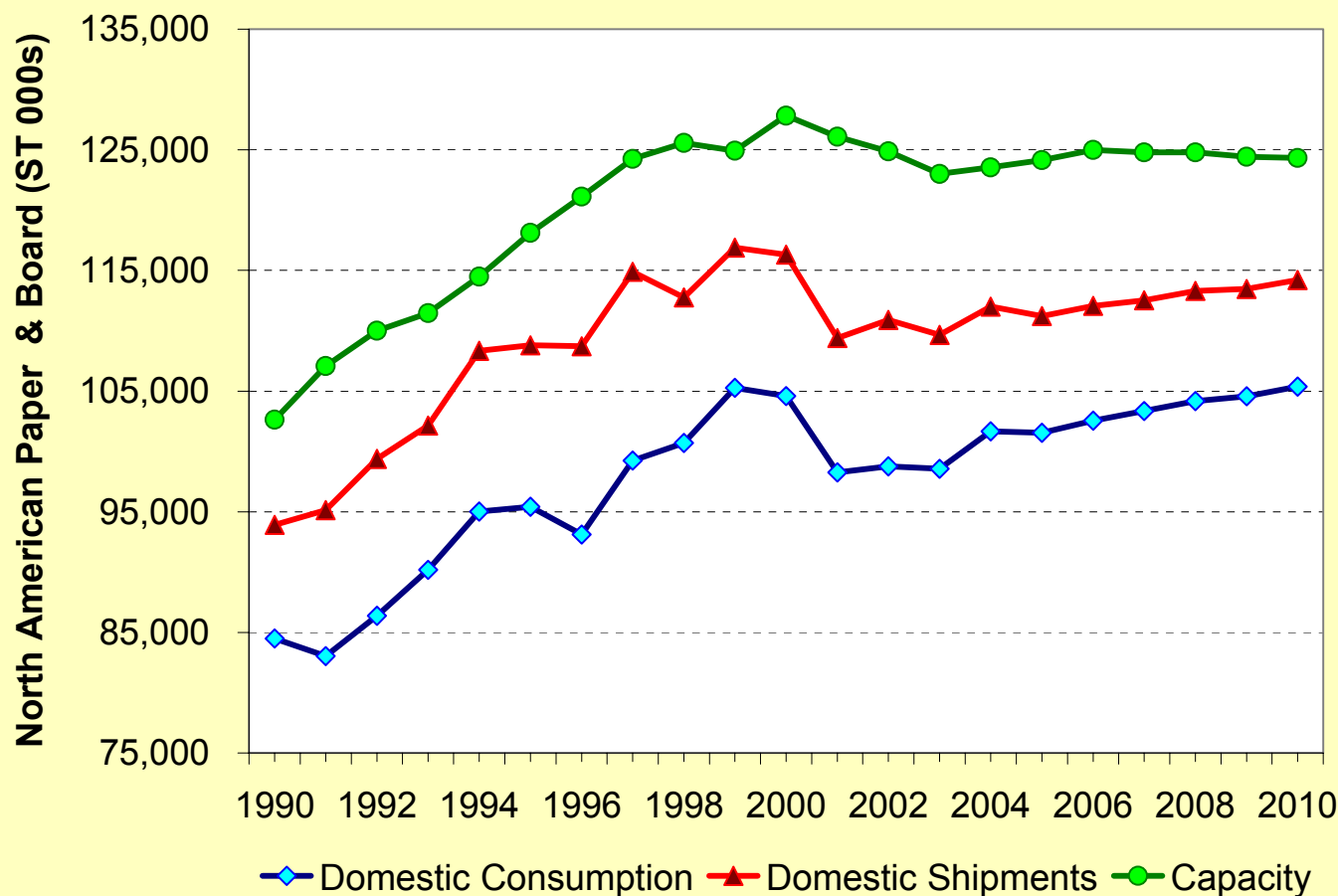
**Capital
Turnover Is
*Trending
Downward
Yet Also
Has
Rebounded
& Trend
*May Be
Flattening****

US Industry – Debt Levels



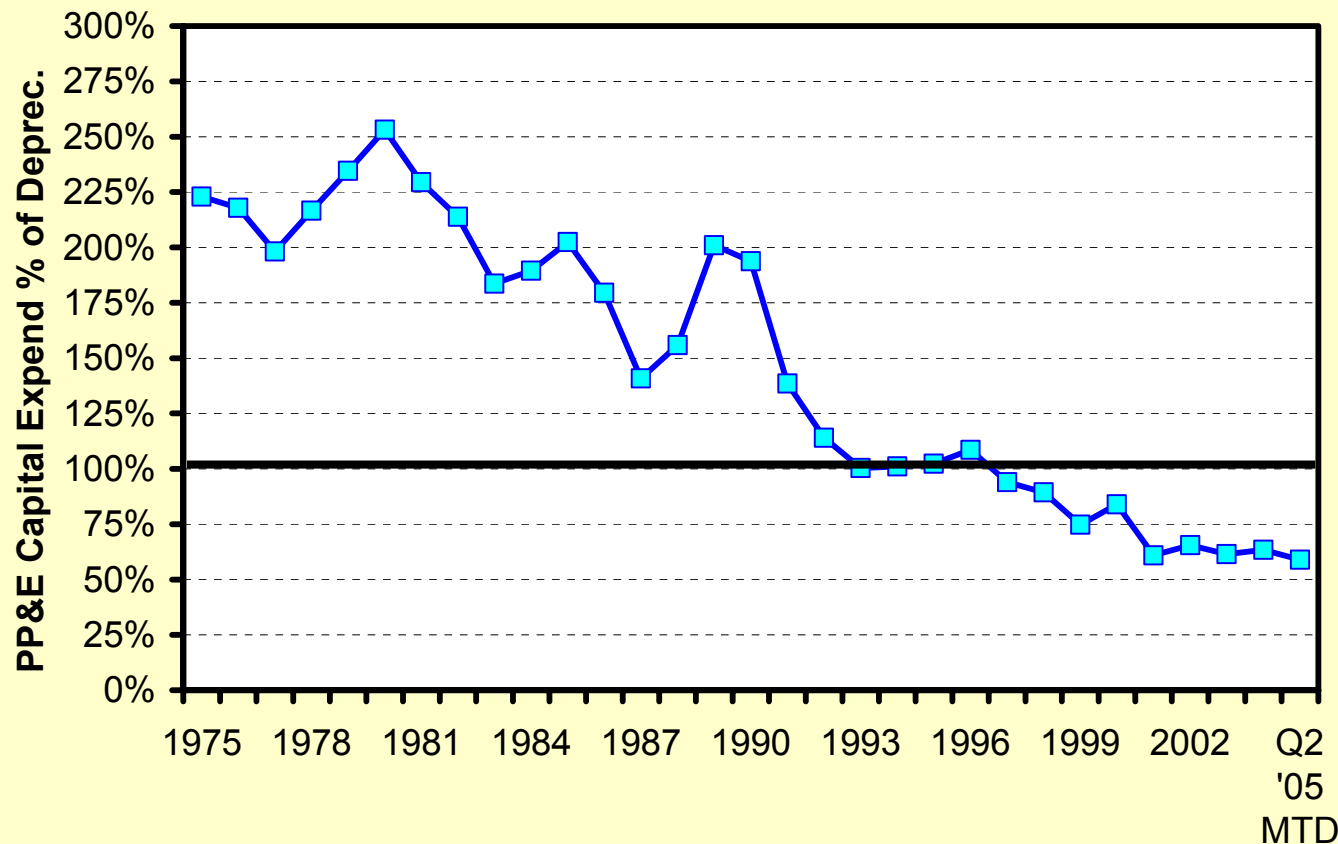
Improved
Debt Levels
Are Still
Constraining
Needed
Business
Investments
– Yet Debt is
Now *Much*
Lower Cost
Than Equity

US Industry – Production Capacity Expectations



Total US Paper & Board Consumption Is Resuming Growth – While Overall Capacity Is Relatively Flat

US Industry – Capital Spending/Depreciation



US Capital Expenditures Remain Significantly Below Depreciation Levels – But Seem To Have Stabilized

US Industry – *Investment Decisions' Drivers*

Attractive Opportunities = More Likely To Invest

- **Strong ROTC** = Proven capability to identify/execute value creating projects – more likely to attract & invest capital *than poor performers*
- **Good Outlook Product Mix** = More likely to invest (i.e. tissue, selected P&W) *than poorly performing segments* (i.e. boxboard, newsprint, UCF, market pulp)
- **Geographic Mix** = Firms in Higher growth geographic markets (i.e. Asia & Latin America) more likely to invest than US and Canadian (*and now some European*) focused players

US Industry – *Investment Decisions' Drivers*

Greater Capital Availability = More Likely To Invest

- **Debt-To-Capital Ratio** = High debt % – the more likely to divert cash to lower debt instead for capital expenditures
- **Debt Capacity** = Low debt % – creates real opportunities to use *new low cost debt* for innovative investment moves
- **Cash Flow Available For Reinvestment** = More cash generated by operations, the more funds *typically invested in the business* & to stimulate investors

Recap & Final Thoughts

- U.S. Pulp and paper industry *demand peaked circa 2000* – closures will continue at a slower rate *but best facilities will remain strong*
- Will *take years to reach 2000 levels again* – if ever
- Pulp and paper *NOT likely to be a source of growth for wood demand* with current products
- However, *complete replacement by offshore producers unlikely* due to U.S. wood resources and large absolute market
- Construction *boom won't last forever...*

Forestry industry needs to innovate alone or in conjunction with pulp and paper to develop new products and markets (i.e. bio-refining).

Recap & 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 innovate 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”***

Recap & Final Thoughts

Thank You! -- Copies Available At

www.valueresolution.com -- And -- www.cpbis@gatech.edu

Contact Information

Dan Cenatempo

President -- Value Resolution Group, Inc.

770-522-8972 -- dan@valueresolution.com

Jim McNutt

Executive Director – Center for Paper Business & Industry Studies

404-894-5733 – jim.mcnutt@cpbis.gatech.edu