

Global Printing & Writing Paper Outlook

John Maine, VP, World Graphic Paper
November 2012

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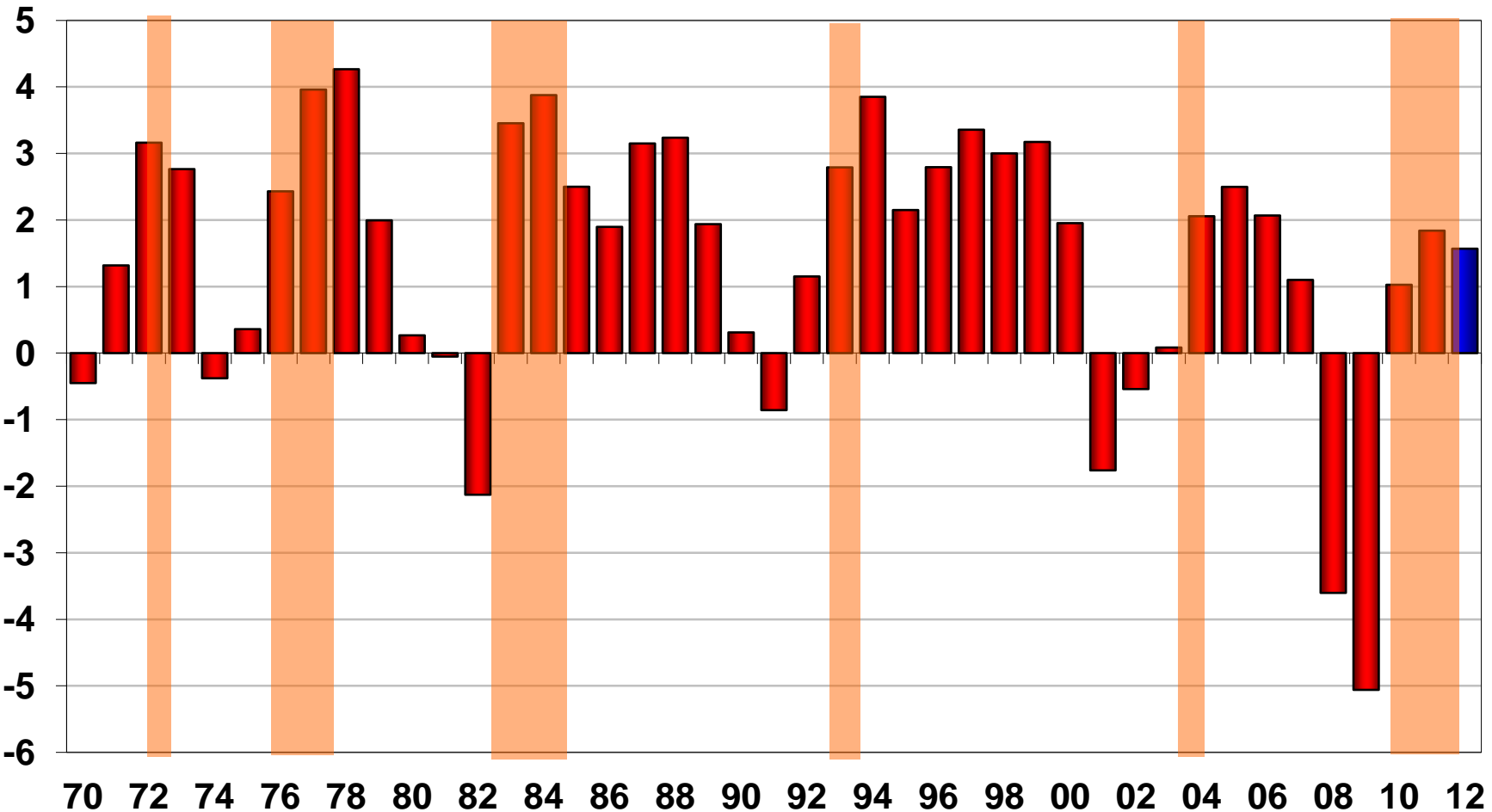
RISI Growth Projections for 2012

Presented to GPC Last Year (11/2011)

	Last Yr's Fcst. For 2012	Current Est. For 2012	Current Fcst For 2013
GDP (U.S.)	1.9%	2.2%	2.0%
Paper Demand (N. America)	-2%	-6%	-2%
CFS	-2%	-6%	-2%
CGW	-3%	-2%	-8%
UFS	-2%	-4%	-3%
UGW	-3%	-16%	+4%
U.S. Catalog Circulation	-1%	-0.4%	-3%
Magazine Ad Pages	-3%	-8%	-7%

Jobs Returning, But Still a Long Way to Go

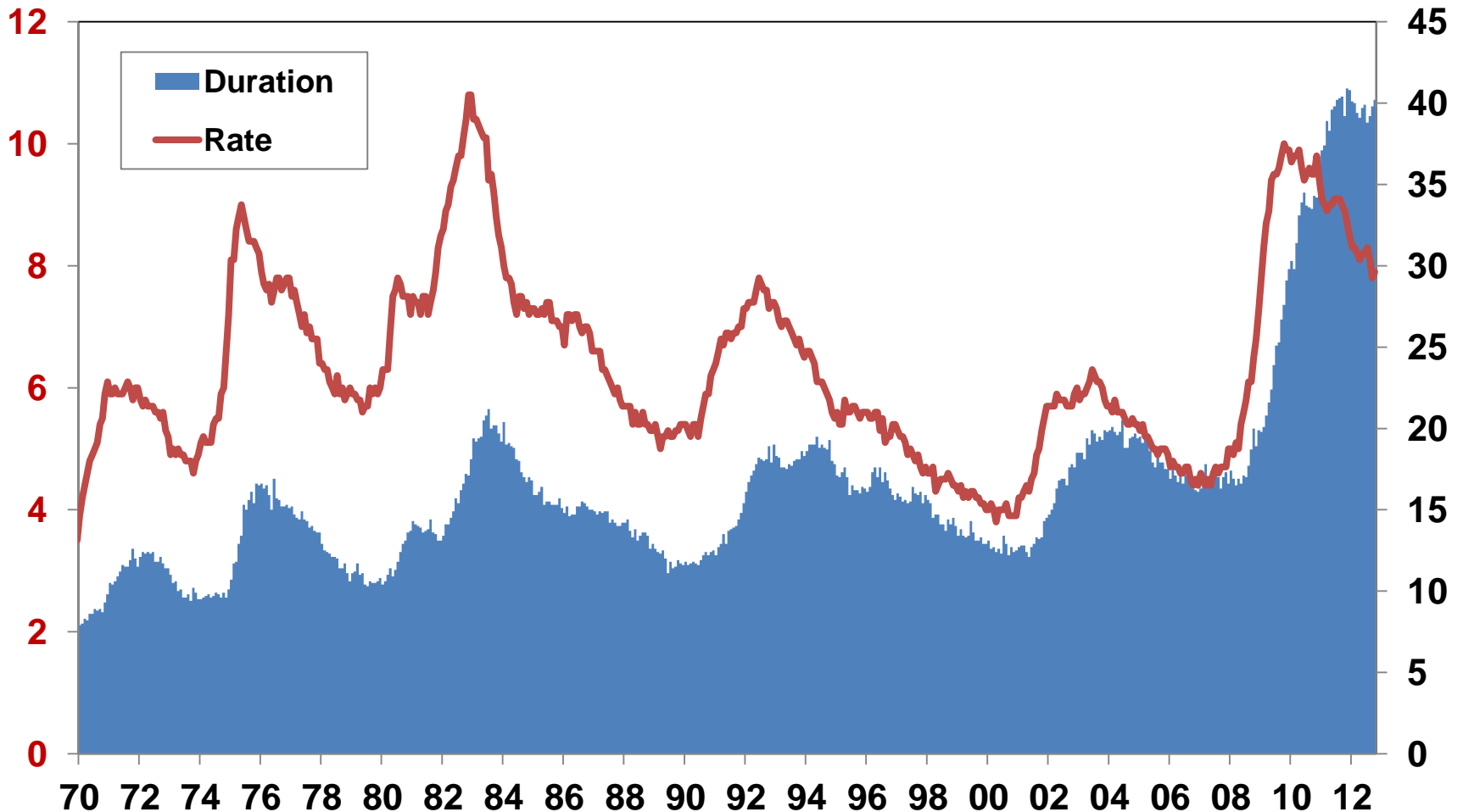
Change in US Total Payroll Employment, Millions



Source: BLS

Long-Term Unemployment Presents Serious Problem

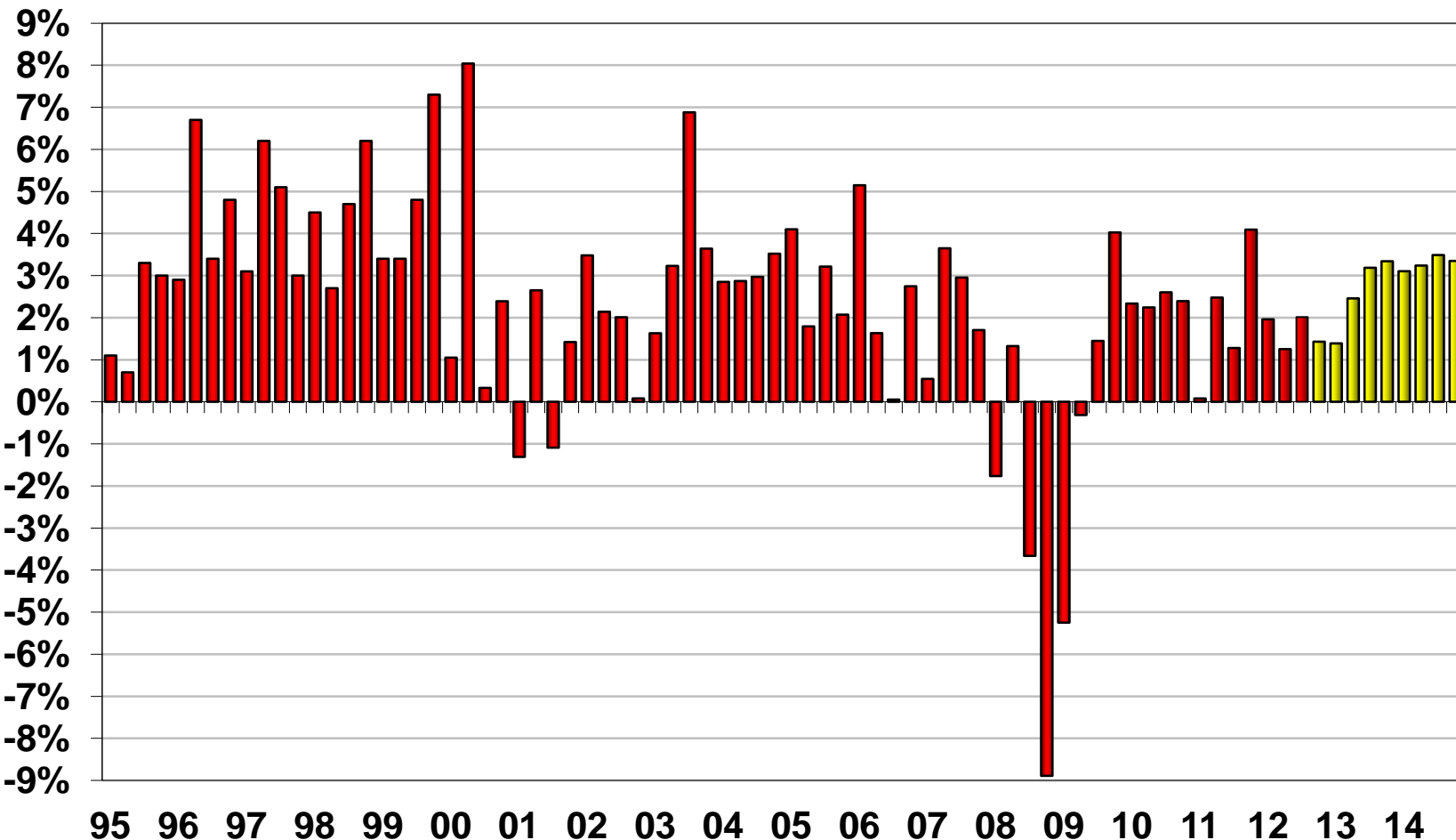
Unemployment rate; Mean Duration of Unemployment in weeks



Source: BLS

US Economy Growing, But Slower Than Normal

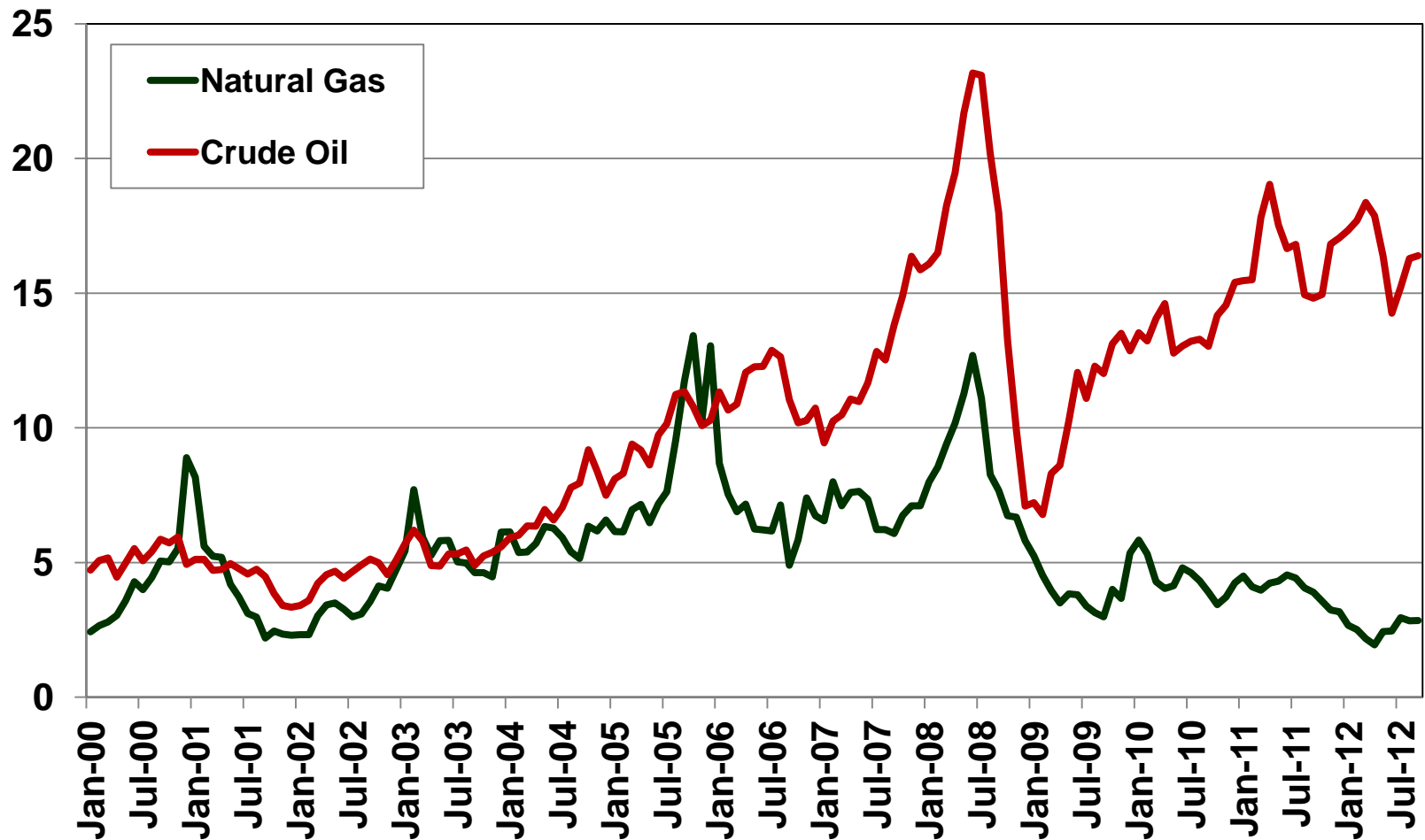
Real GDP Growth, Annualized Percent Change



Source: BEA, RISI

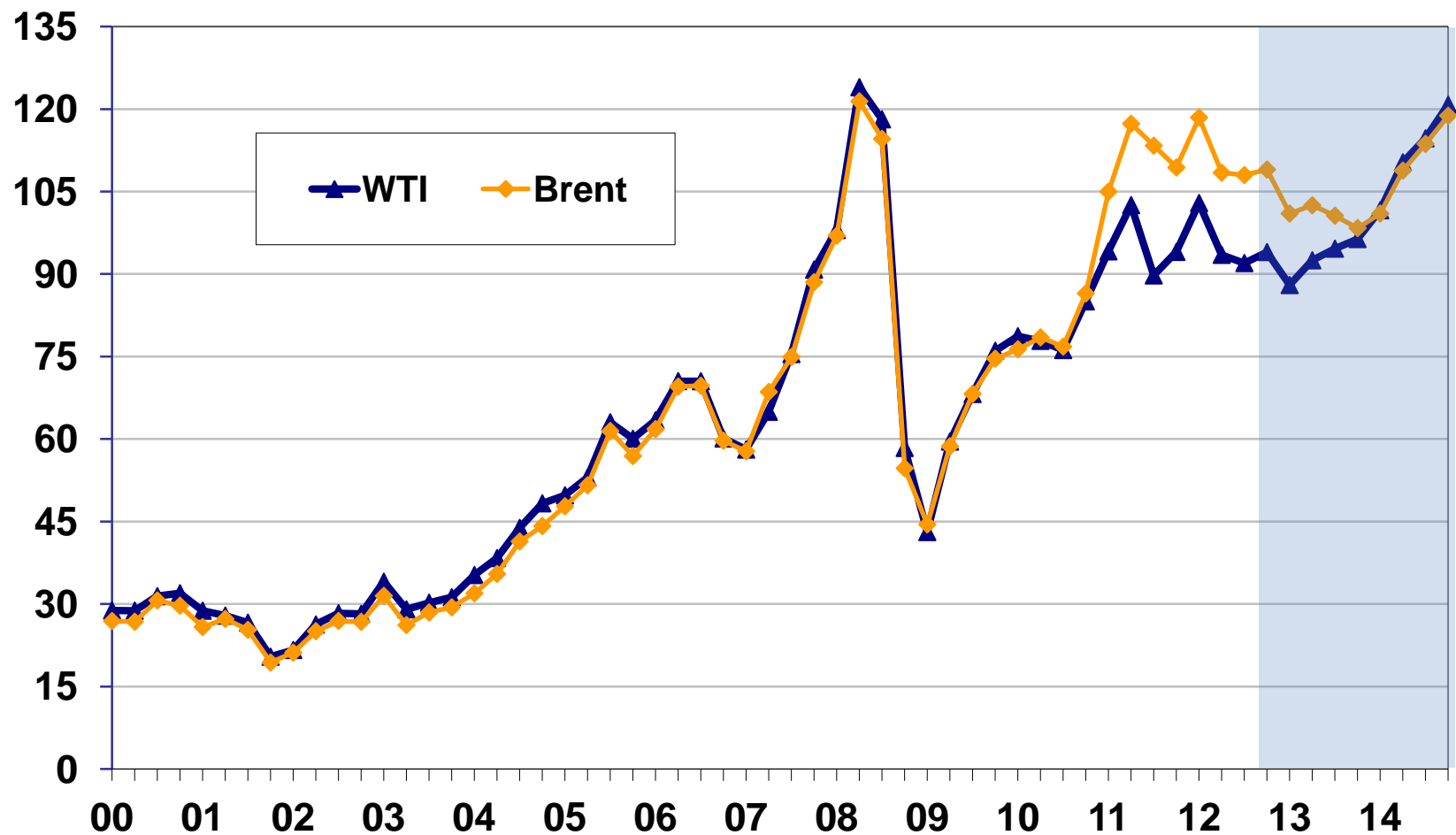
Low Natural Gas Prices Helping US Manufacturers

Henry Hub Natural Gas, West Texas Intermediate Crude Oil, \$/MBtu



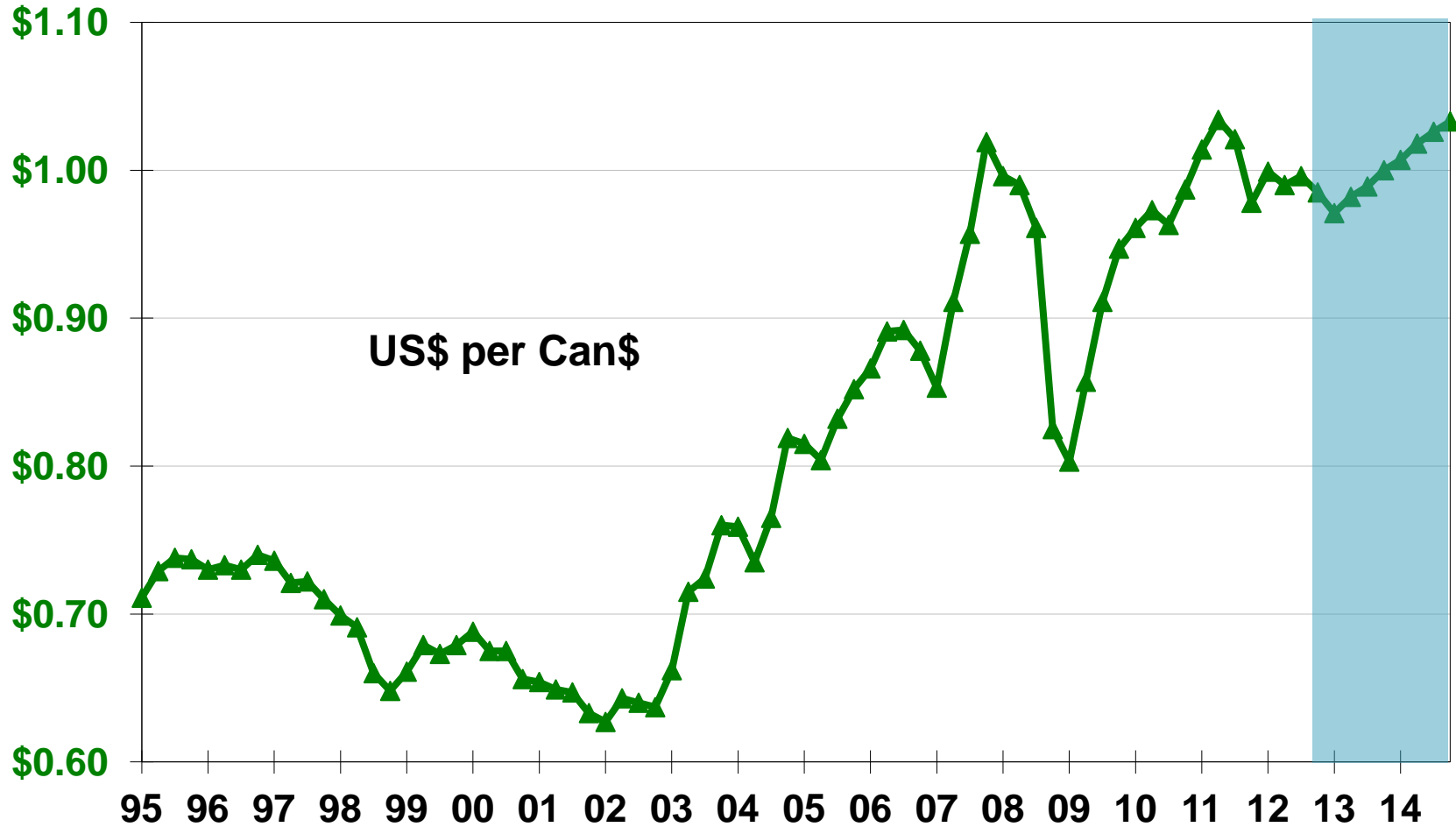
Oil Prices Weaken Near Term as Demand Slows

West Texas Intermediate, Brent North Sea Crude Oil Price per Barrel



Source: Fed, RISI

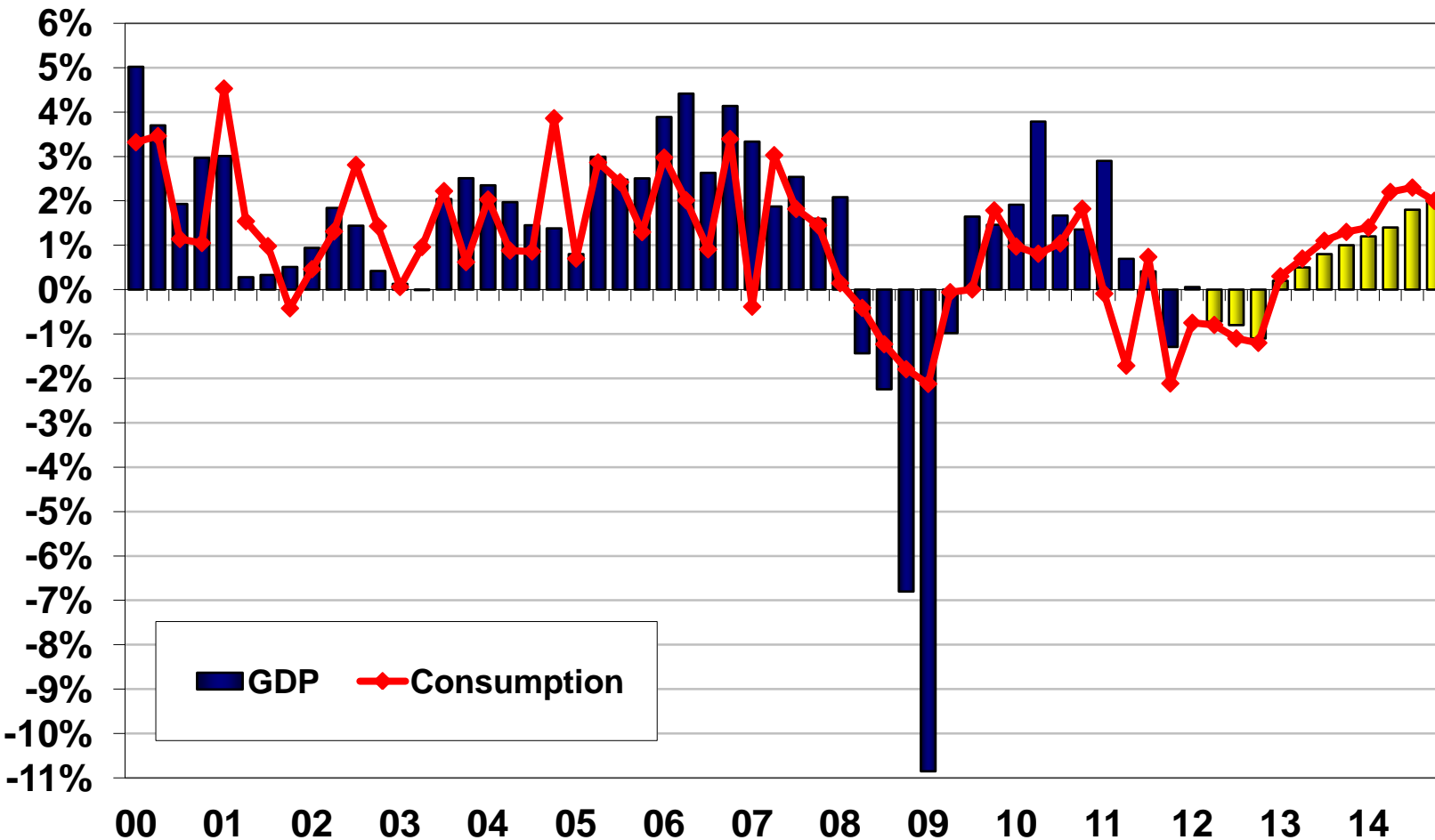
Canadian Dollar Follows Oil Back Up in 2014



Source: Fed, RISI

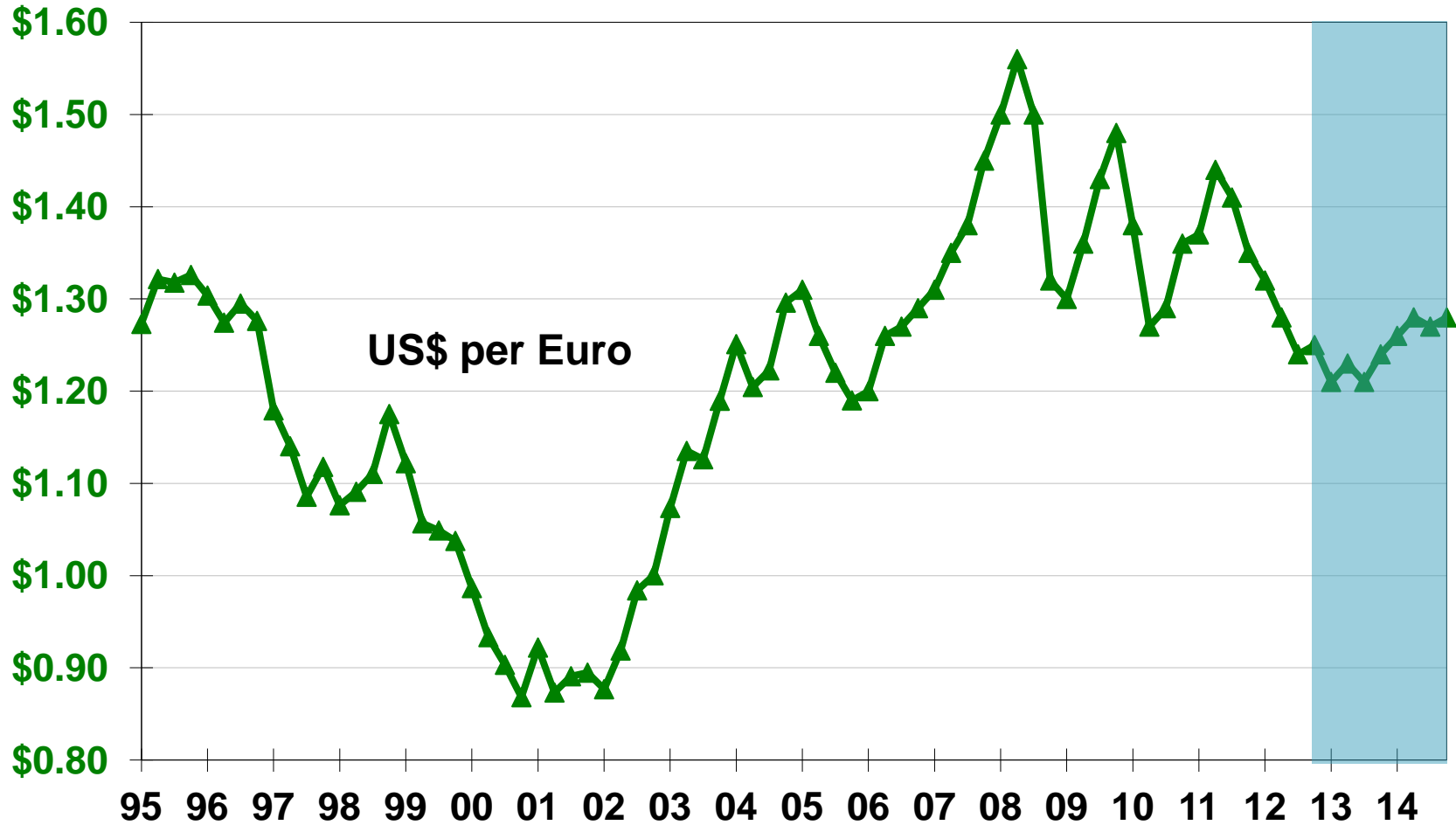
Euro Area in Recession

Real Growth, Annualized Percent Change



Source: Eurostat, RISI

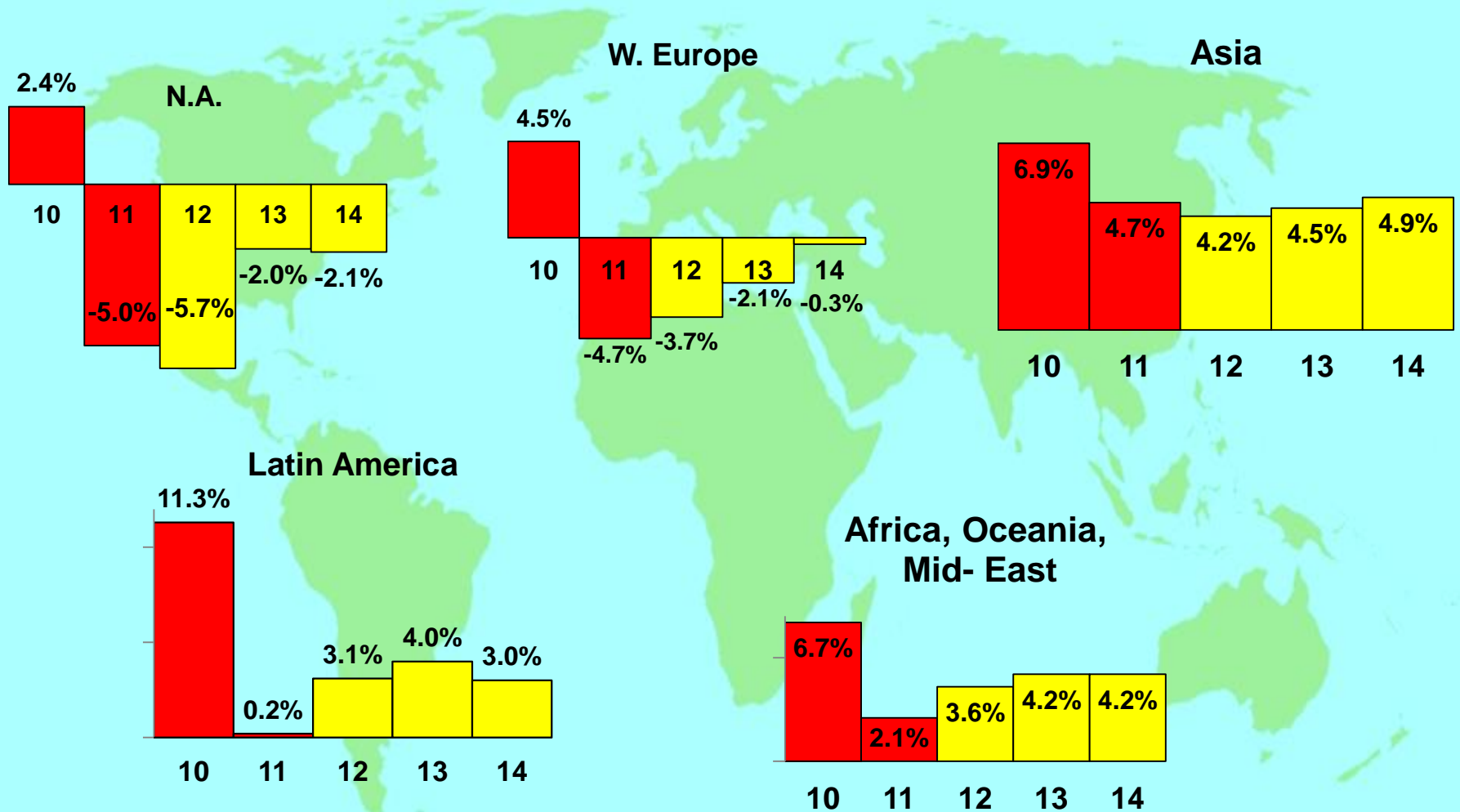
Euro Stabilizes But Downside Risk Is High



Source: Fed, RISI

P&W Growth Varies Across the World

Annual Growth in Printing & Writing Paper Demand

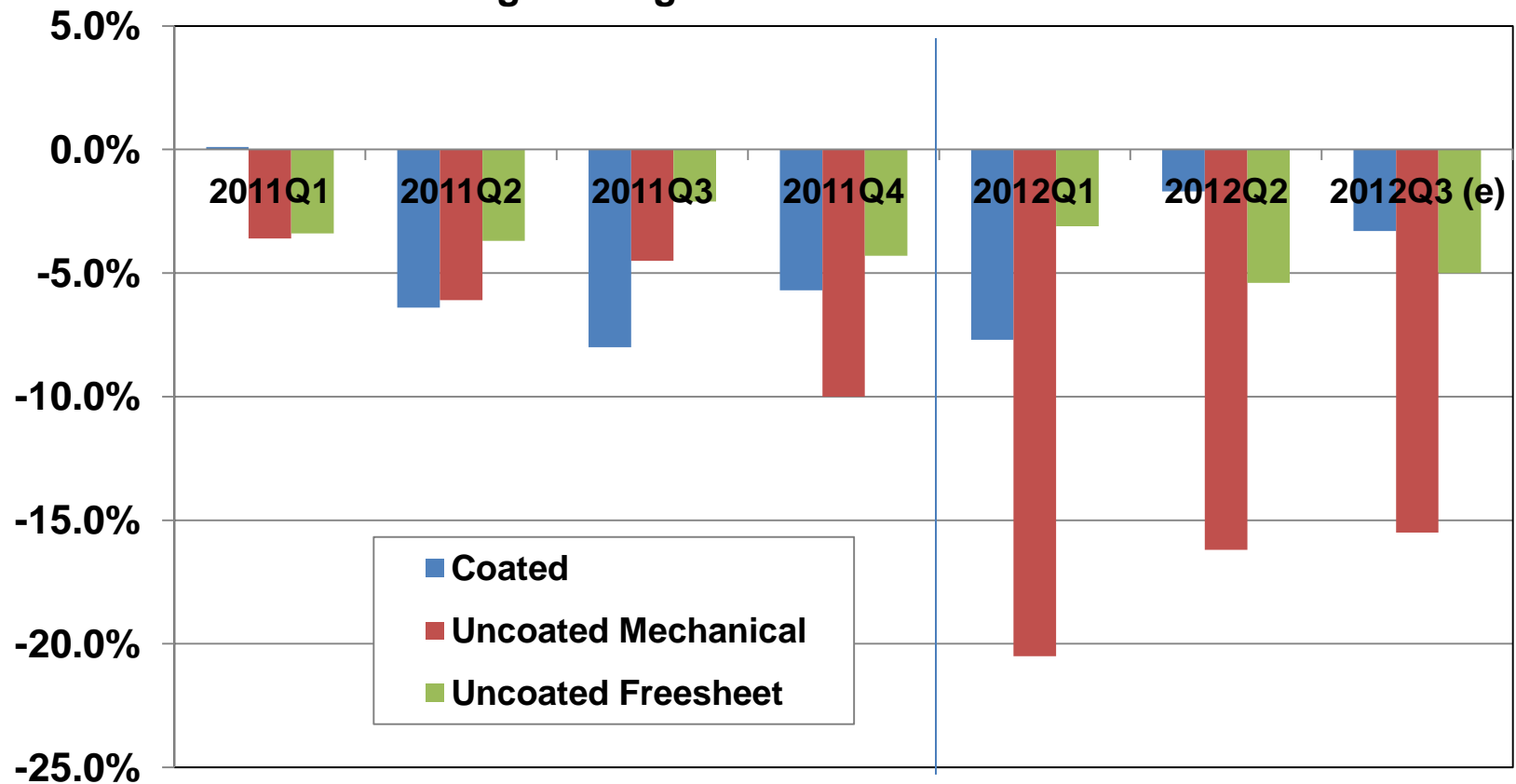


North American P&W Outlook Summary

- **Persistent demand decline, trending down 3%+ per year**
 - **Worse in 2012 due to weak economy and tablet growth**
- **Capacity shuts, conversions and restarts abound**
 - **Coated mechanical very tight this fall (99% cap), prices rising**
 - **Coated freesheet much weaker (90% cap), prices stable**
 - **Uncoated freesheet sluggish (91% cap) due to restarts and imports**
 - **Uncoated mechanical restarts will lead to low operating rates (90% cap), weak prices, and offsetting shuts elsewhere**

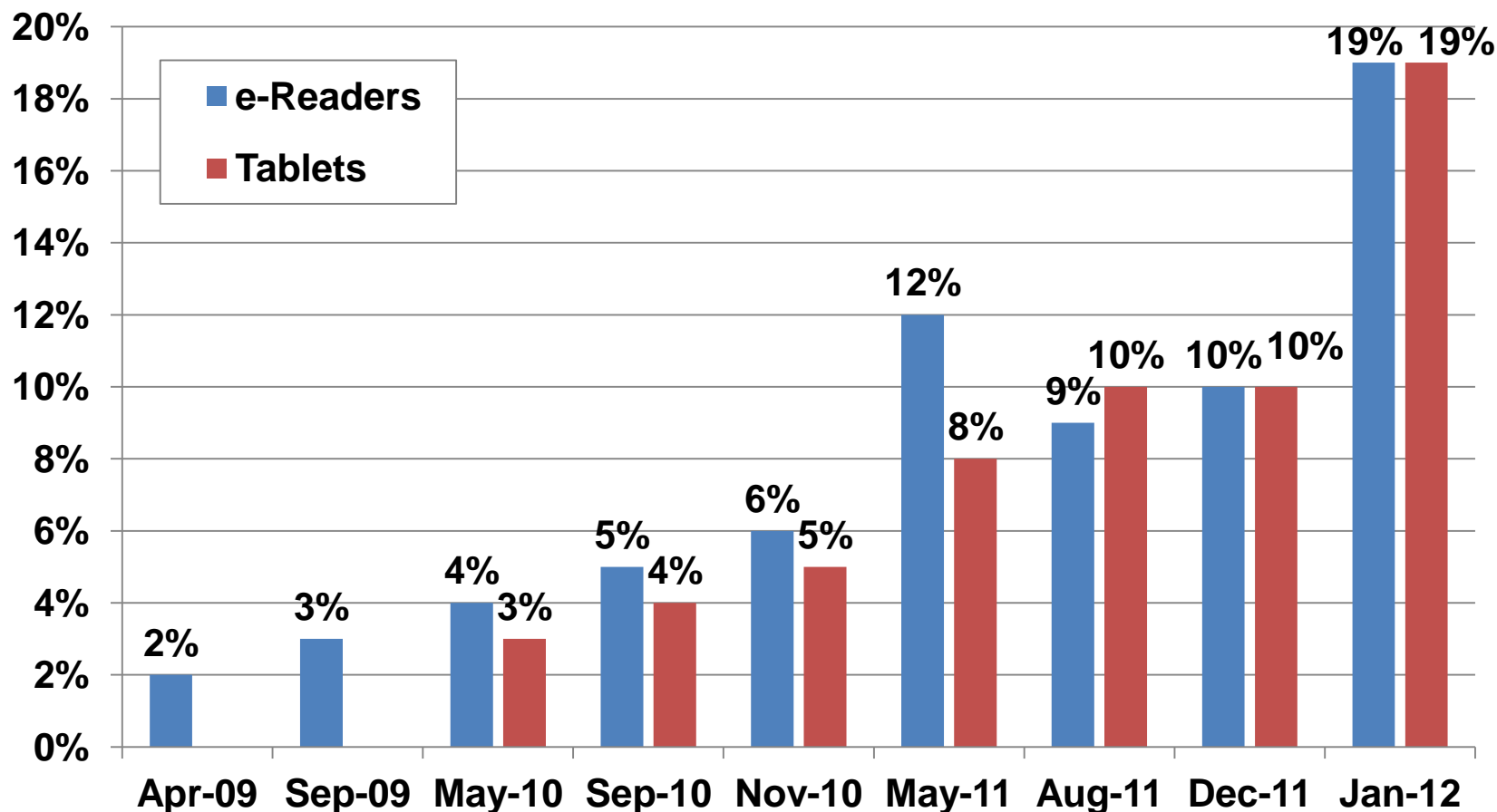
First Three Quarters Show Significant Deterioration in Demand from 2011

N. American P&W Demand
Percentage Change Over Same Period in Previous Year



Media Tablet Ownership Doubled Over the December 2011 Holiday

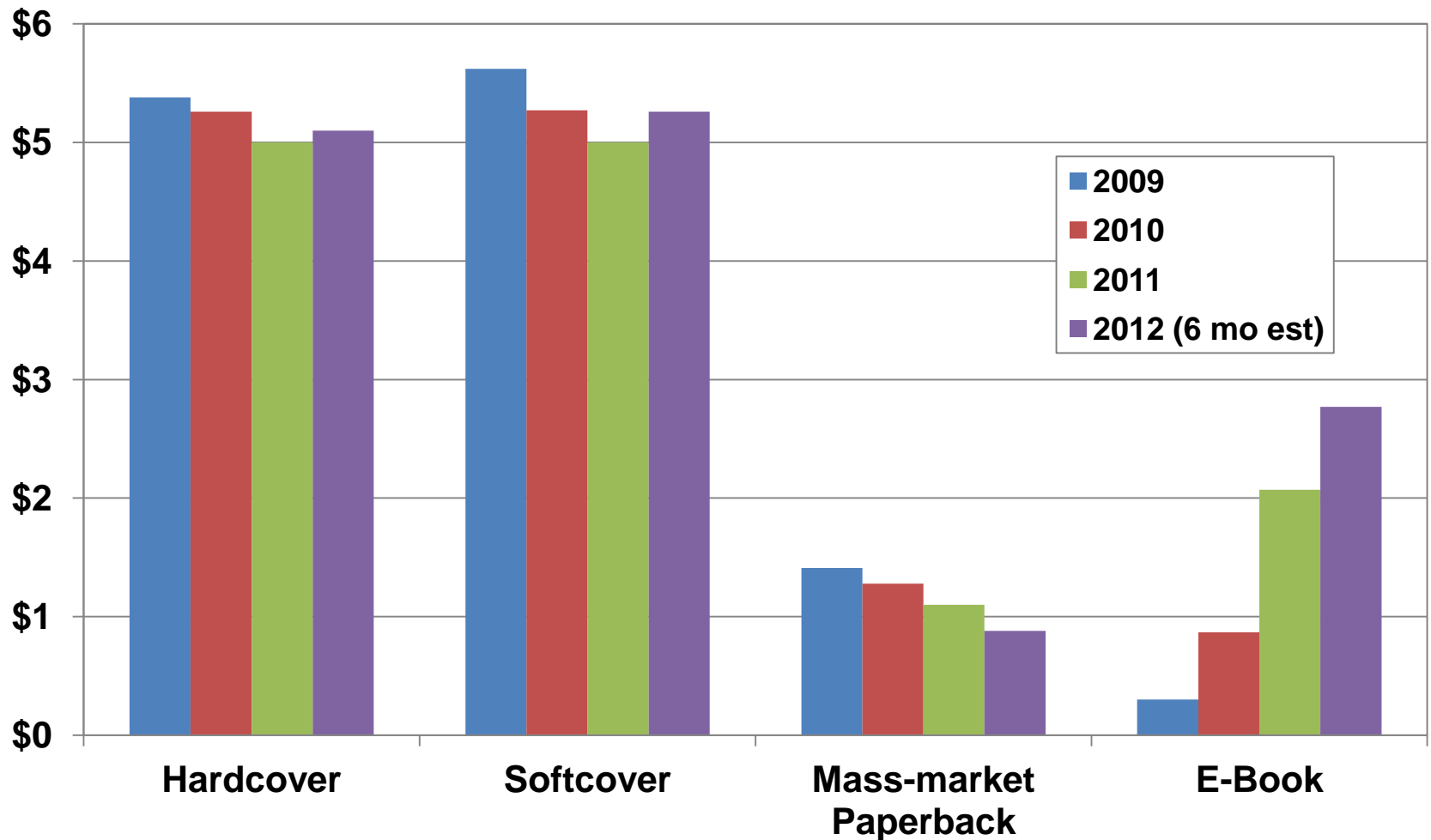
Percent of Adults Who Own Tablet Computers and E-readers



Source: pewinternet.org

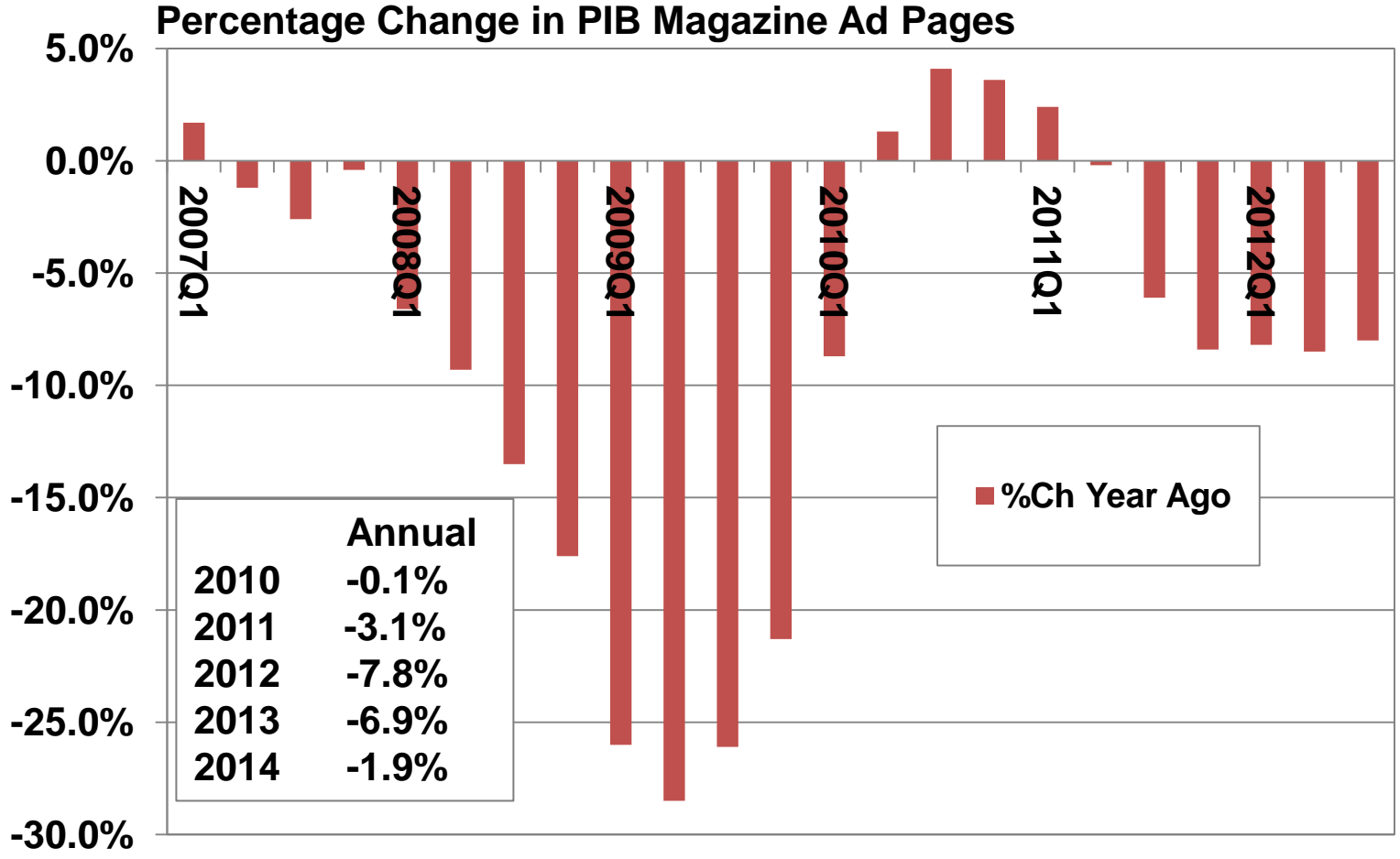
Adult Trade Book Sales

Billion US Dollars

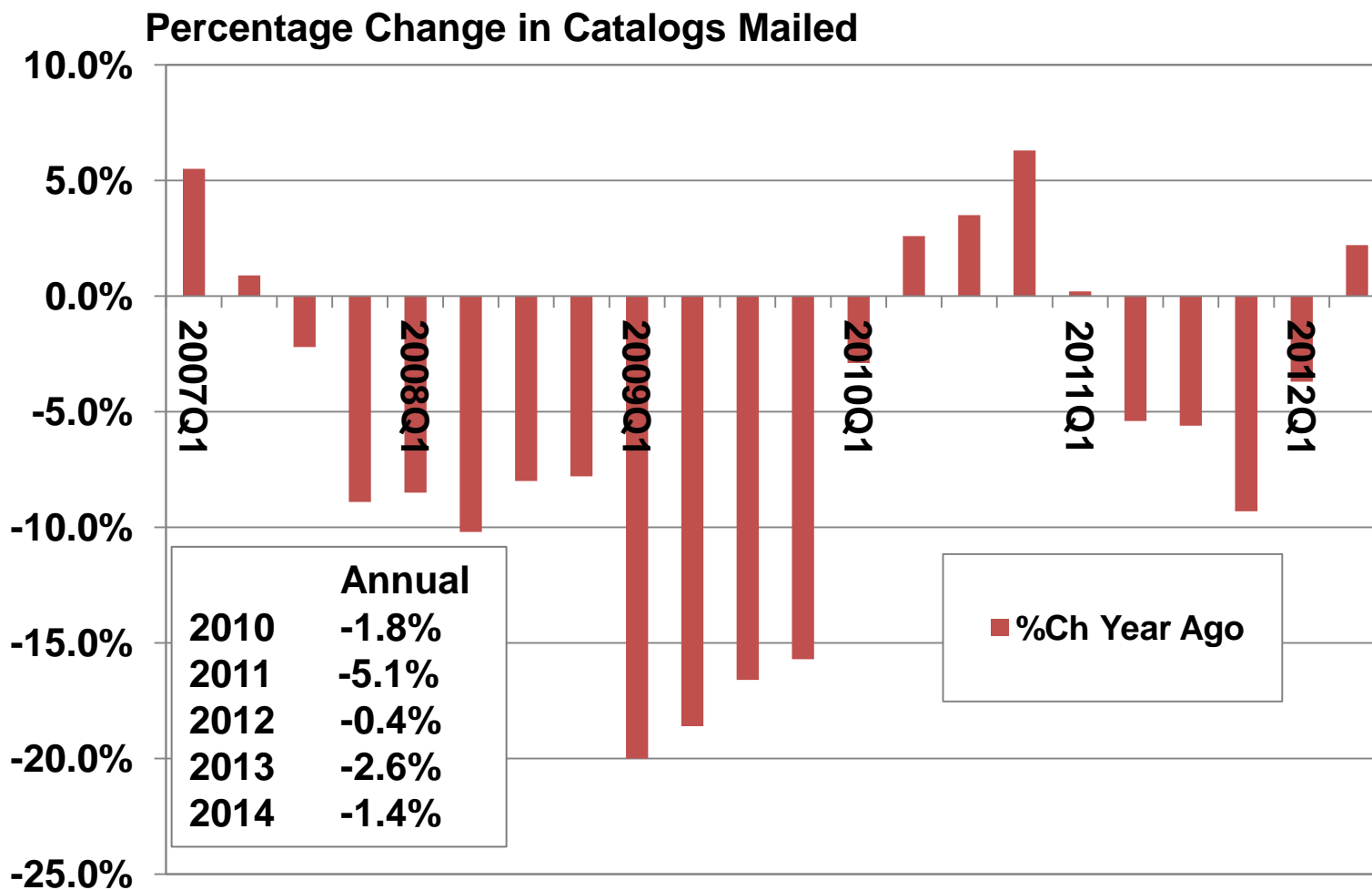


Source: BISG

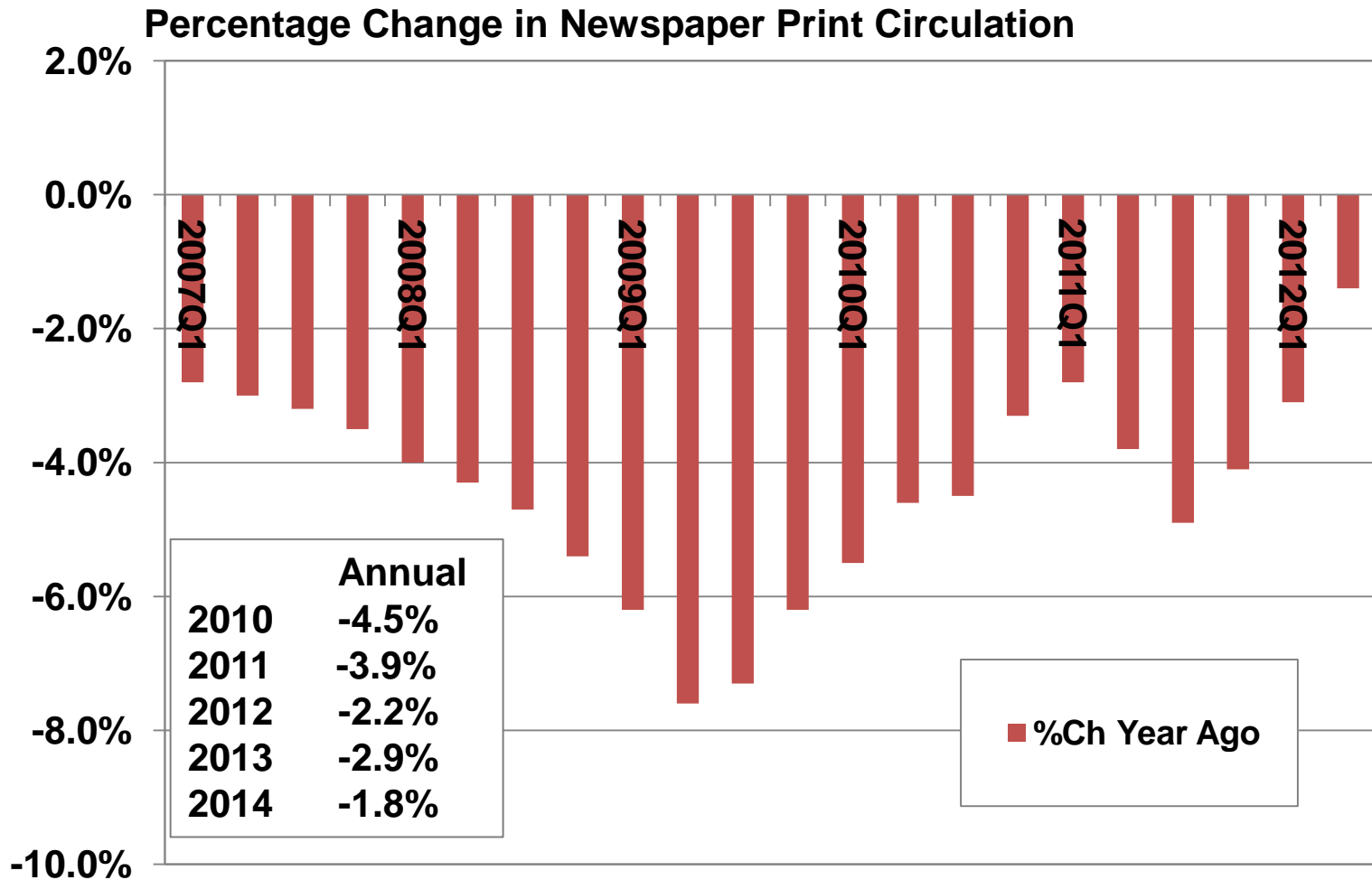
US Magazine Ad Pages Accelerating Down as Though in Recession



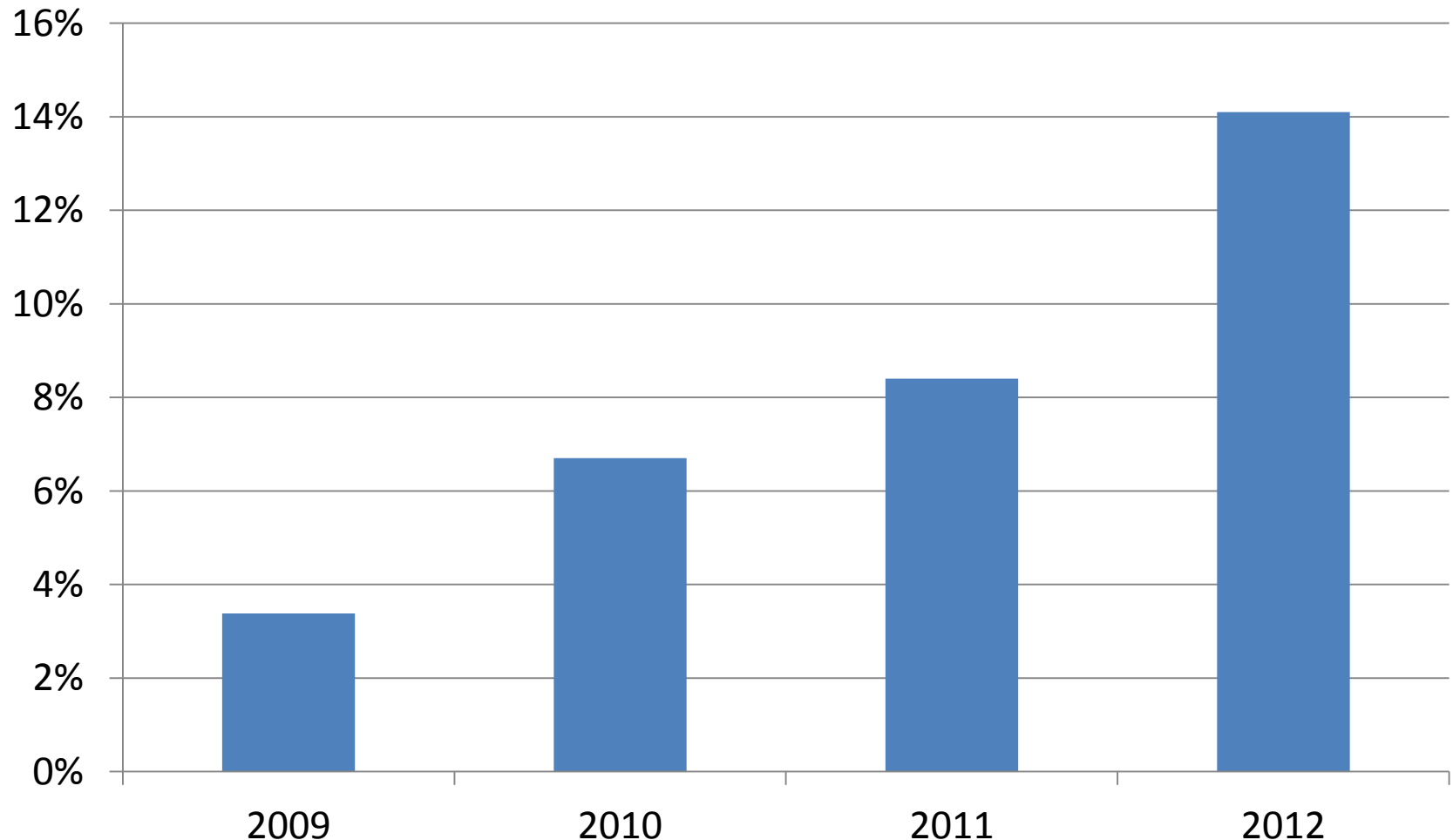
US Catalog Mailings Show Surprise Bump in Q2 Based on USPS Standard Flats Volume, Moderate Declines Will Return



Taking Out Digital Editions, Print Newspaper Circulation Continues to Slide 2-4% per Year



Percentage of Overall Newspaper Circulation Attributable to Digital Replica or Non-Replica Editions – Big Jump in 2012 Due to New Rules Allowing Double or Triple Counting



Source: ABC Fas-Fax
reports

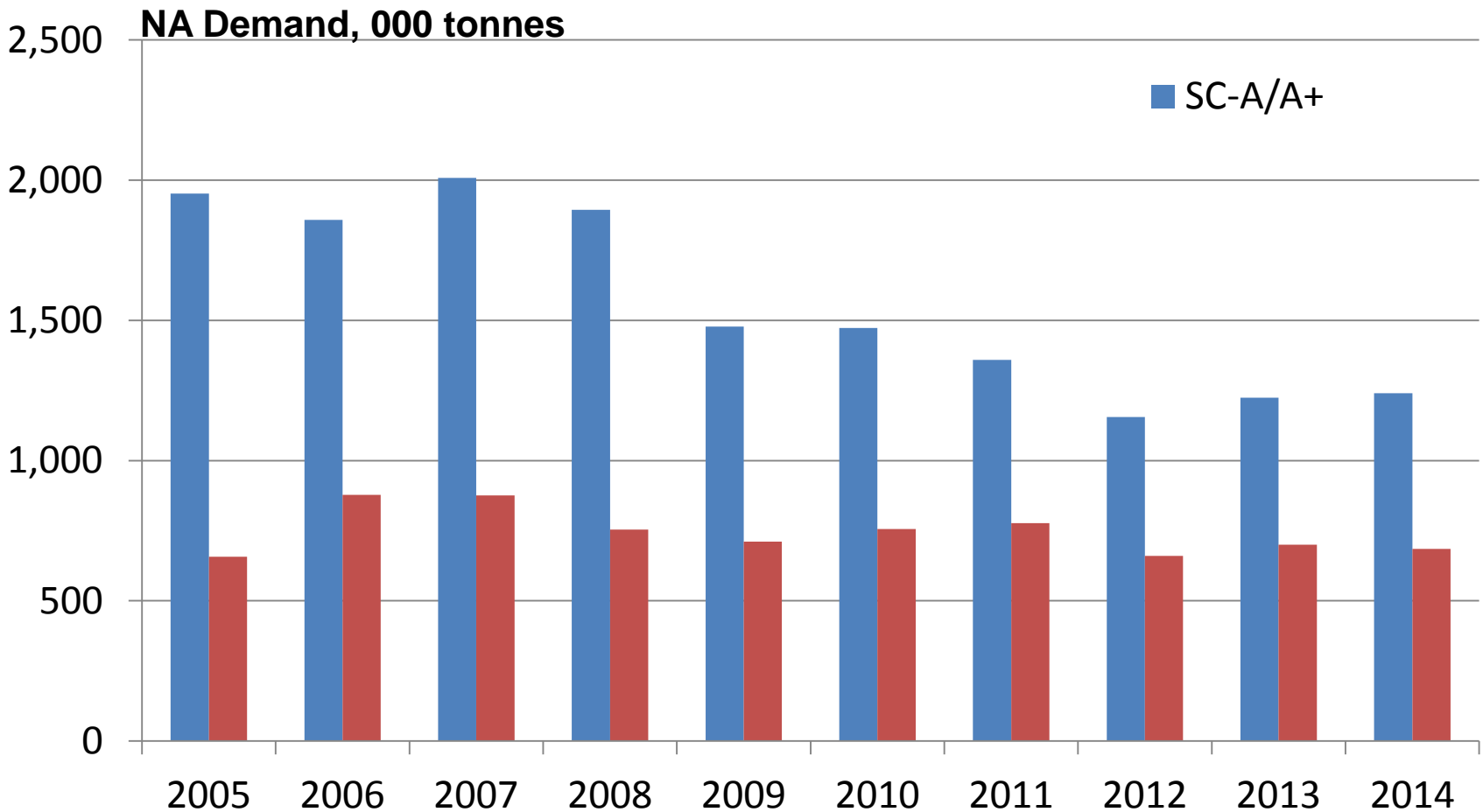
North American P&W Demand by Grade

Million Tonnes, % Change

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Ctd. Freesheet	4.04	4.70	4.54	4.30	4.20	4.13
%ch	-23%	16%	-3%	-5%	-2%	-2%
Ctd. Mechanical	3.87	3.99	3.67	3.60	3.30	3.23
%ch	-24%	3%	-8%	-2%	-8%	-2%
Unc. Freesheet	9.91	9.77	9.38	9.03	8.76	8.60
%ch	-12%	-1%	-4%	-4%	-3%	-2%
Unc. Mechanical	5.02	4.94	4.64	3.92	4.08	4.02
%ch	-16%	-2%	-6%	-16%	4%	-1%
SC	2.19	2.25	2.15	1.71	1.86(1)	1.83
%ch	-17%	3%	-4%	-20%	9%	-2%
Total	22.8	23.4	22.2	20.8	20.3	20.0
%ch	-18%	2%	-5%	-6%	-2%	-2%

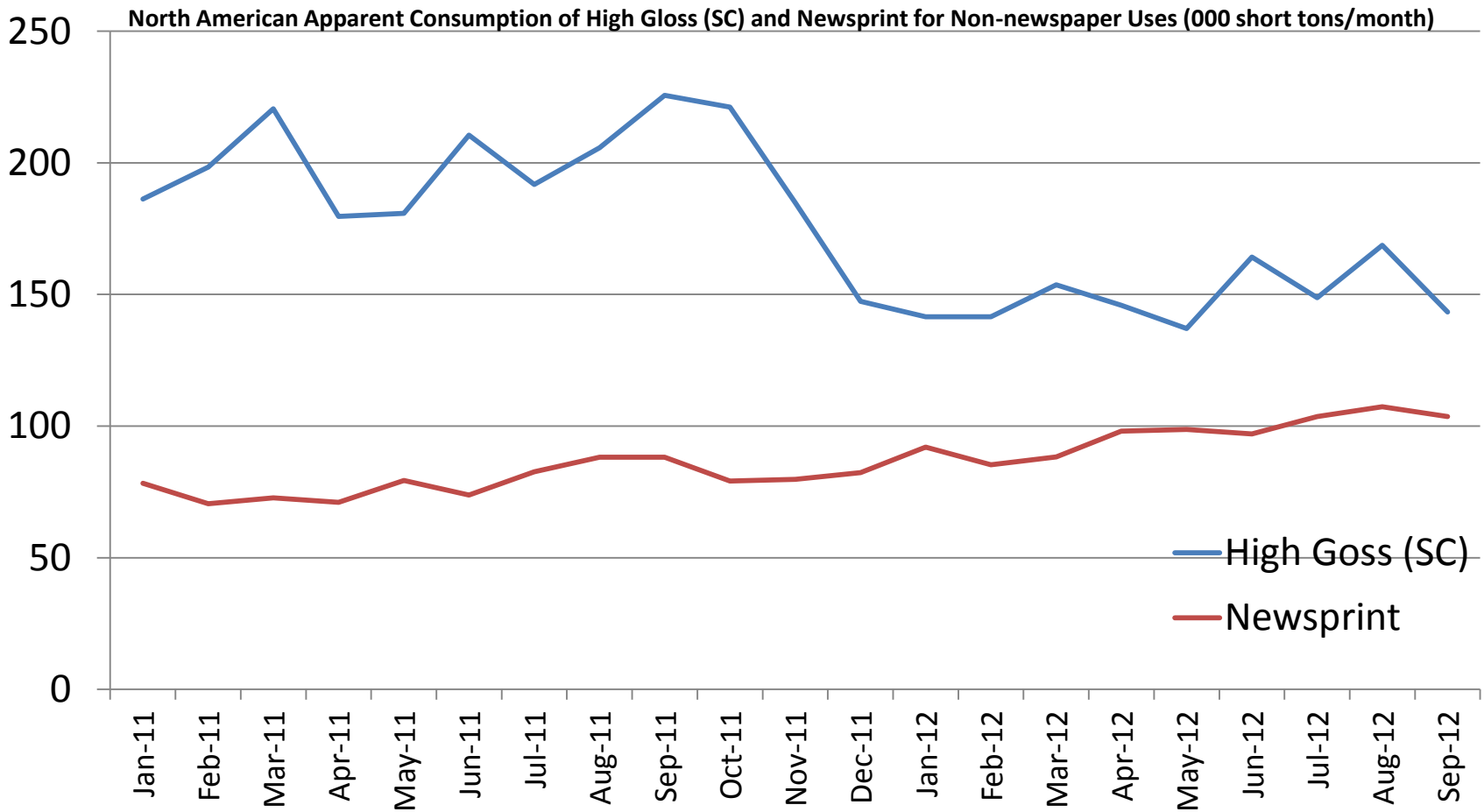
(1) Restart of Port Hawkesbury causing some shift back to SC by end-users.

SC-A/A+ has Declined While SC-B/SNC+ Gained Share over the Past Few Years, But that May Change With Port Hawkesbury Restart

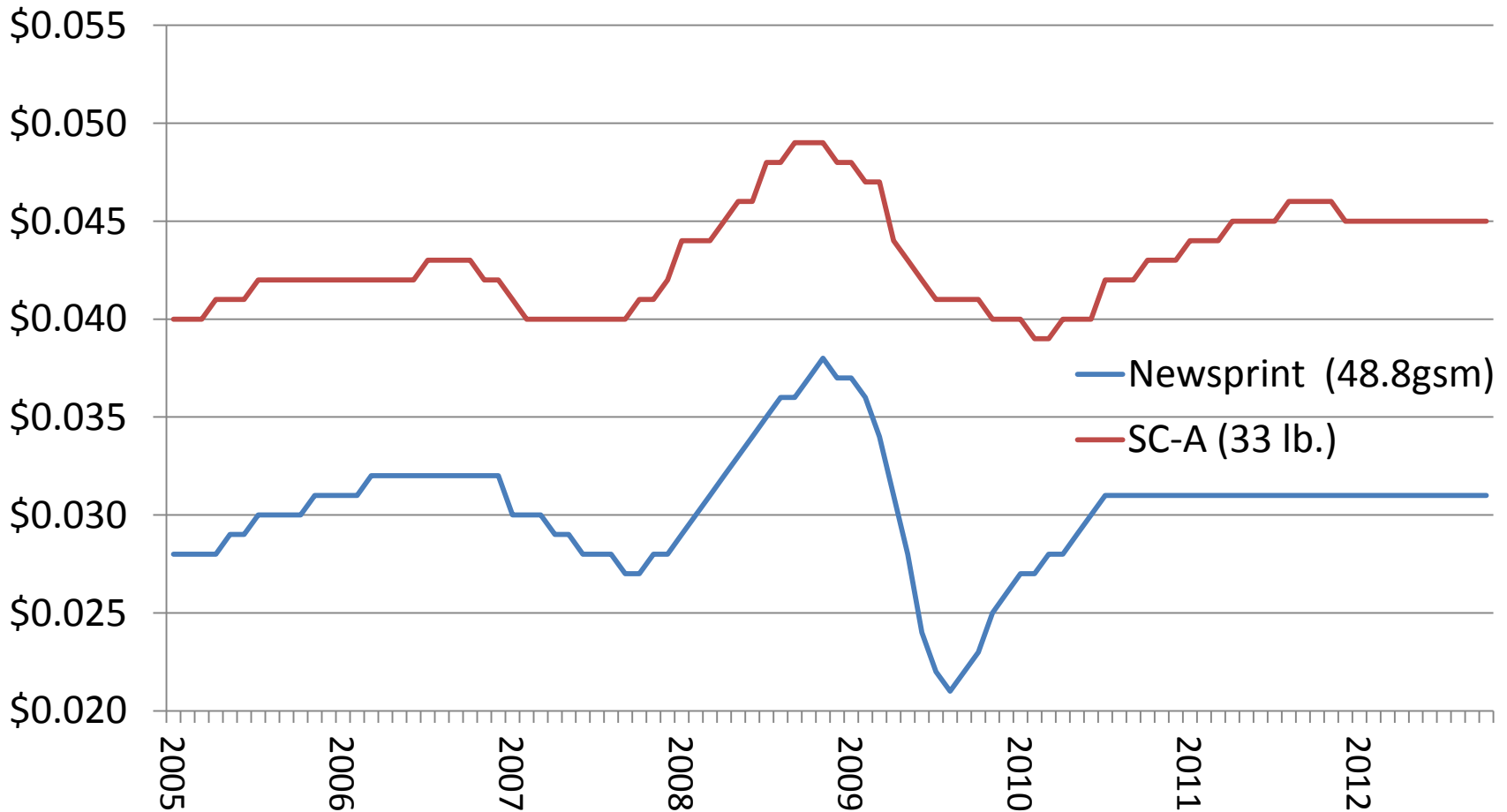


Source: PPPC

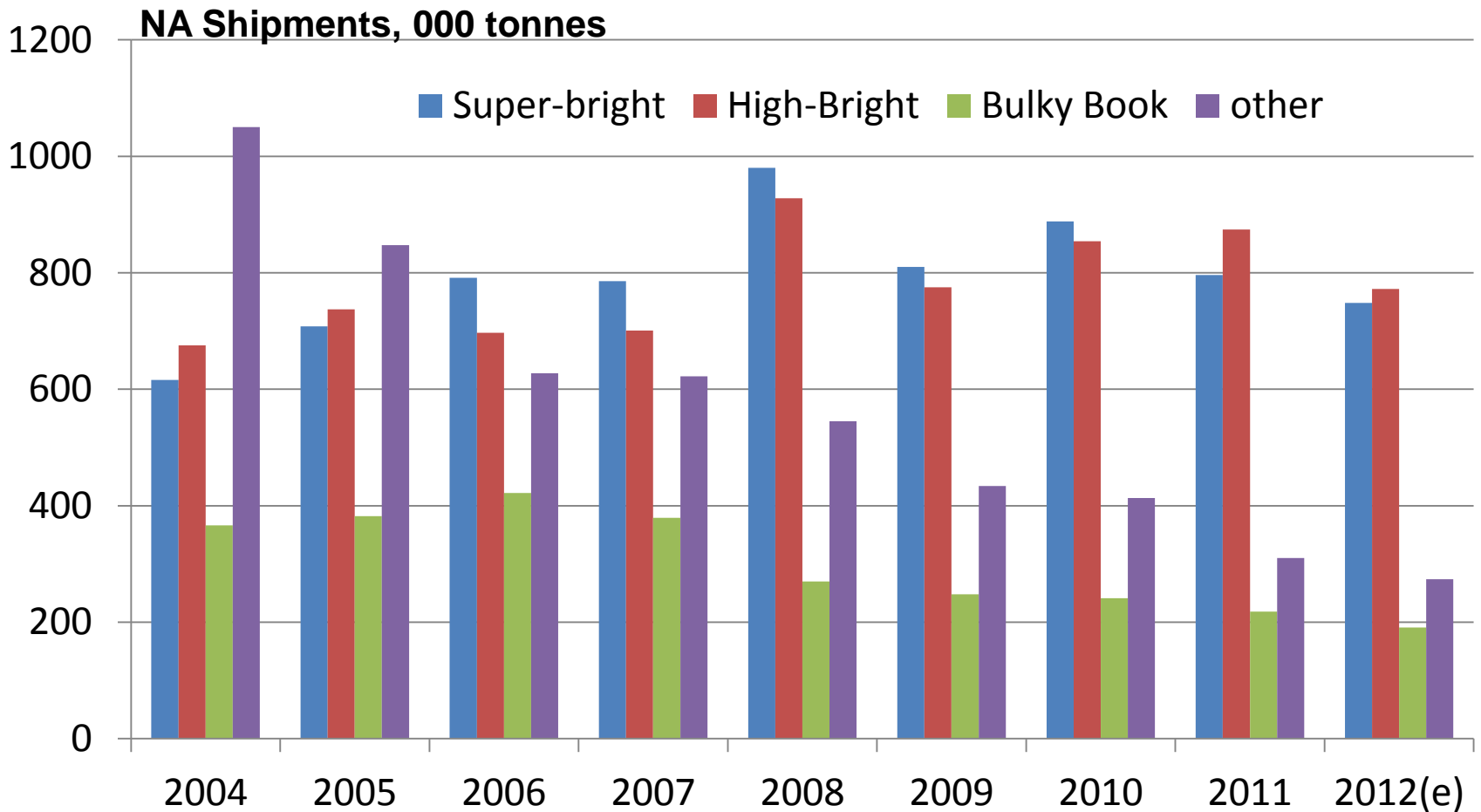
Use of Newsprint by Commercial Printers Has Increasingly Been Replacing Uncoated Mechanical Grades Such as SC



Cost of Newsprint vs. SC-A in Cents/Square meter of Surface Area



NA Shipments of Standard Umech by Grade Shows Trend Away from Bulky Book and Low Brightness Grades, to High Bright and Super-Bright



Source: PPPC

European P&W Outlook Summary

- **Persistent demand decline, similar to N. America**
 - 4% decline in 2012 very mild considering the economic woes in Europe
- **Capacity declining since 2006**
 - 2012 shows the sharpest capacity reduction ever (6.3%)
 - Operating rates rise from 87% in 2011 to 89% in 2012
 - Overcapacity still an issue despite shuts
 - More shuts expected in 2013/2014
- **Exports**
 - Now 26% of shipments in W. Europe vs. 8% in N. America
 - Exports falling as capacity shuts in Europe and Asian competition in offshore markets trump the weaker euro
- **New wave of industry consolidation expected**
 - Particularly in newsprint, coated woodfree and uncoated woodfree

W. European P&W Demand by Grade

Million Tonnes, % Change

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Ctd. Freesheet	6.00	6.18	5.80	5.73	5.70	5.71
%ch	-17%	3%	-6%	-1%	-1%	0%
Ctd. Mechanical	5.56	5.90	5.72	5.28	5.24	5.25
%ch	-20%	6%	-3%	-8%	-1%	0%
Unc. Freesheet	7.60	7.98	7.62	7.35	7.12	6.98
%ch	-8%	5%	-5%	-4%	-3%	-2%
Unc. Mechanical	4.45	4.50	4.38	4.24	4.19	4.20
%ch	-10%	1%	-3%	-3%	-1%	0%
Total	23.6	24.6	23.5	22.6	22.2	22.1
%ch	-14%	4%	-4%	-4%	-2%	-1%

Asian P&W Outlook Summary

- **47 million tonne market with consistent growth of 4-5% per year**
 - **Very heavily focused in woodfree grades**
- **Chinese government trying to rein in excess capacity**
 - **Forced closure of small, old, polluting mills**
 - **Reduced aid for new expansions in markets with oversupply**
 - **Results in significant increase in Chinese operating rates**
- **Export focus shifting from coated to uncoated woodfree**
 - **Uncoated woodfree capacity still expanding**
 - **Export prices for uncoated woodfree are higher**
 - **Exports should peak in 2014**

Asian P&W Demand by Grade

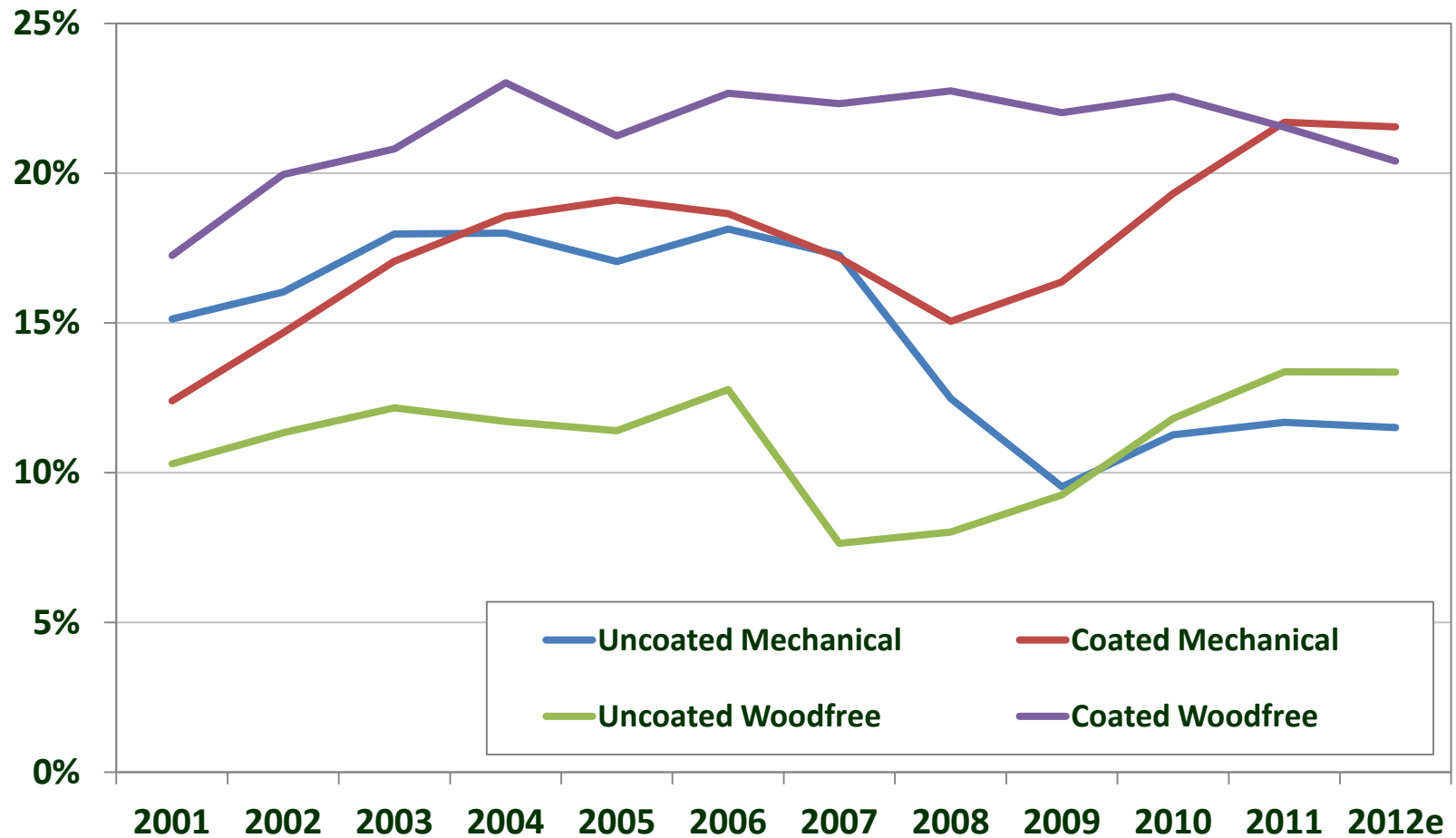
Million Tonnes, % Change

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
Ctd. Freesheet	11.15	12.20	12.72	13.34	13.97	14.71
%ch	-9%	9%	4%	5%	5%	5%
Ctd. Mechanical	2.96	3.12	3.15	3.25	3.43	3.66
%ch	-4%	5%	1%	3%	6%	7%
Unc. Freesheet	24.71	25.78	27.09	28.20	29.42	30.81
%ch	1%	4%	5%	4%	4%	5%
Unc. Mechanical	2.70	3.32	3.52	3.66	3.79	3.94
%ch	14%	23%	6%	4%	4%	4%
Total	41.5	44.4	46.5	48.4	50.6	53.1
%ch	-2%	7%	5%	4%	4%	5%

Paper Trade & Supply Issues

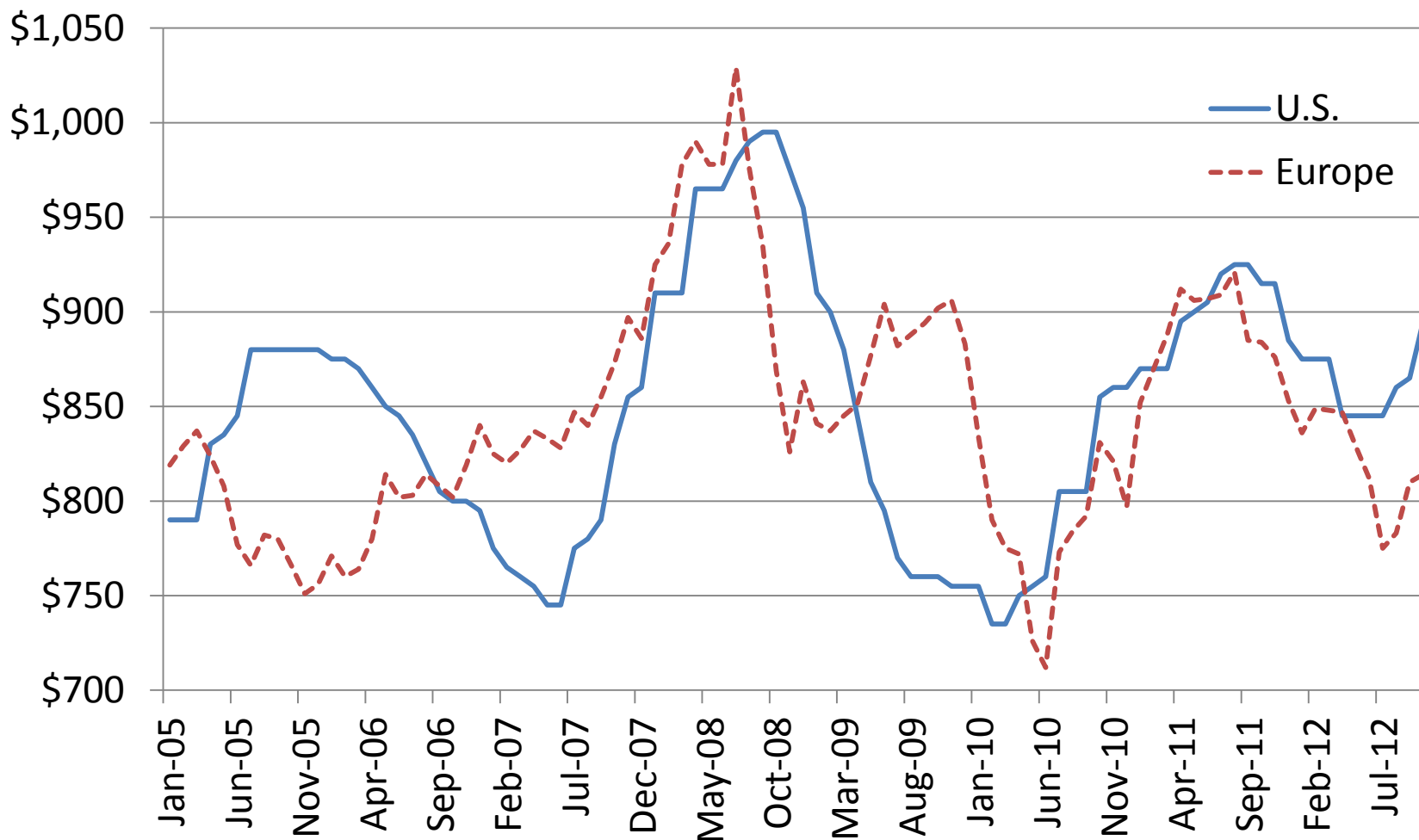


European Offshore Exports as Share of Production



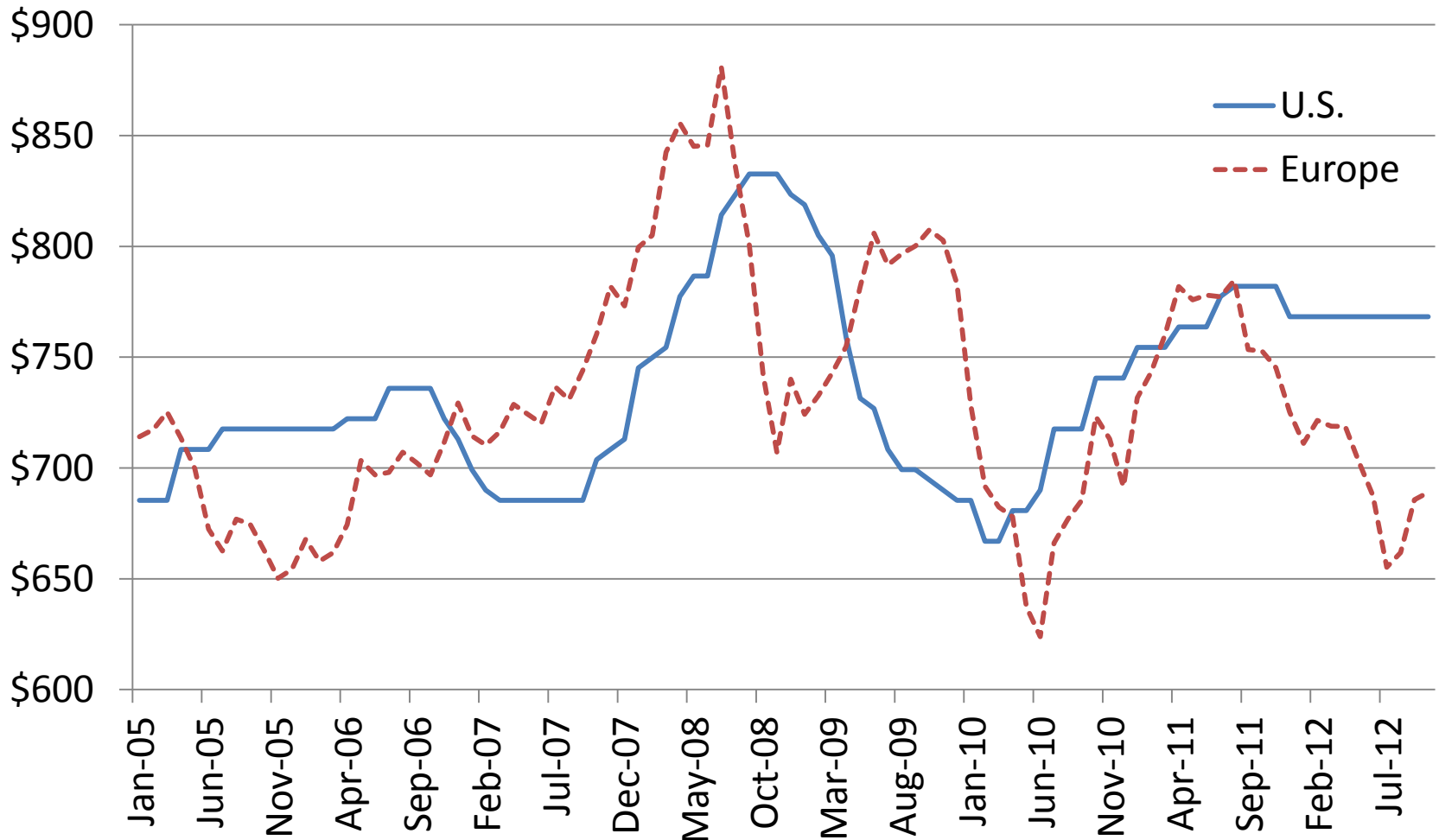
The Weak Euro is Making US Prices Look High Compared With Europe

..Price for 40 lb/60 gsm LWC in USA vs. Europe



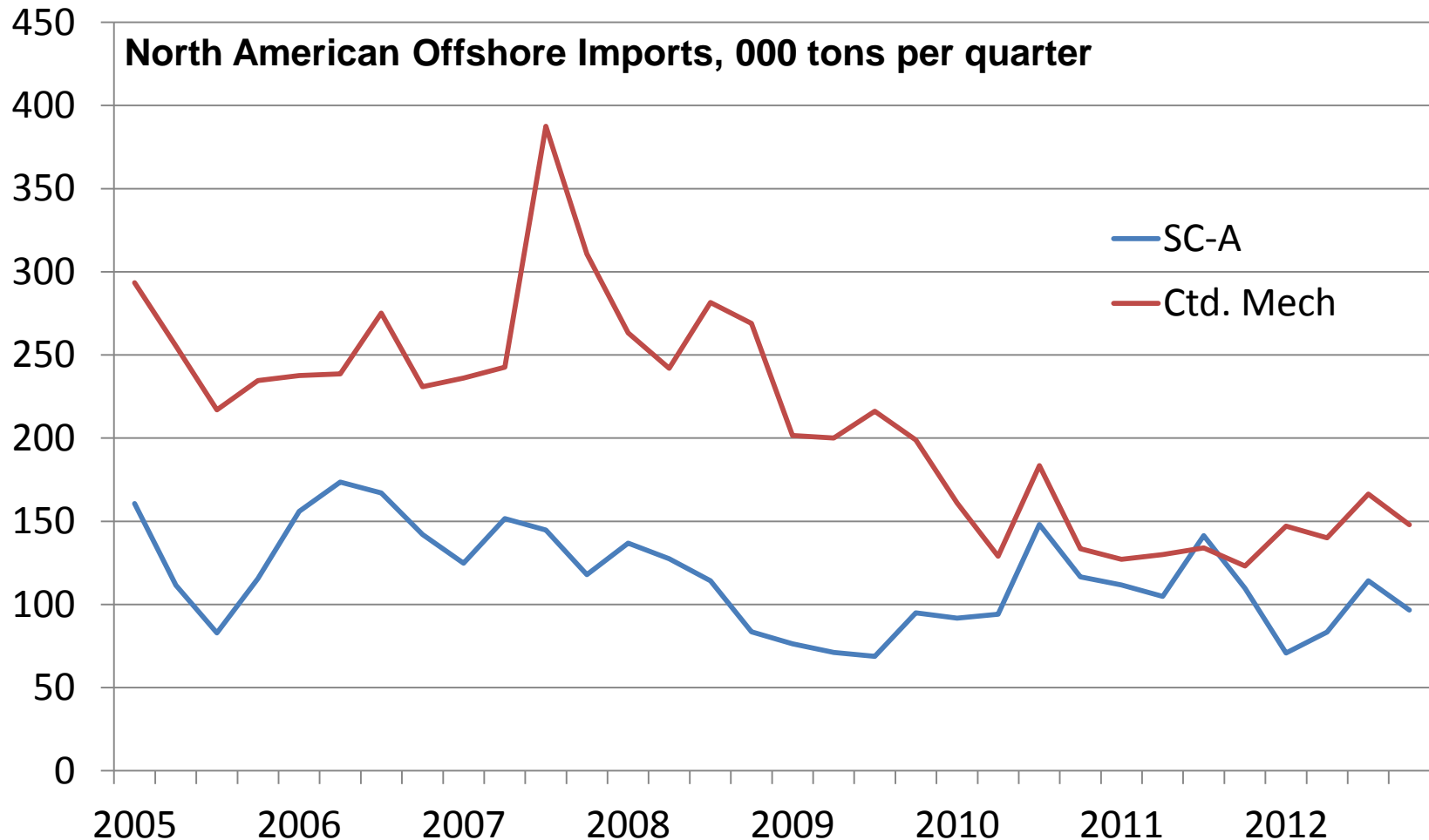
...And Even More So for SC

..Price for 35 lb SC-A in the U.S. vs. 56 gsm SC-A in Europe

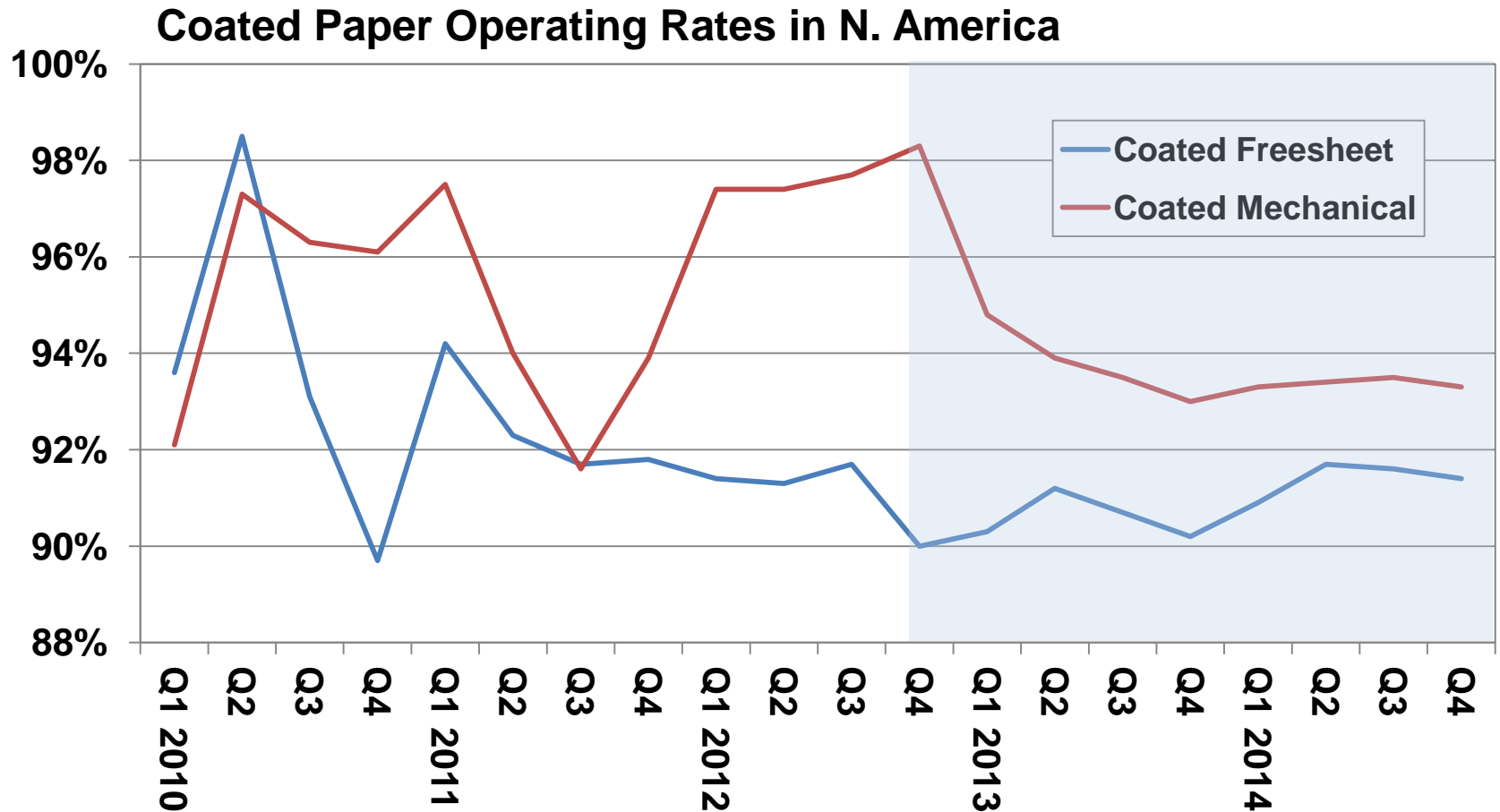


Note: RISI SC printer price index discounted by 8% to more closely reflect actual transaction prices with retailers

North American Imports of Coated Mechanical and SC From Europe Trending Down... But Will They Continue to Do So With Weak Euro and US Prices That Look High Compared With Europe?

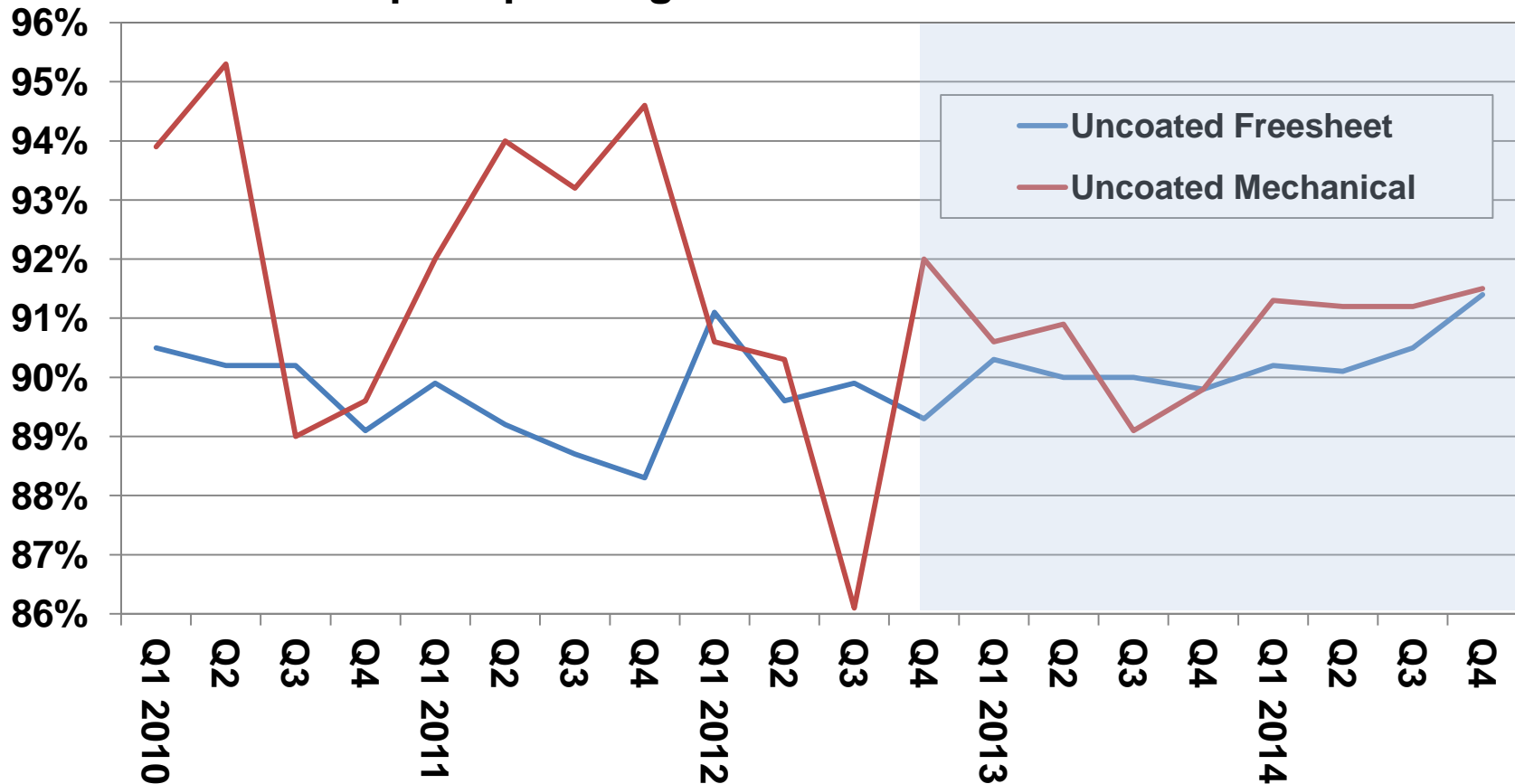


Coated Freesheet Operating Rates Stay at 90-92%, but Coated Mechanical Very Tight in Second Half of 2012 due to Shuts

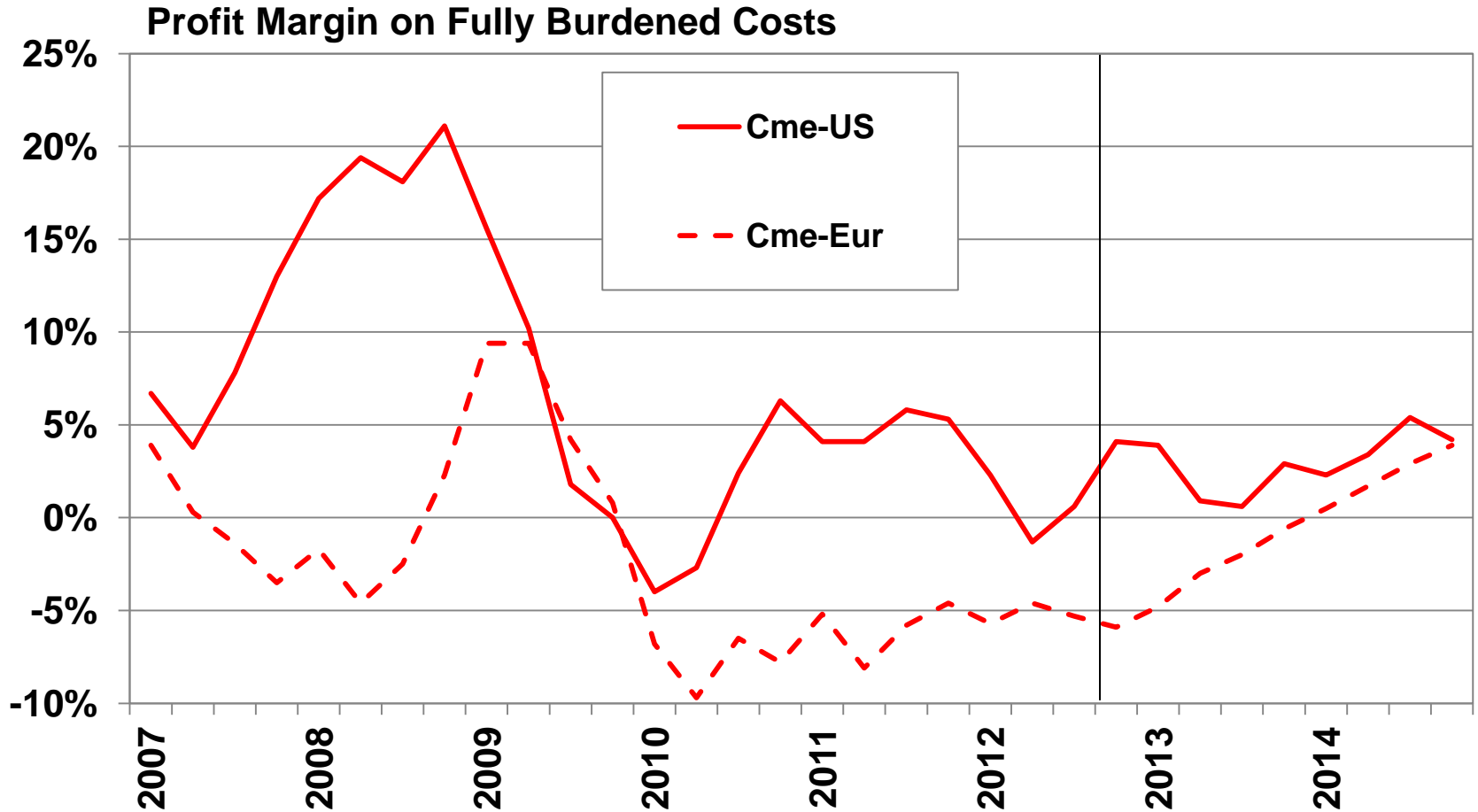


Unc. Mech. Operating Rates Weaken From 92% in Late 2012 to 89% by Mid-2013 and Could Be Worse if Not For Assumed Shuts and Dubious Forecast of Falling Imports From Europe

Uncoated Paper Operating Rates in N. America

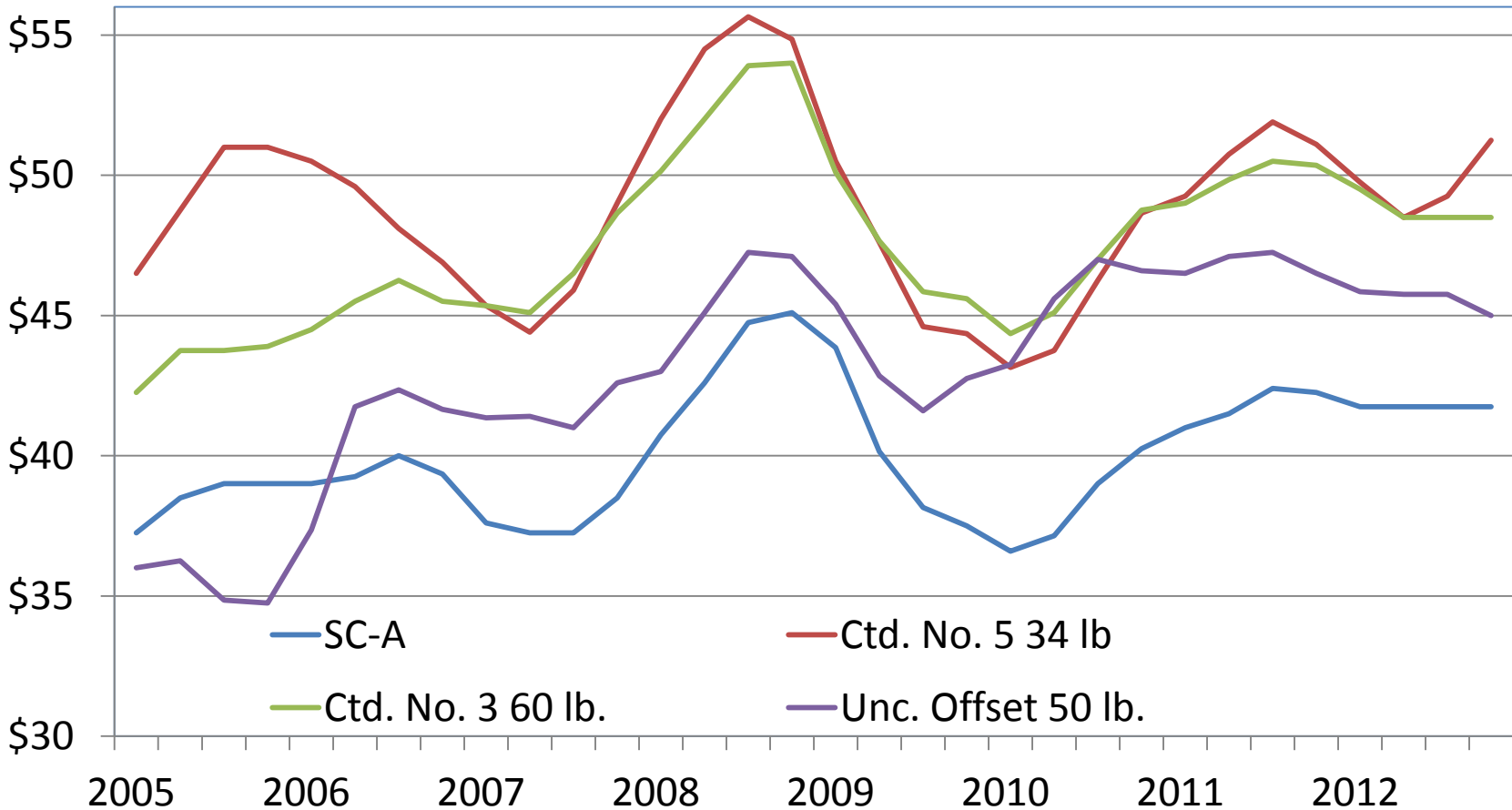


Many Coated Mills Are Still Struggling to Get Positive Profitability on Total Costs



Fully burdened costs include delivery, SG&A, interest, and depreciation

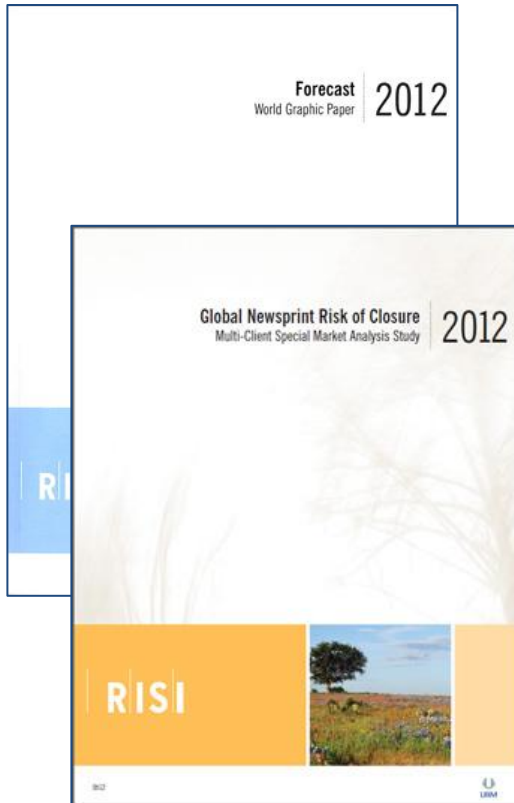
Historical Trends for Publishing Paper Prices (\$US/cwt)



Note: SC-A is printer price, discounts of 8% are typical for 6/12 month contract business

Thank you for your attention!

For more information:



World Graphic Paper 5-Year Forecast

www.risiinfo.com/risi-store/do/product/detail/world-graphic-paper-forecast.html

Global Newsprint Risk of Closure Study

www.risi.com/gnr

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