



# STATE OF THE INDUSTRY REPORT 2011

As presented at the 2012 Convention March 27, 2012



# Report Elements

- **Industry Issues & Concerns**
- **Revenue and Growth**
- **Profitability**
- **End Use Markets**
- **Foreign Trade**
- **Safety, Health and Environmental**
- **Outlook/Summary**



# Management Information Committee

- ▣ **Heather Buchholz**  
Sun Chemical / NA Inks
- ▣ **Dave Franklin**  
INX International Ink Co.
- ▣ **Rick Gray**  
Color Resolutions International
- ▣ **Alan Kalmikoff**  
Keim-Additec Surface USA
- ▣ **Jeffrey Koppelman**  
Gans Ink & Supply Co.
- ▣ **Rick Krause**  
BASF Corporation
- ▣ **James Leitch**  
Braden Sutphin Ink Co.
- ▣ **Joe LeVine**  
Resinall Corporation
- ▣ **Kim Stone**  
Flint Group



# Source Data for Report

- ▣ **Quarterly Sales Report**
  - Collected Quarterly from members
- ▣ **Outlook Survey**
  - Collected once a year in January from members
- ▣ **Operating Ratio Survey**
  - Collected once a year in January from members
- ▣ **U.S. Commerce Dept., Bureau of Labor Statistics, OSHA**



- ❖ **Certified Public Accountants and Consultants are located in Washington, DC and Chicago. They specialize in exclusive service to the nonprofit associations.**
- ❖ **Among their numerous clients are Flexible Packaging Association, American Plastics Council, National Wholesale Druggists' Association and Paperboard Packaging Council.**



# Industry Issues & Concerns

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# TOP CURRENT CONCERNS

## Overall

1. Economic Activity (1)
2. Customer Consolidations/Closings (2)
3. Imports (3)

## Market

1. Raw Material Costs (1)
2. Market Competition (3)
3. Raw Material Availability (2)
4. Market Dynamics (-)

## Internal

1. Qualified Worker (5)
2. Transportation Costs (2)
3. Health Care Costs (1)
4. Workers Comp Costs (3)
5. Wage Rate Structure (4)

## Ink Companies Say Printers Value:

1. Product Consistency (1)
2. Price (2)
3. R&D/New Product Dev'l (-)
4. Technical Support (3)

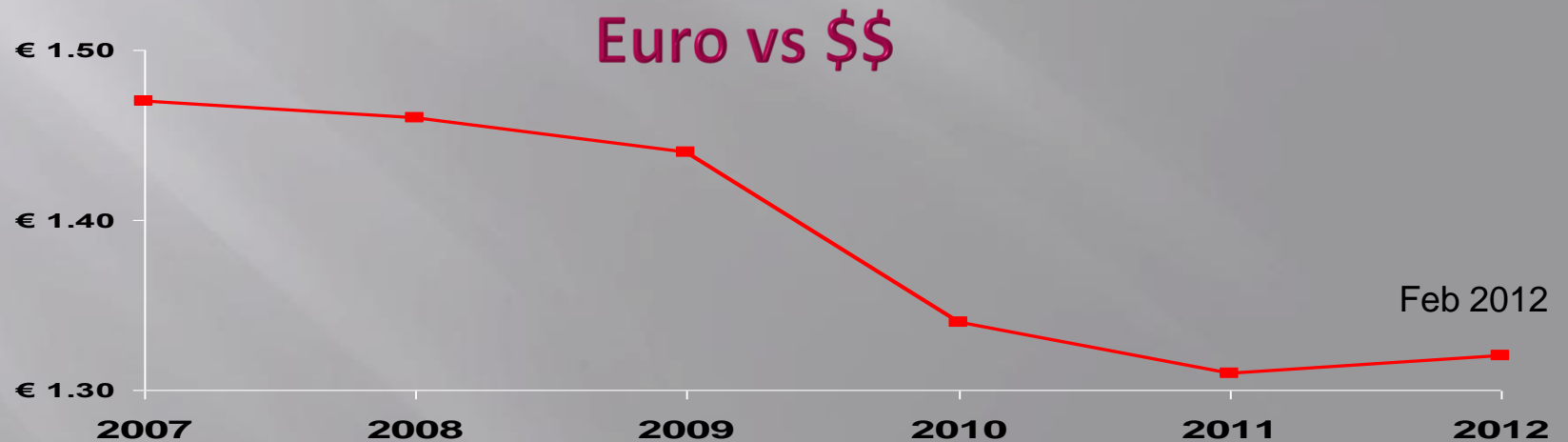
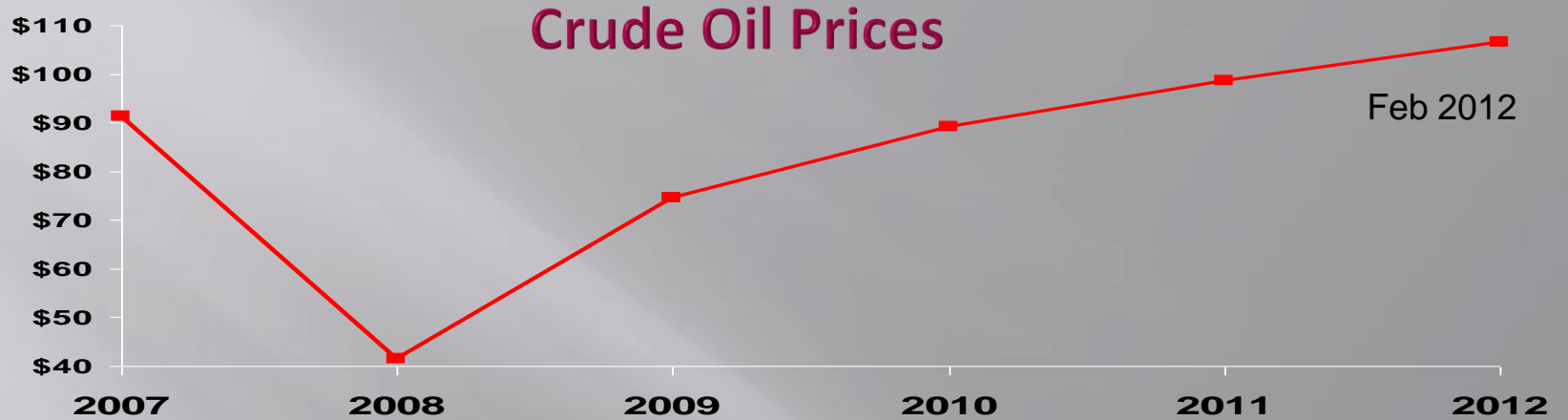
## Suppliers Say Ink Companies Value:

1. Technical Support (4)
2. Price (1)
3. Product Consistency (2)
4. Quick Delivery (3)

**Source: Outlook Survey**



# Global Concerns



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# Industry Raw Materials Update

## Hydrocarbon Resins

- Feedstocks
- New Discoveries
- Competing Applications
- Demand for Rosin-based Resins
- Predictions

## Solvents and Oils

- WTI Climbs
- Supply Disruptions
- Diesel Demand Grows
- Global Oil Demand
- Predictions



# Raw Materials

## Gum Rosin

- Price Level
- Current Demand
- Supply Situation - China

## Acrylics

- Availability
- Demand
- Competing Applications
- Costs
- Methacrylate Availability
- Acrylic Monomers



# Raw Materials

## UV Materials – Key Market Drivers

- Price of Acrylic Acid and Acrylates
- Global Acrylic Capacity Expands
- U.S. Production Issues
- Epoxy Resin Price
- Predictions

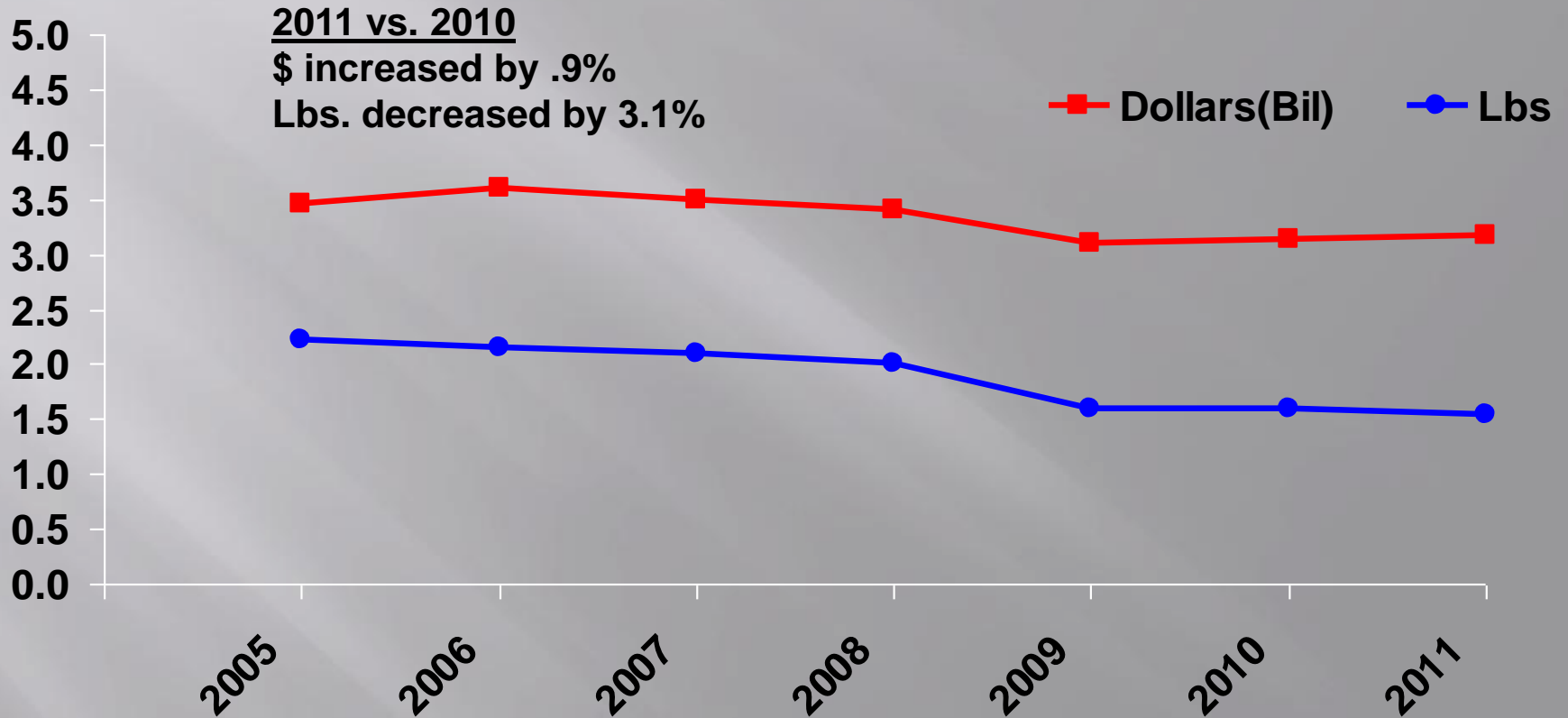


# Revenue and Growth

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# U.S. Printing Ink Sales\*



\* Excludes screen, textile, digital, & non impact inks

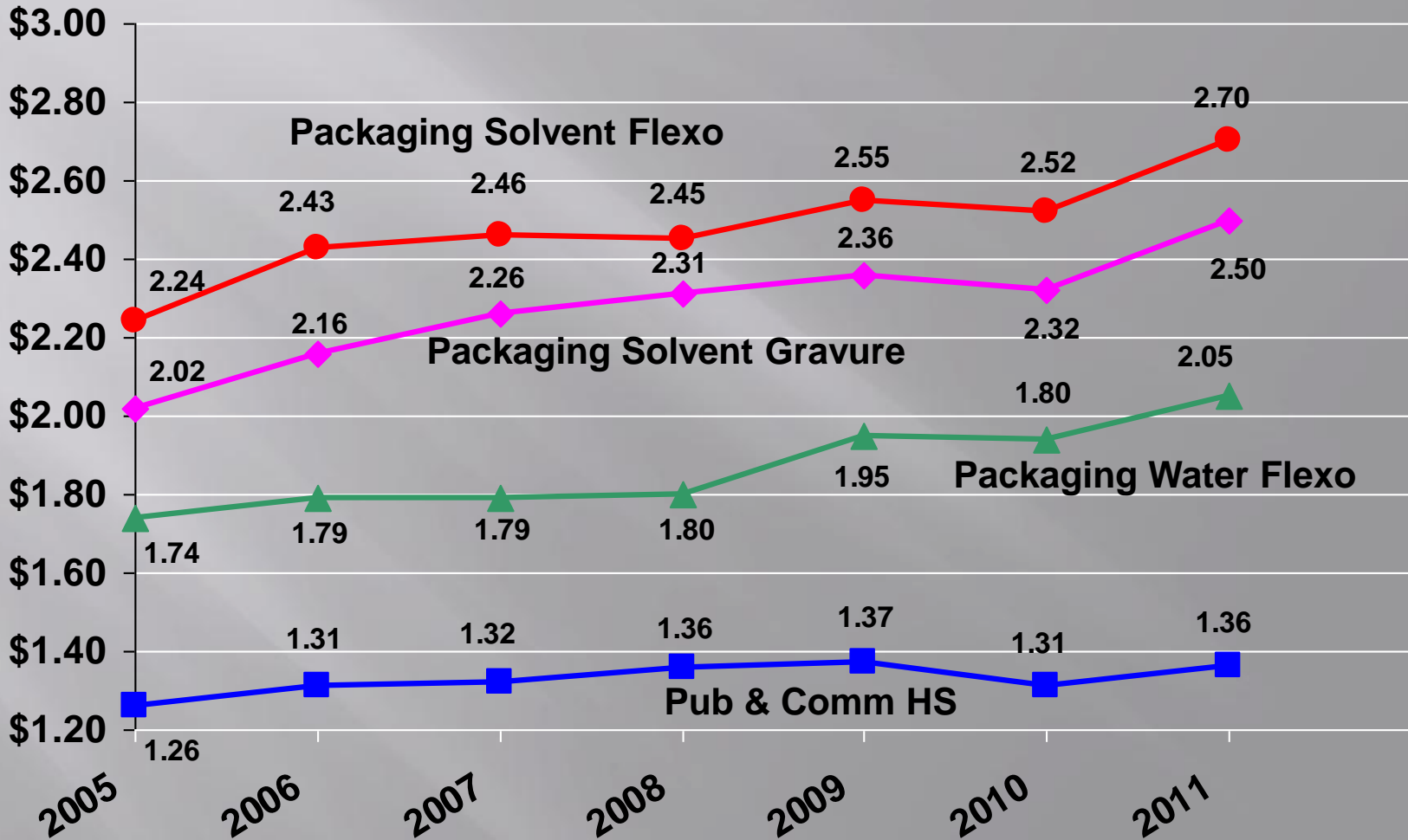
Source - NAPIM QSR

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# Average Selling Prices

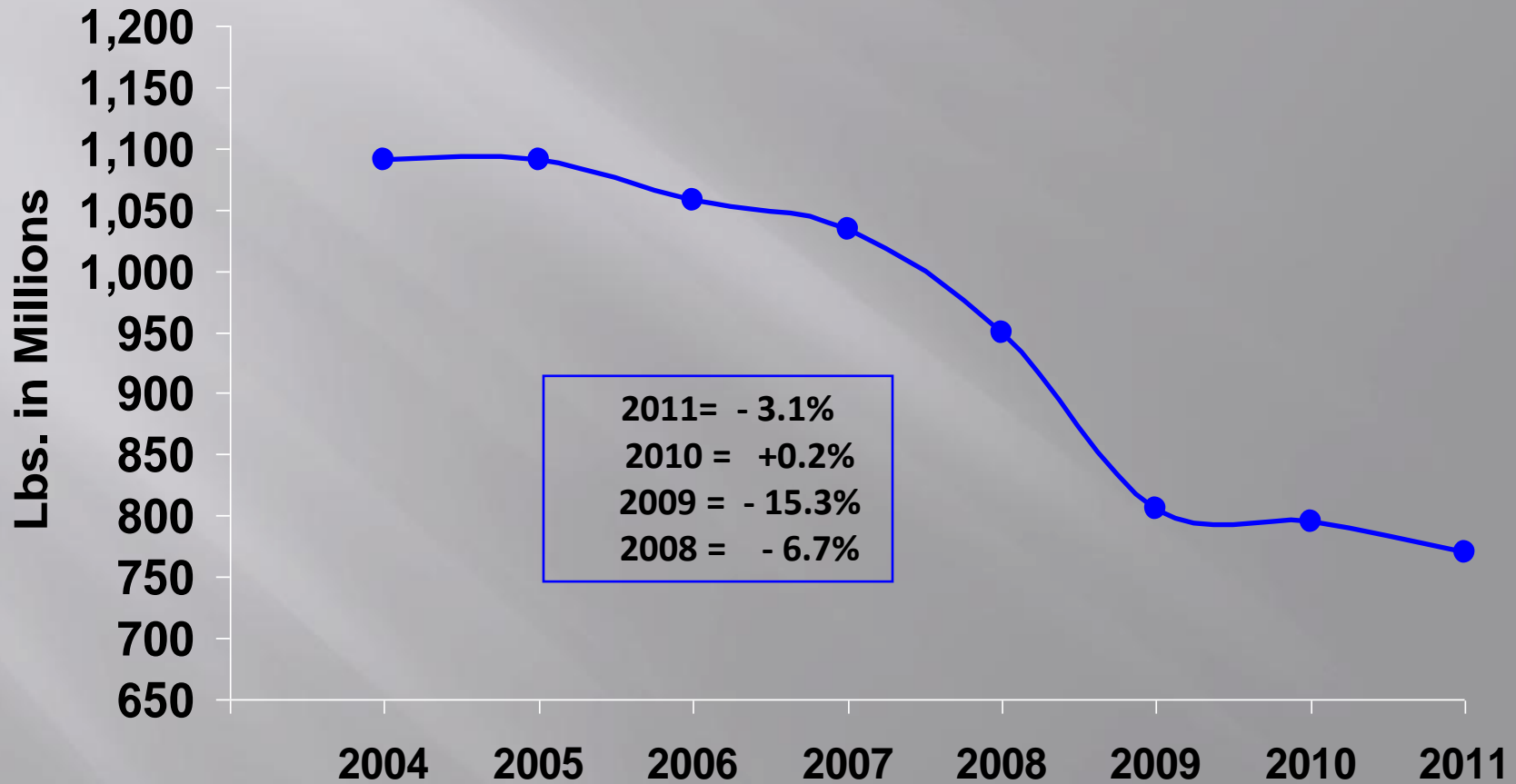
## Offset Heatset and Gravure & Flexo Packaging



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# Lithographic Ink Trend 2004-2011 In Pounds



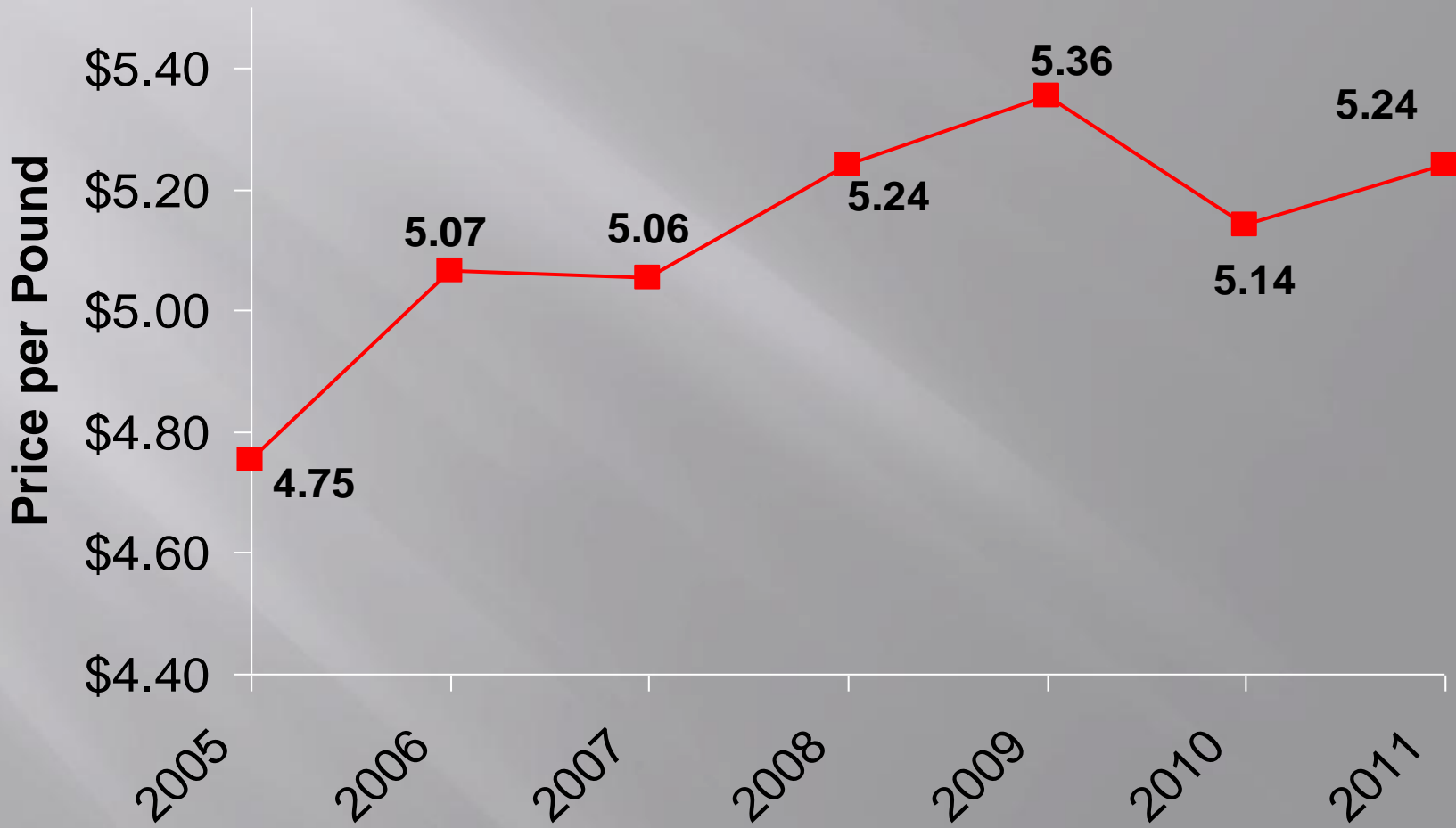
Source - NAPIM QSR

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# Total Litho Sheetfed Ink\*

Average Selling Price



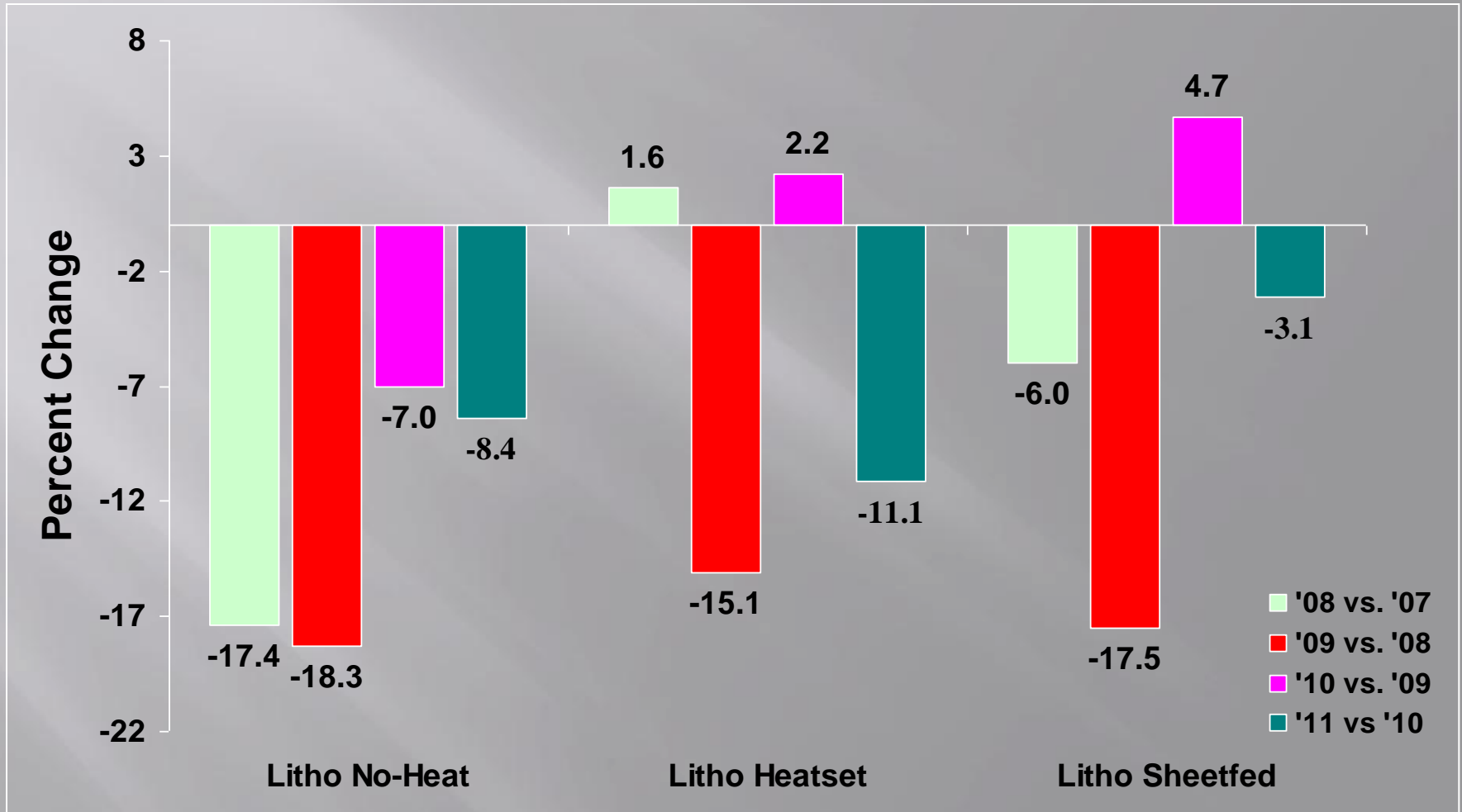
\*Based on NAPIM QSR Sample.

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# Litho Segments

## Printing Ink - Based on Lbs.

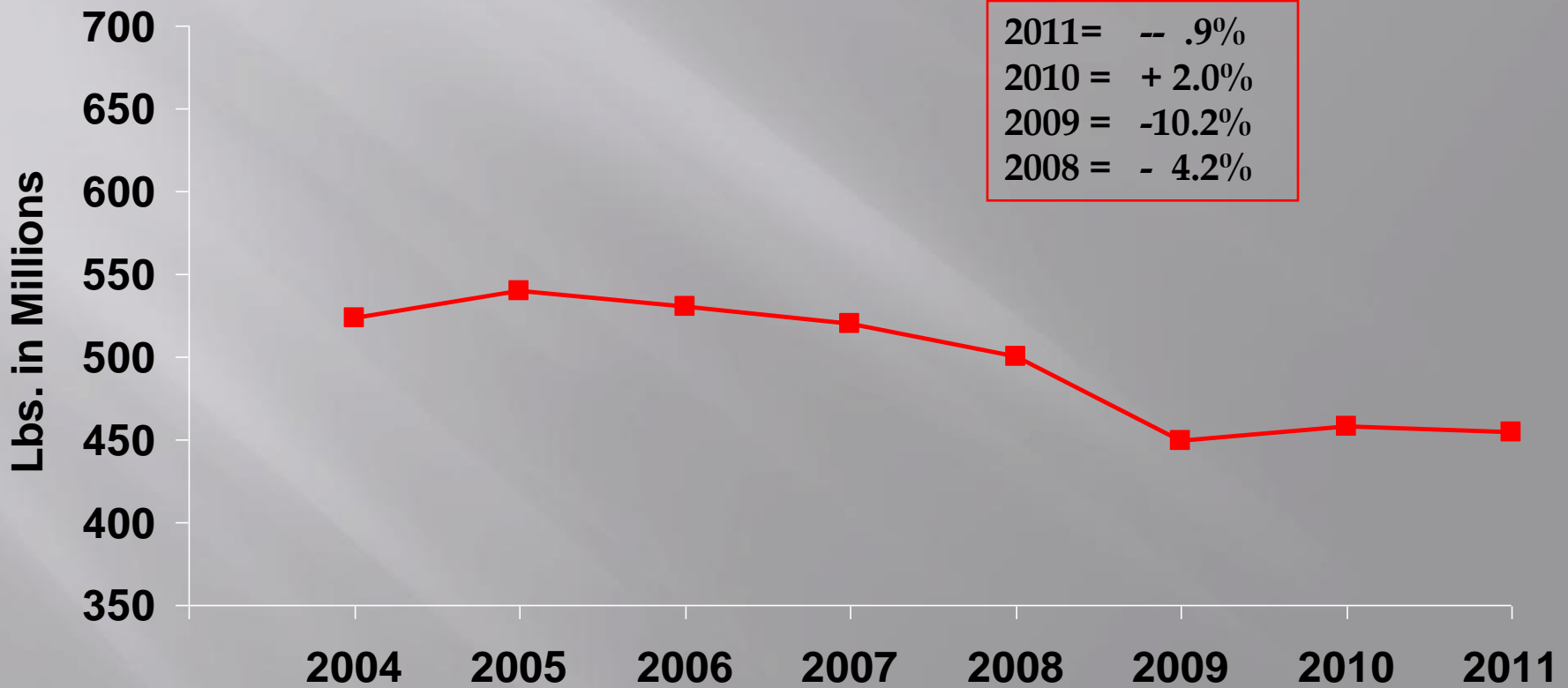


Source - NAPIM QSR

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# FLEXO INK In Pounds



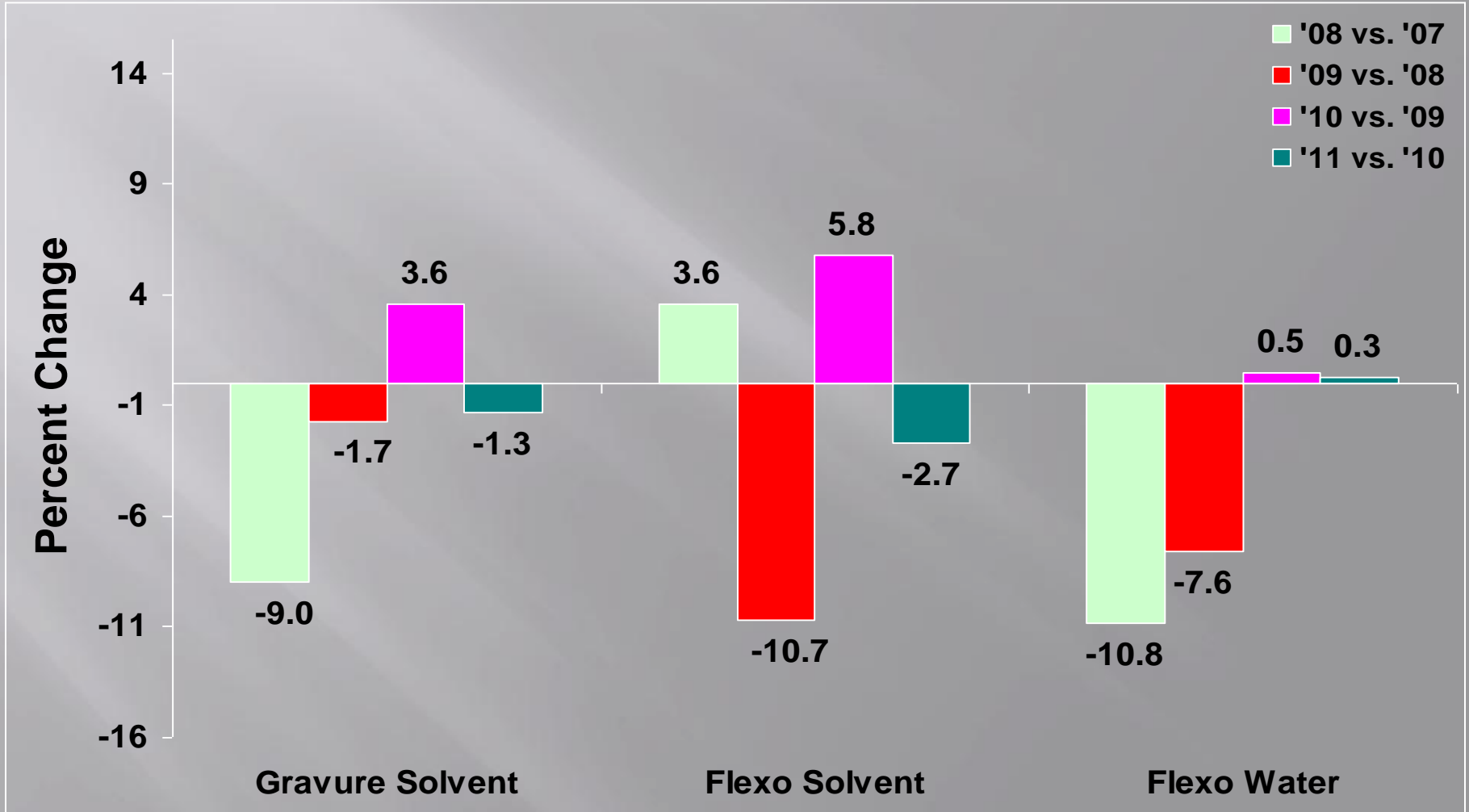
Source - NAPIM QSR

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# Packaging Printing Ink

Based on Lbs.

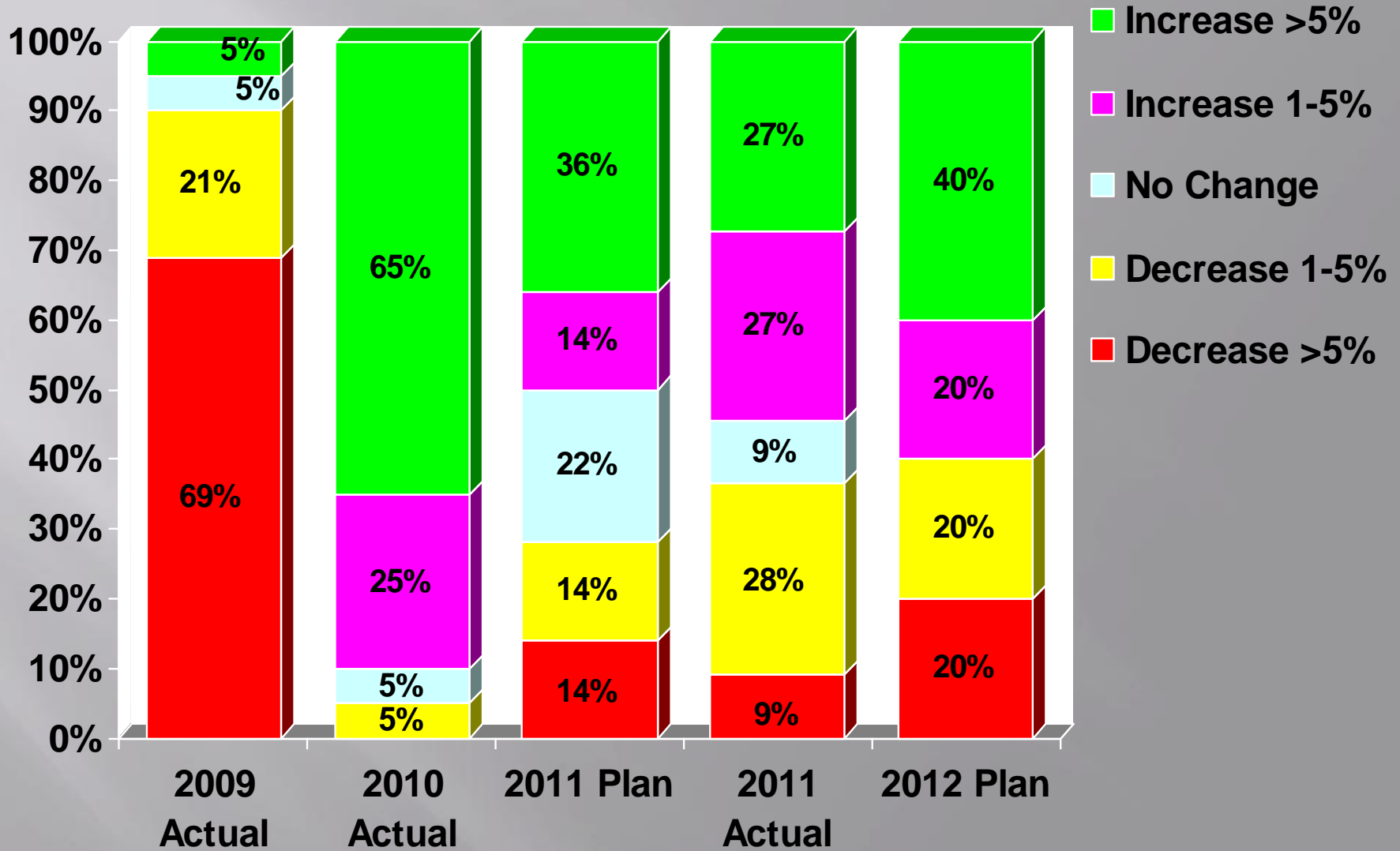


Source - NAPIM QSR

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# Ink Companies' Sales Change vs. Prior Year

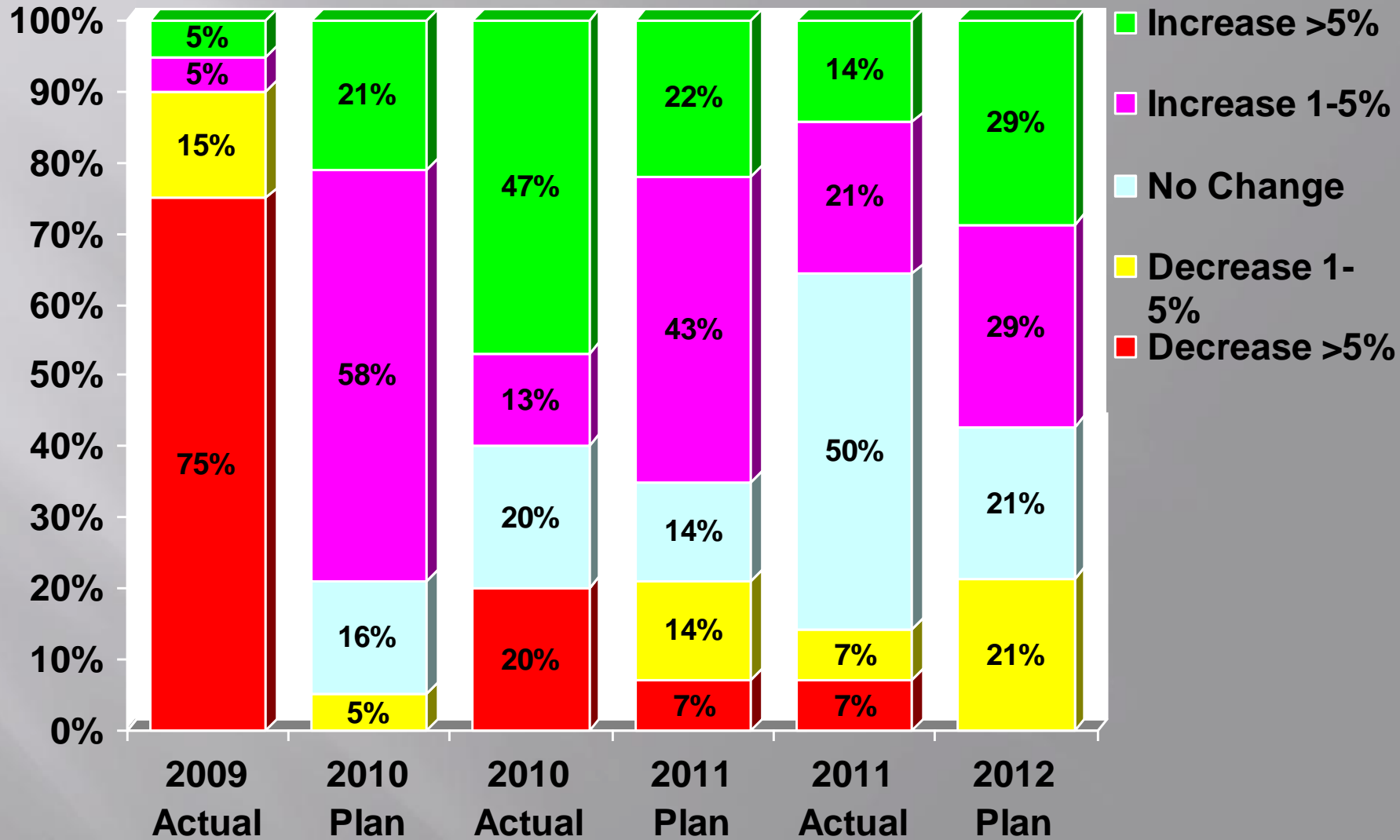


Source NAPIM Outlook Survey

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# Suppliers' Sales Change vs. Prior Year



Source NAPIM Outlook Survey

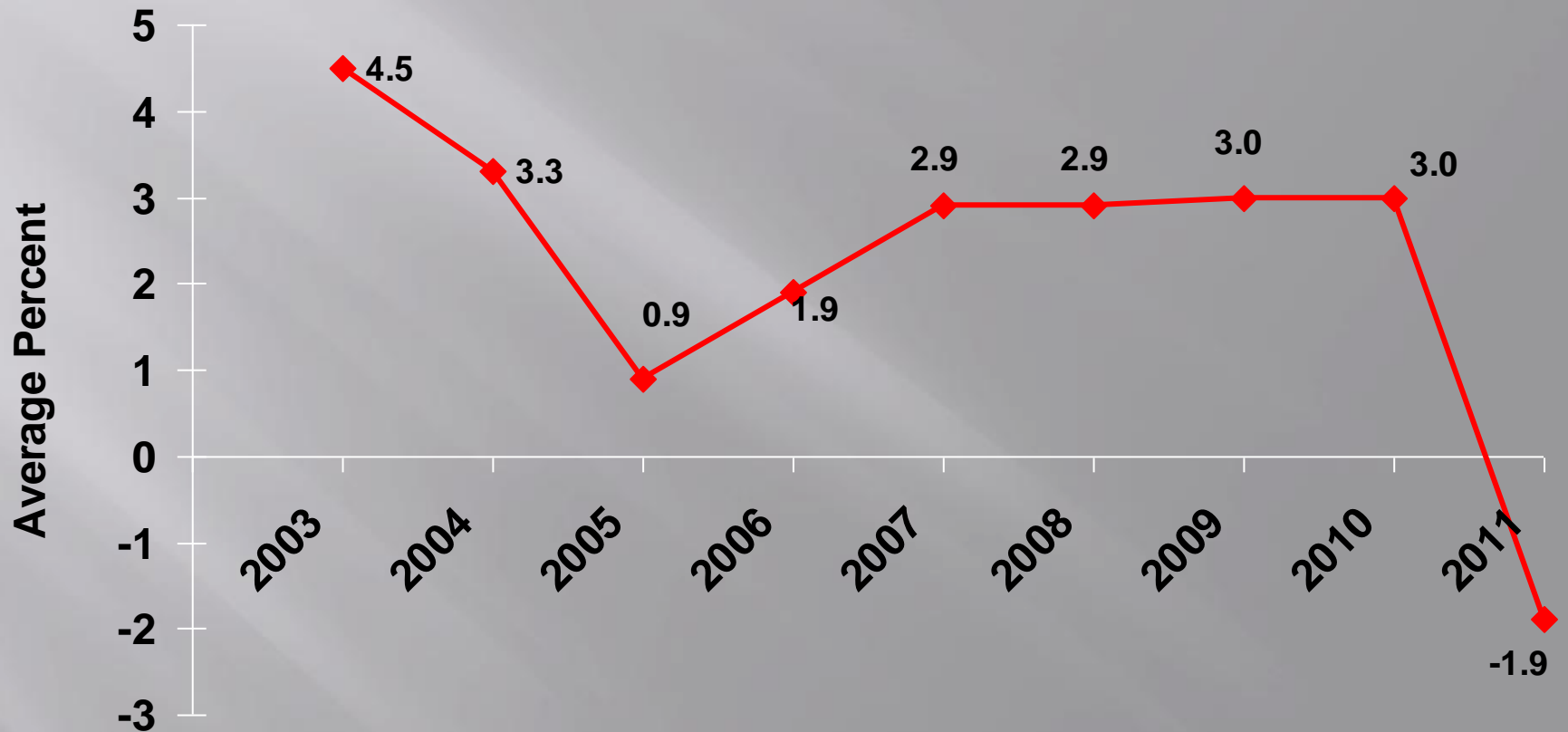
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# Profitability



# Ink Companies' Historical Earnings Before Interest & Taxes

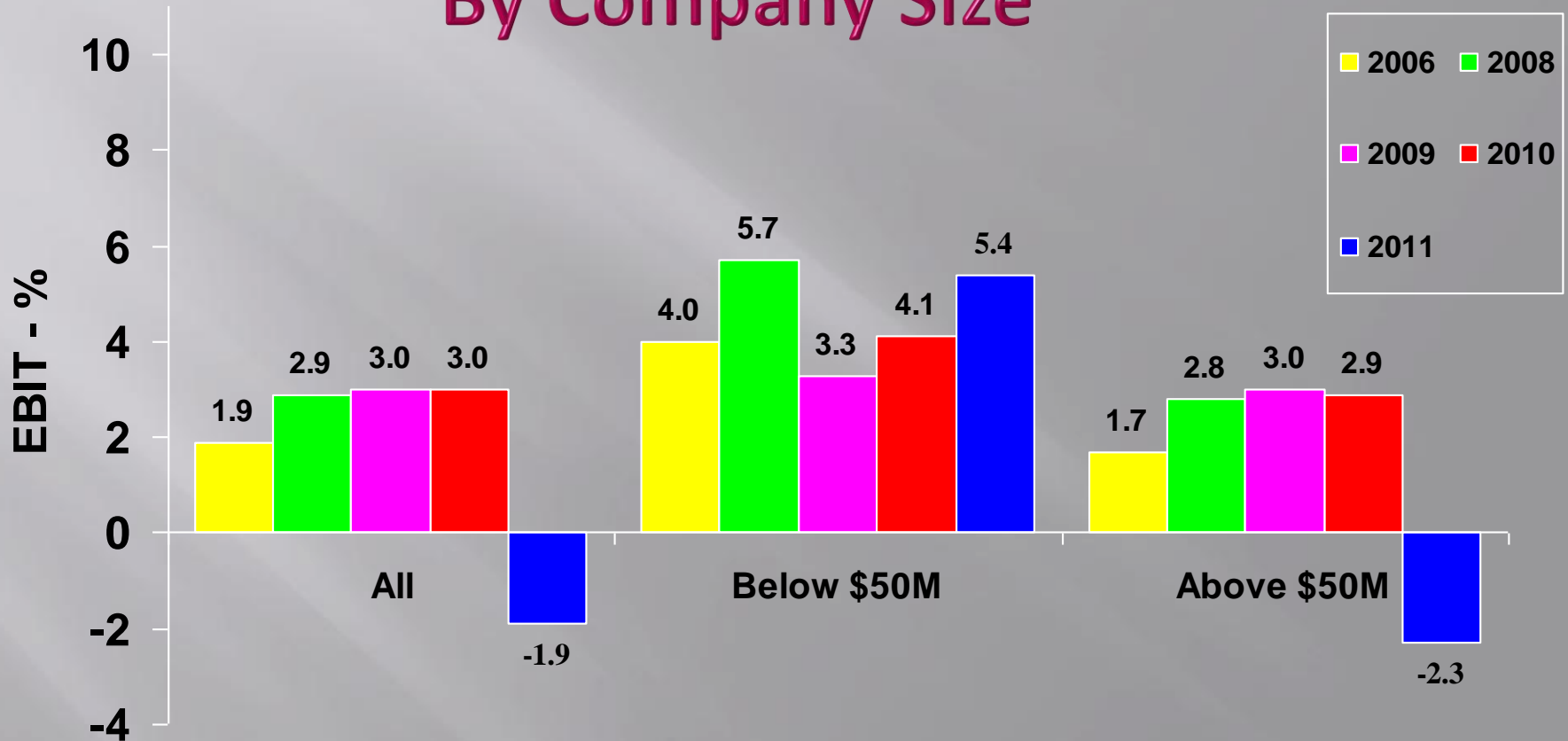


Source - NAPIM Operating Ratio Report

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# Ink Average EBIT By Company Size

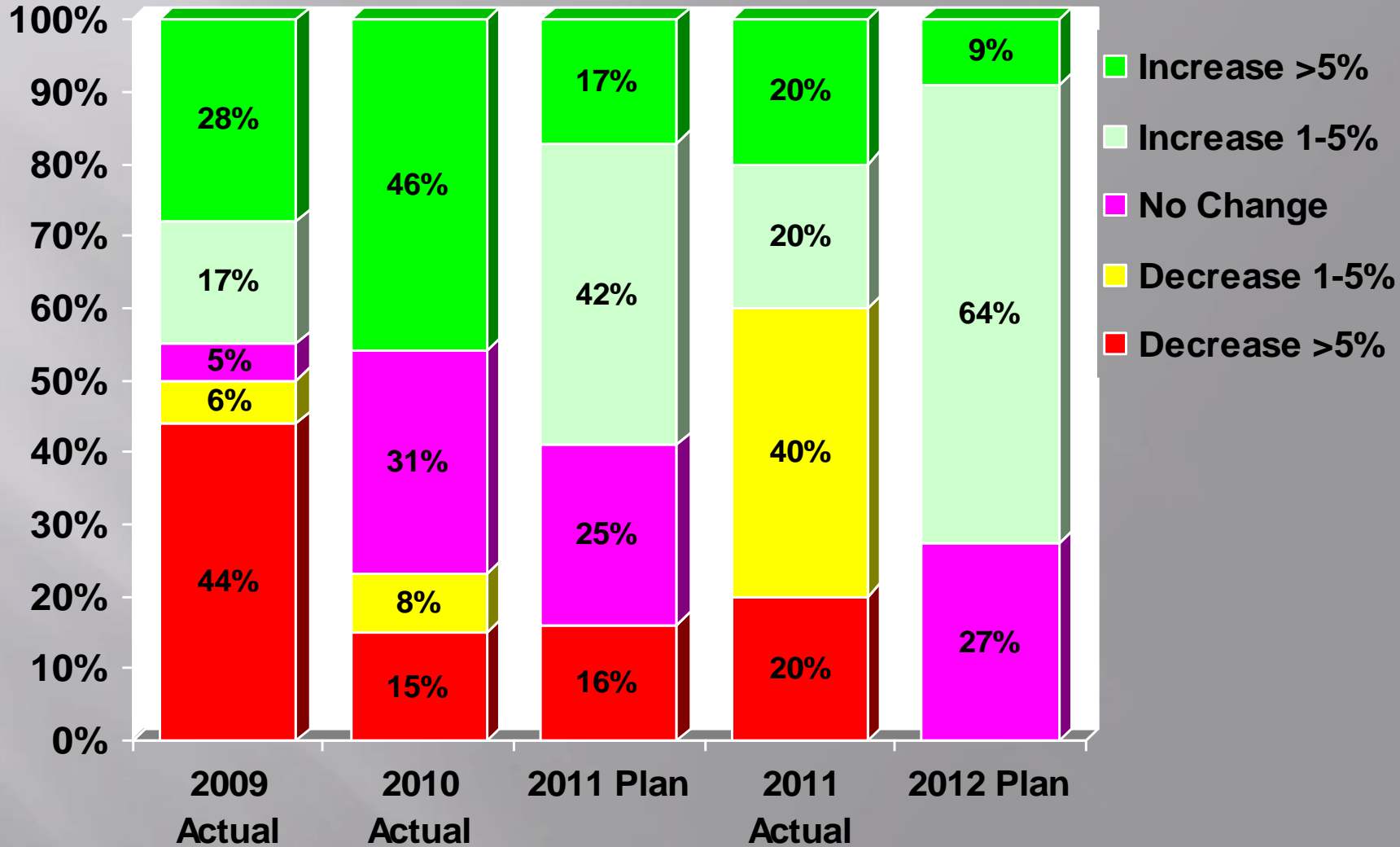


Source - NAPIM Operating Ratio Report

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# Ink Companies' Profit Change vs. Prior Year

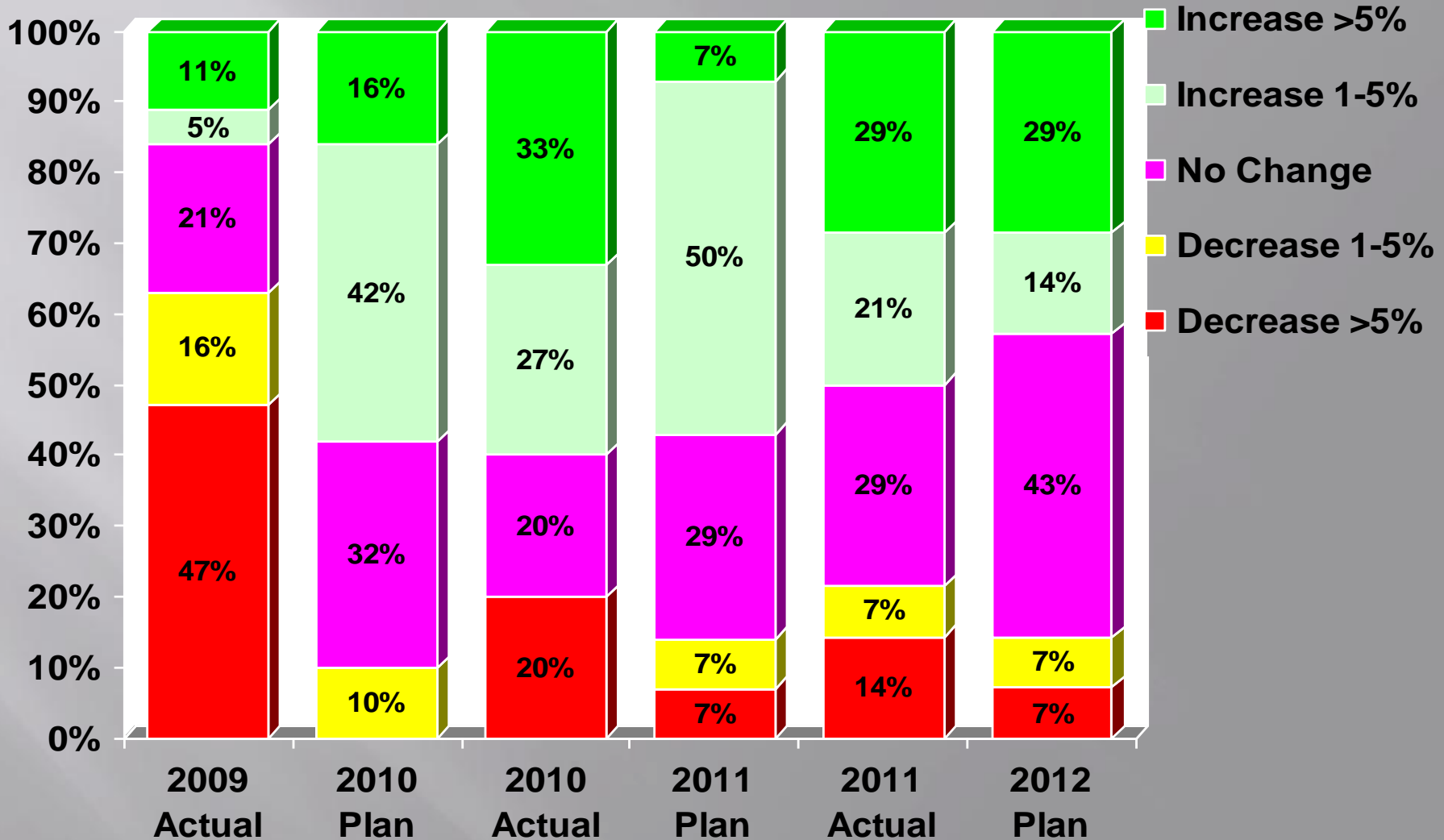


Source NAPIM Outlook Survey

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# Suppliers' Profit Change vs. Prior Year

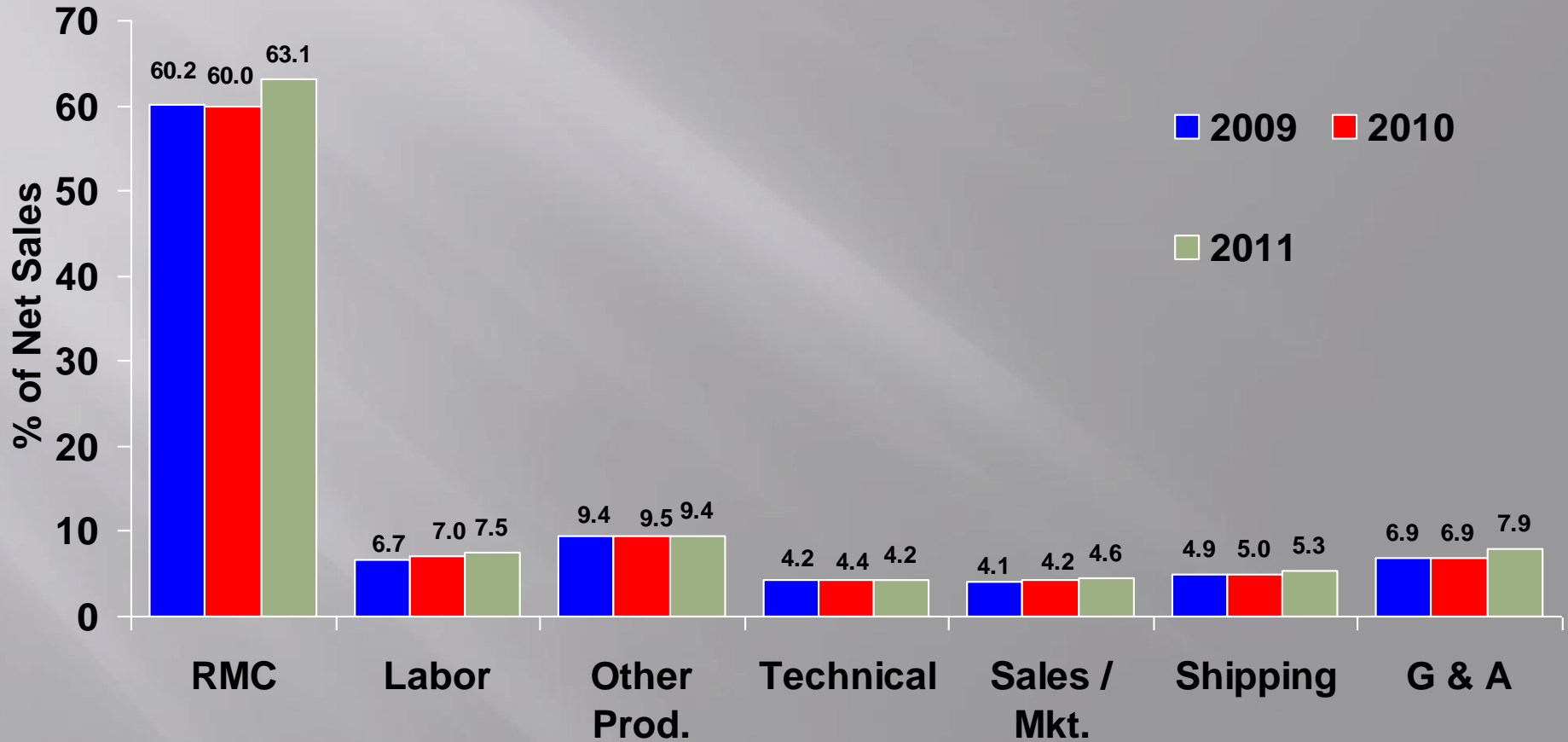


Source NAPIM Outlook Survey

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# Operating Expenses All Ink Companies

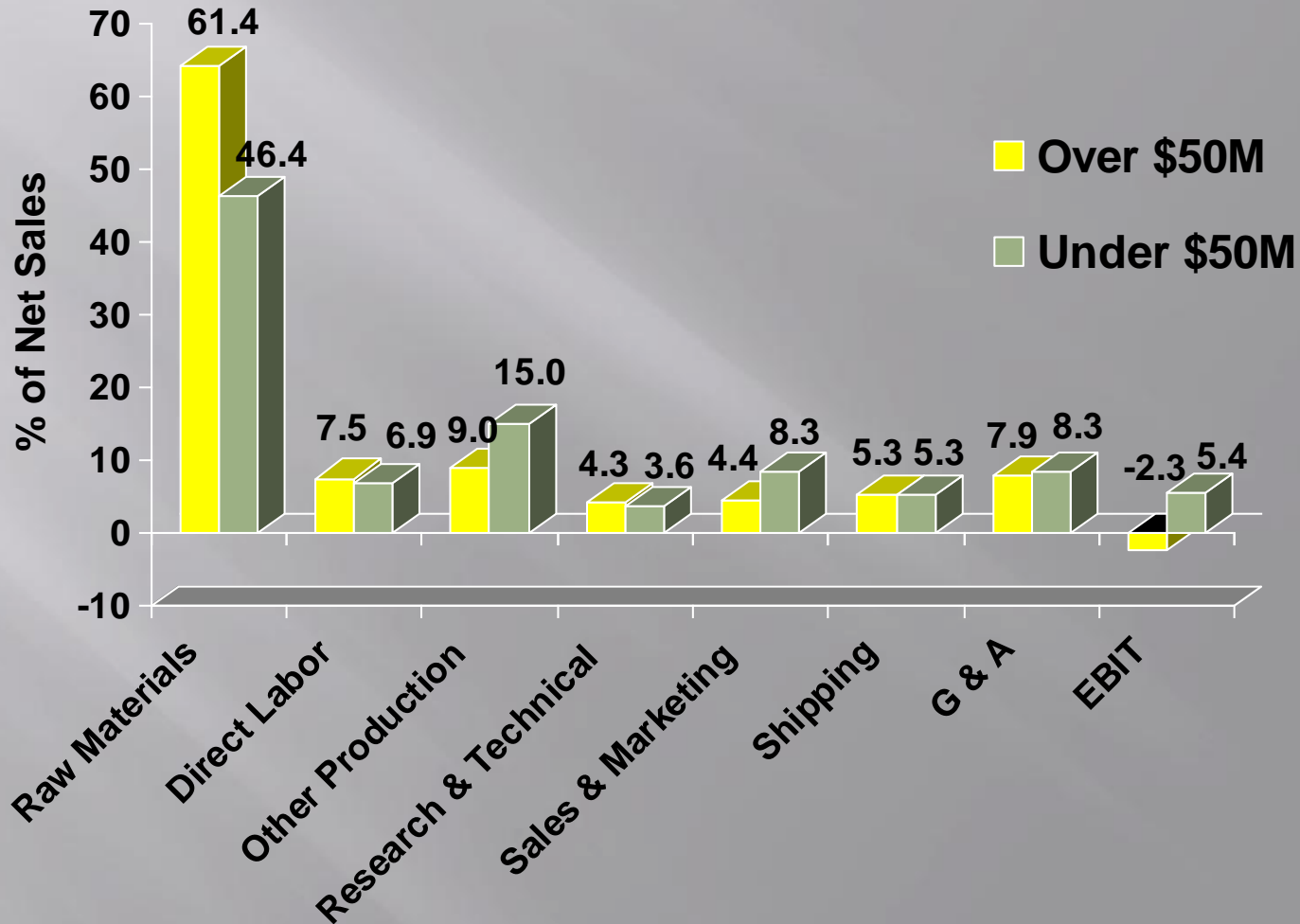


Source - NAPIM Operating Ratio Report

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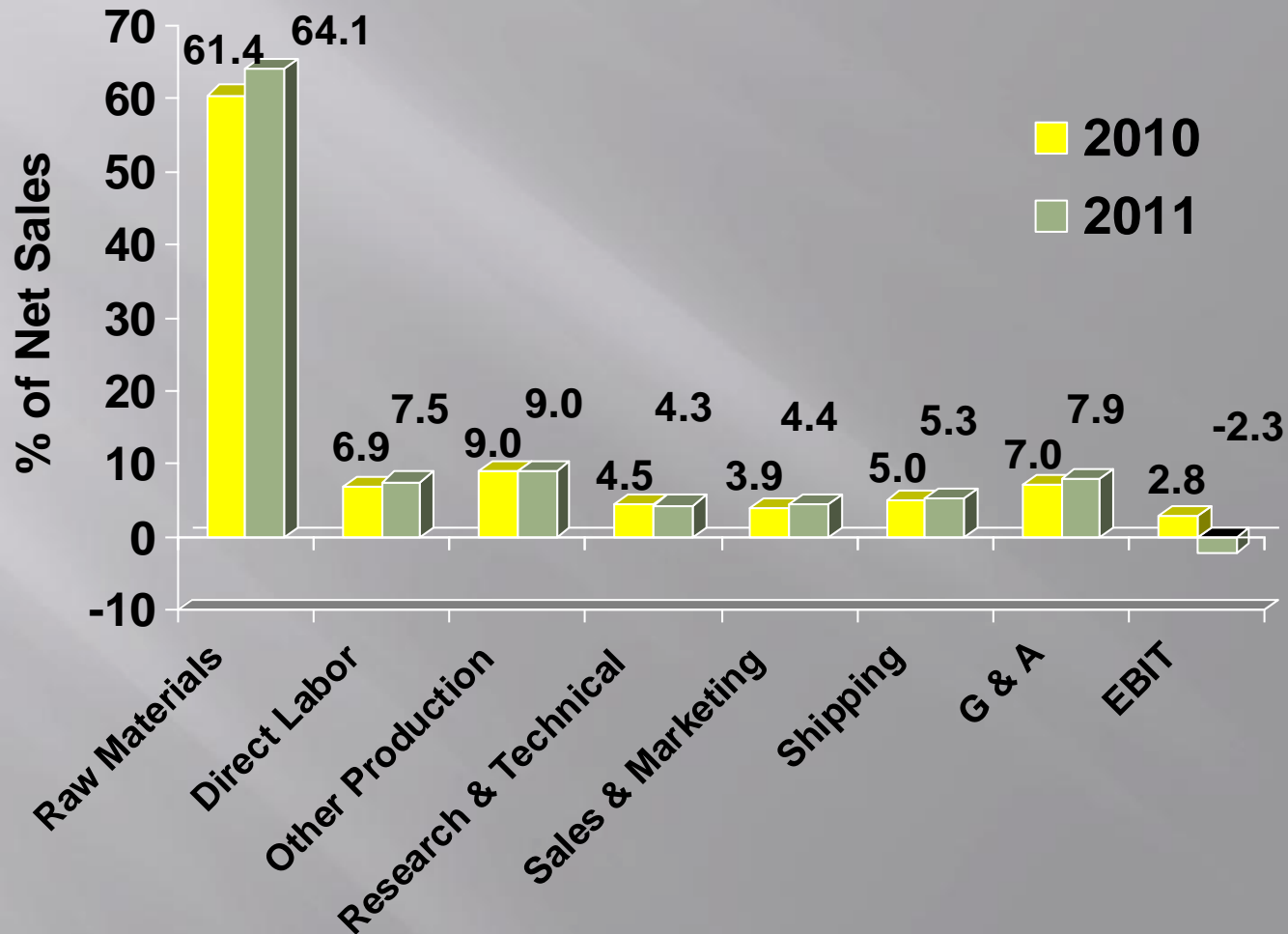


# Average Operating Costs 2011





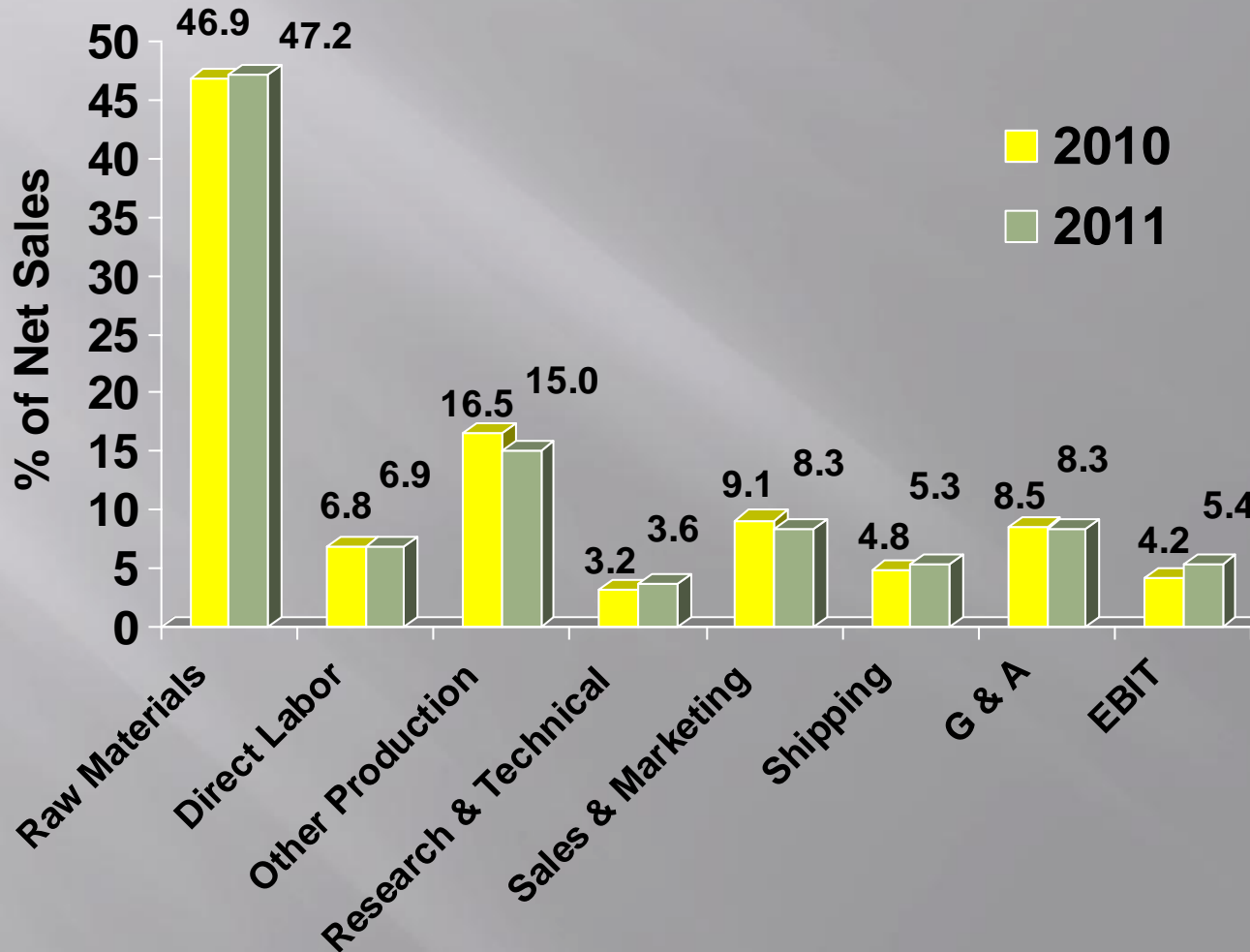
# Aver. Oper. Costs 2011 >50M



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# Aver. Oper. Costs 2011<50M





# Return on Net Assets Based on EBIT

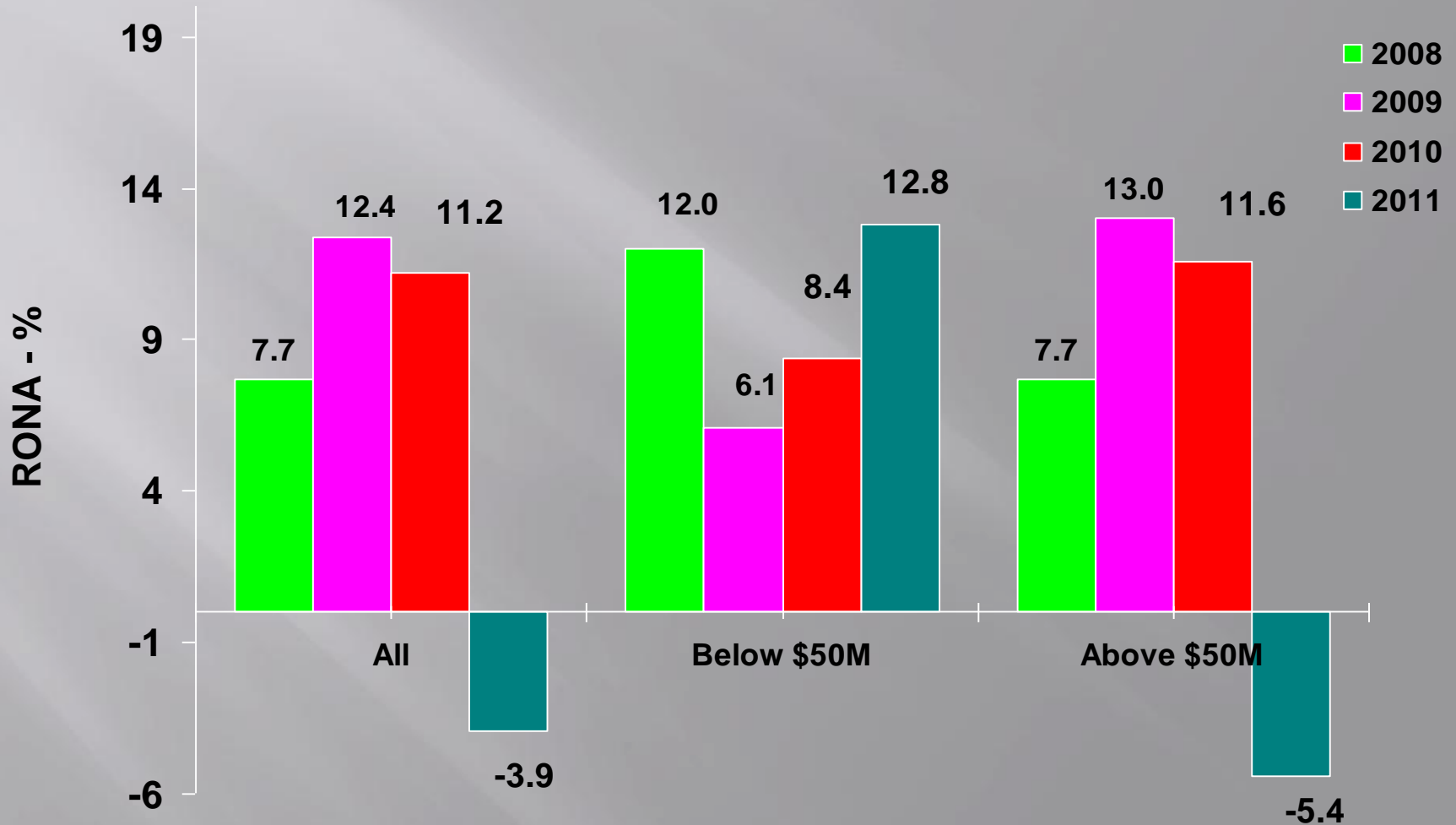


Source - NAPIM Operating Ratio Report

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# Return on Net Assets By Ink Company Size



Source - NAPIM Operating Ratio Report

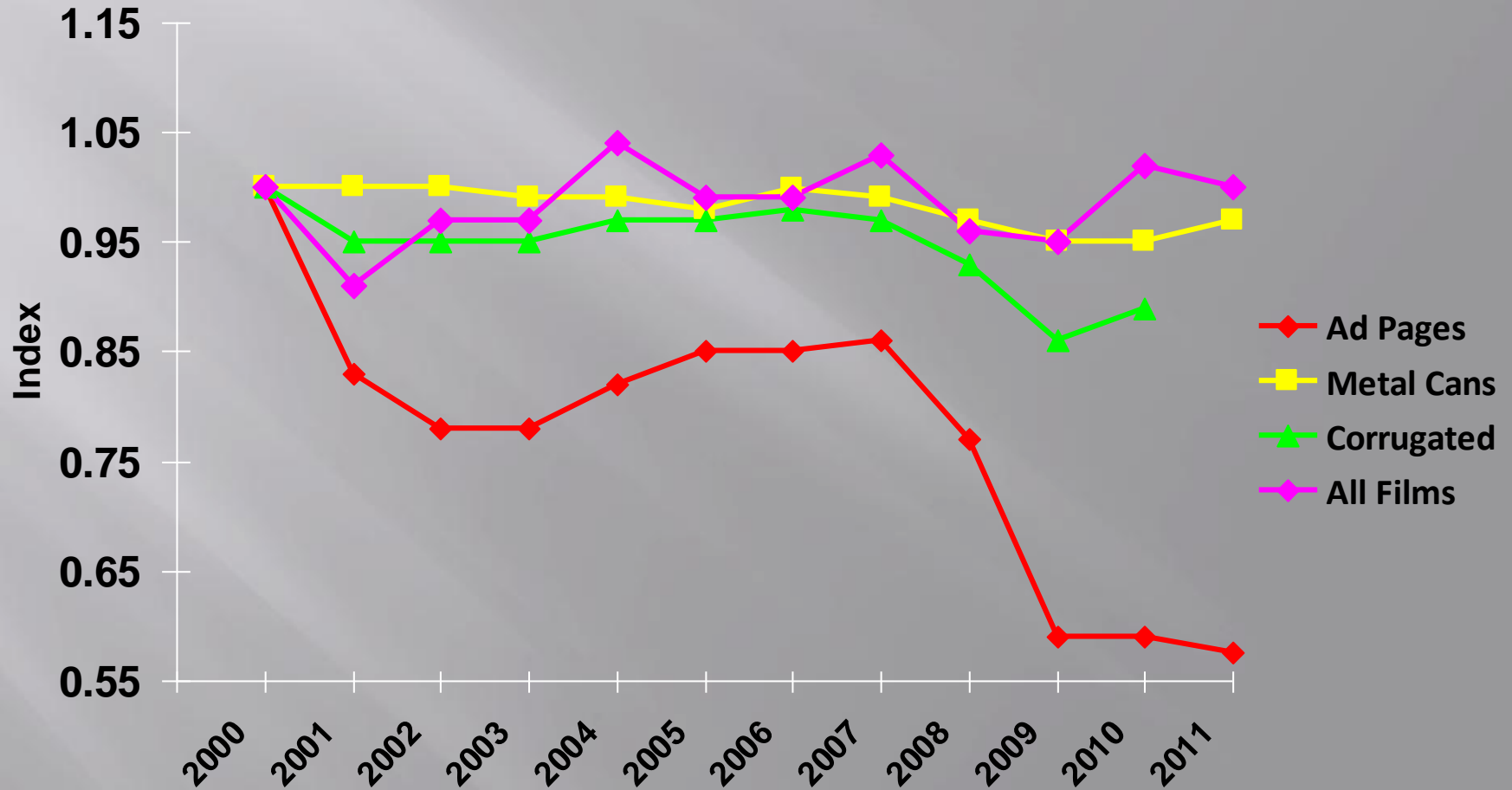
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# End Use Markets



# End Use Market Indicators



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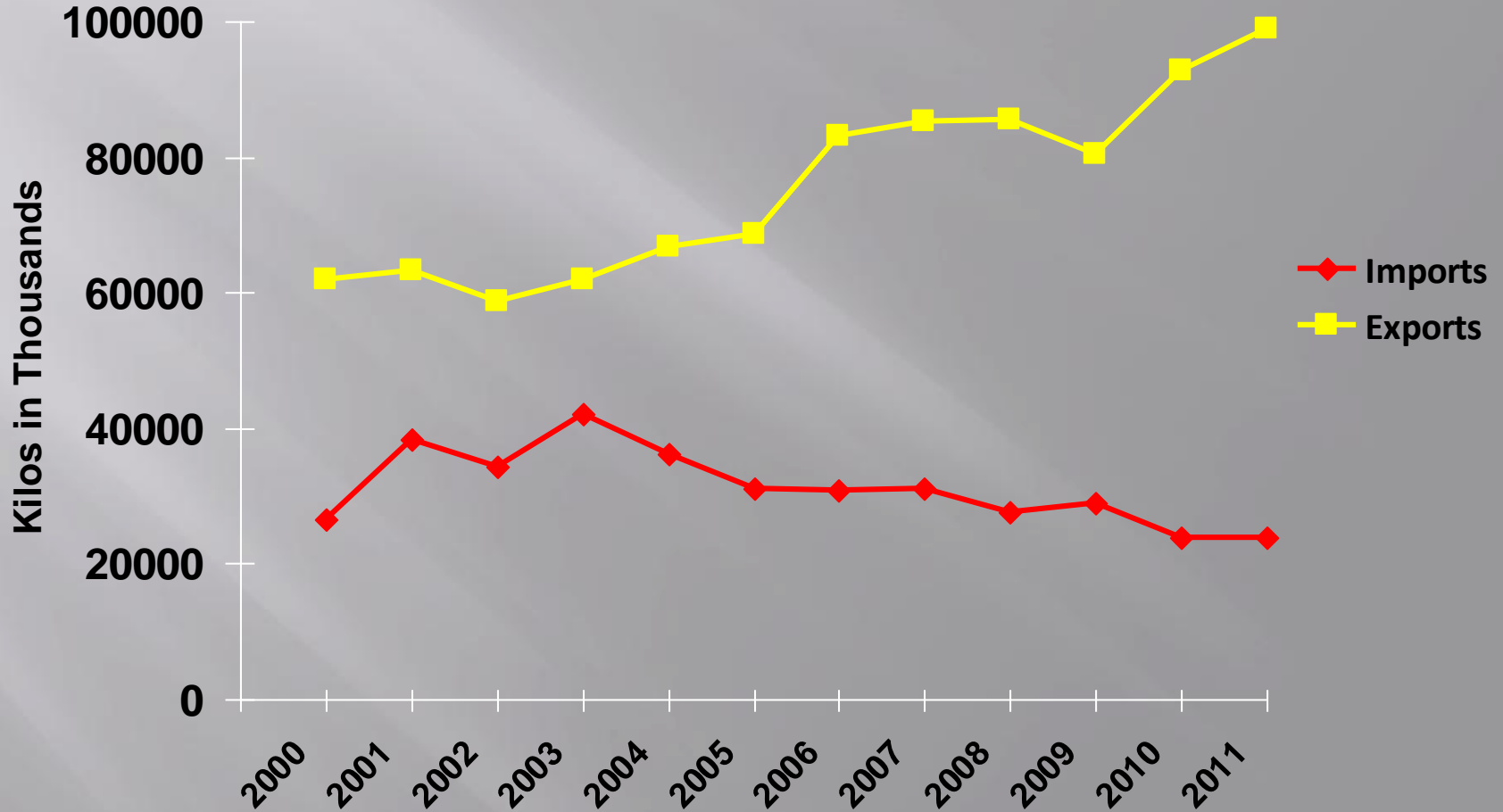
# Foreign Trade

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# Foreign Trade

## NAICS 32591

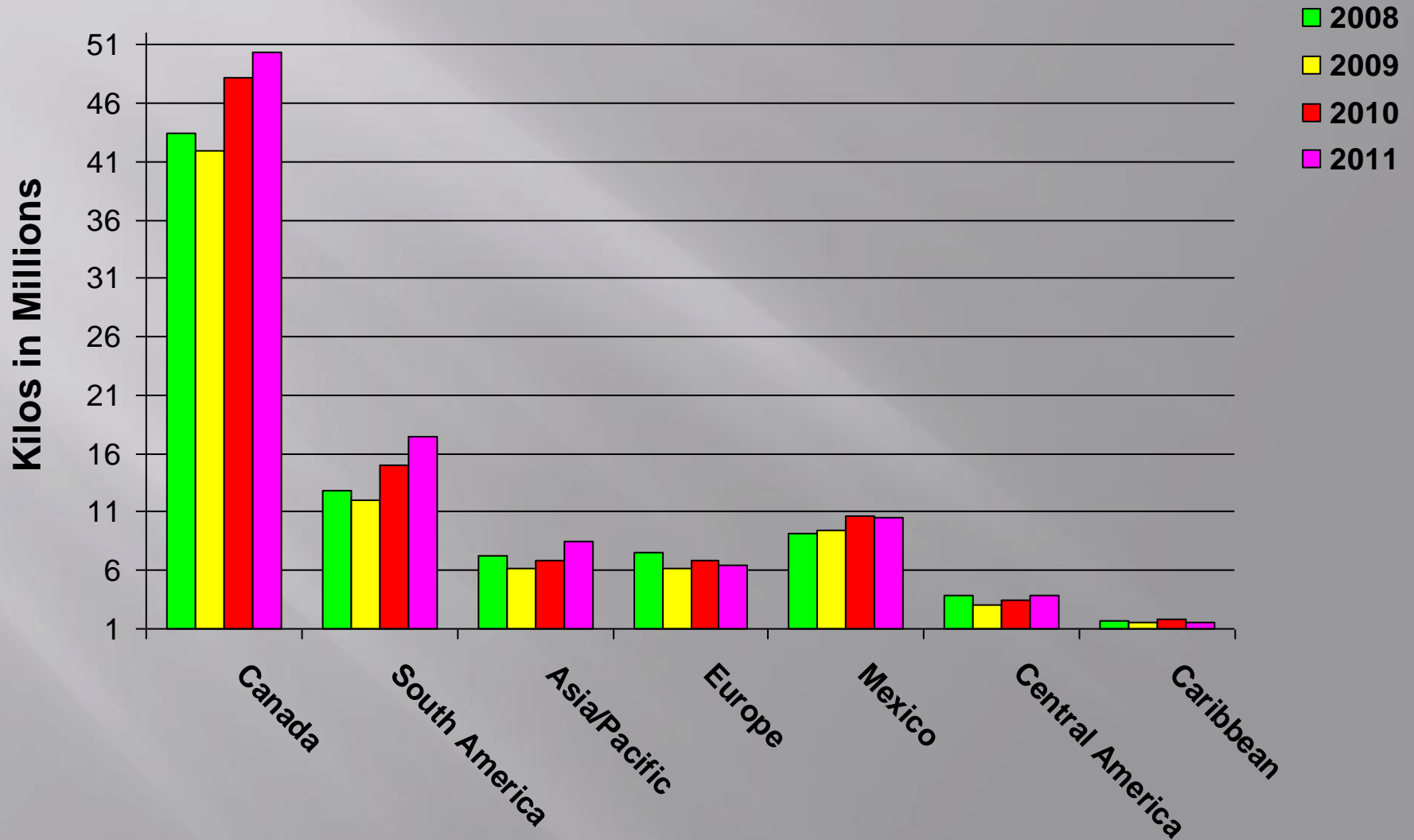


As presented at the 2012 Convention March 27, 2012



# Major Ink Exports

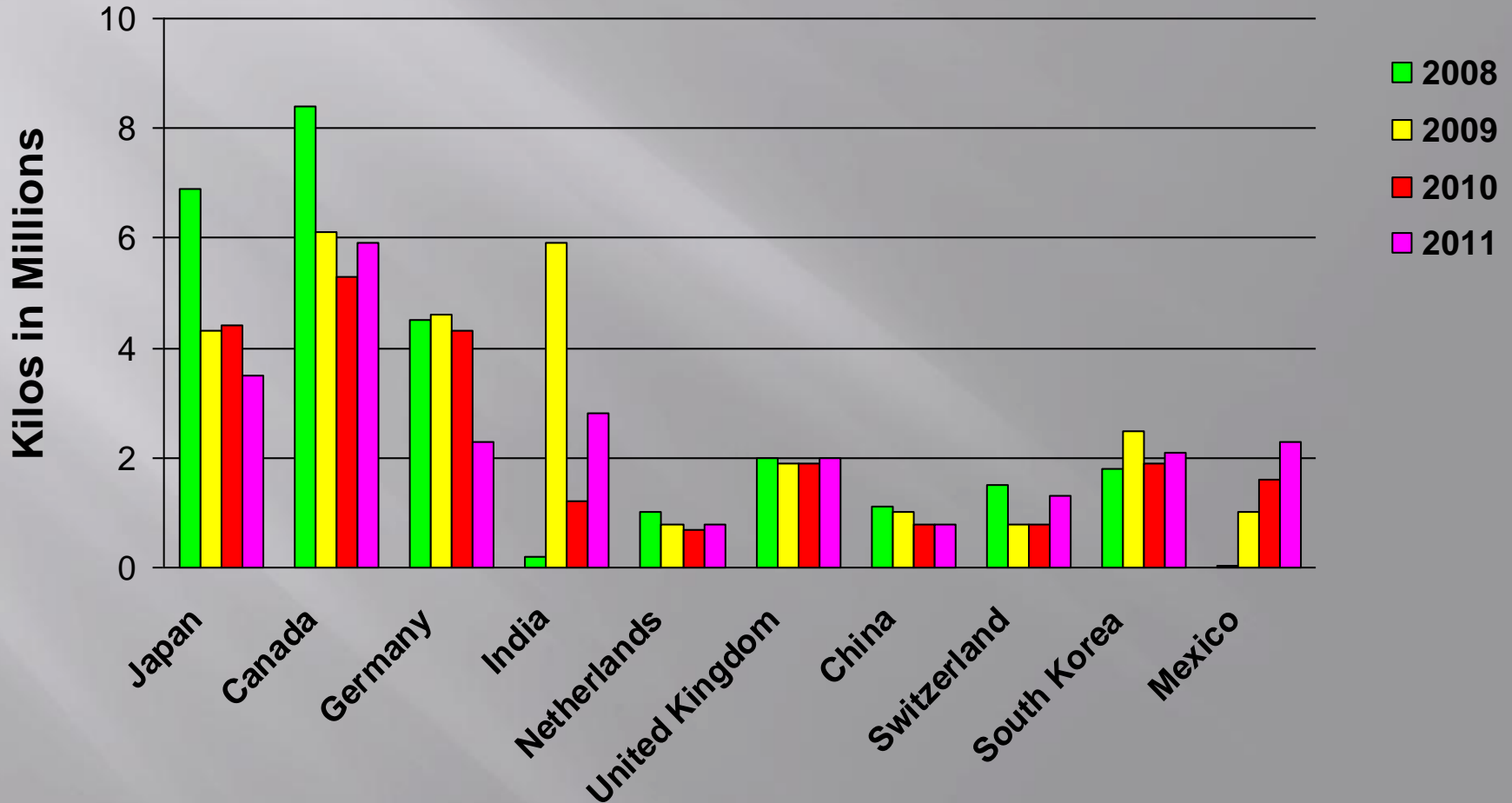
## NAICS 32591



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# Major Ink Imports NAICS 32591



As presented at the 2012 Convention March 27, 2012

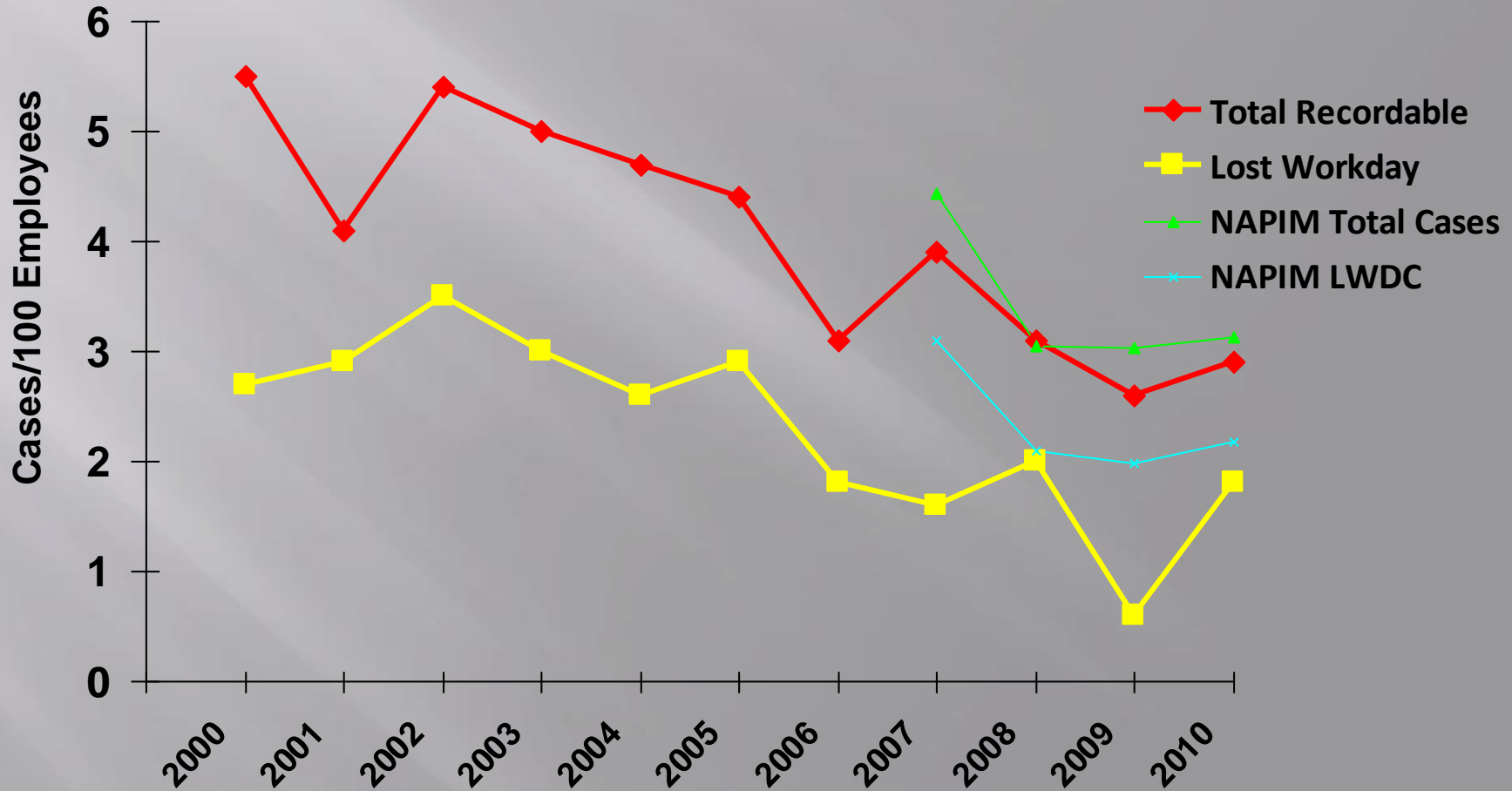


# Safety, Health and Environmental

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# Ink Industry Illness/Injury Annual Rate



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# EHS Issues

- OSHA
  - GHS - Status/Impact
  - Emphasis programs
  - PEL's
- CPSIA
  - Status
- Food Packaging Committee
  - Mineral Oil/Recycled Packaging
  - FDA Whitepaper
- Environmental Issues
  - TSCA Modernization



# Addendum

## -Raw Materials-

### Gum Rosin

#### ▣ Price Level

- After a period in January and February of price fluctuations in the \$150-\$200/ton range, due to low demand, domestic and export, the price has been reducing over the past weeks with the current level at approx \$1850 FOB Huangpu and fluctuating in a narrow range of \$30-50/ton.
  - No significant movements are expected either way in the foreseeable future
  - The off season in China is now compensated by good stocks available in Brazil. The Brazilians follow closely the Chinese market and keep rosin prices in line with the Chinese.
  - The continuing weakening of the US\$ vs RMB has had a small impact on price levels.

#### ▣ Current Demand

- The export demand remains weak due to the debt crisis in various countries and the general health of the EU economies.
- In EU the GR demand for the Adhesives remains at a reasonable level.
- In the US, TOR prices and TOR based adhesive resin prices have tracked gum rosin movements and have not allowed imported resins to disrupt the adhesives market.

#### ▣ Supply Situation - China

- Stock at Huangpu – remains in the 20000 MT range. The Chinese have changed their pattern of keeping all of their stocks in Huangpu as a means of keeping true availability hidden.
- The preparation for the new season will begin in mid to late April. Although rosin prices are down from the unprecedented highs of last year, the current prices are sufficient to see no decrease in harvesting efforts in 2012.



# Addendum

## -Raw Materials-

### Hydrocarbon Resins

- ▣ **Ethylene Crackers Continue Shift to Light Feed Slates**
    - Approximately 50% less hydrocarbon feedstock is obtained from light feed slates.
    - Shale Gas discoveries in North America support expansion of ethylene production. Europe will be the most affected resulting in imports of feedstocks and resins.
    - Other applications are investigating the use of low cost hydrocarbon feedstocks traditionally used for Graphic Arts resins.
    - Tightness of hydrocarbon resin supported the recent high demand for rosin based resins.
- (Rosin and Hydrocarbon Resins are somewhat linked due to interchangeability in several applications)



# Addendum

## -Raw Materials-

### Hydrocarbon Resins

#### ▣ Predictions

- Resin supply tightness for both hydrocarbon and rosin based resins will continue. (Rosin demand increasing for adhesive applications)
- New Asian C5 separation units should eventually ease tightness of hydrocarbon feedstocks.
- Low cost mixed feedstocks, traditionally used in Graphic Arts, will be used in adhesive applications.
- Current economic conditions support further consolidation of resin producers.
- While there are significant shifts within the petrochemical industry, hydrocarbon resins are predicted to remain a cost effective resin for lithography



# Addendum

## -Raw Materials-

### Solvents and Oils

#### Crude Oil Values - \$/BBL

	<u>9/2009</u>	<u>9/2010</u>	<u>9/2011</u>	<u>11v10</u>	<u>3/2012*</u>	<u>3/12* v 9/11</u>
WTI-US	69	75	86	+15%	106	+23%
Brent-Eur	67	77	113	+45%	125	+11%
Br vs WTI	-2	+2	+27		+19	

#### Distillates - \$/Gal

USG Diesel	1.77	2.13	2.94	+38%	3.24	+10%
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\* 3/2012 values based on first week March 2012 data



# Addendum

## -Raw Materials-

### Solvents and Oils

Looking ahead thru 2012, EIA predicts:

- WTI crude to average \$106/bbl during 2012, up \$11 from 2011, flat thru 2013
- Supply disruptions in the Middle East and Africa account for rising prices in early 2012
- Diesel values continue to rise compared to gasoline as world demand for diesel strengthens
- World oil consumption to grow 1.2% in 2012 and 1.5% in 2013 assuming global economies continue recovery and an easing of the EU debt crisis
- World oil markets will be impacted by
  1. Geopolitical tensions in Persian Gulf
  2. Further refining capacity rationalization
  3. Supply shortages or demand surges



# Addendum

## -Raw Materials-

### Acrylics

- Availability of acrylic acid and acrylates, in the absence of any unplanned production outages, remains generally balanced.
- Demand continues to grow for acrylic acid, particularly in super absorbent and water treatment applications; overall capacity utilization remains high.
- Paint & coatings, graphic arts, and adhesive applications are creating some seasonality in the supply-demand balance during spring/summer months given high utilization rates.
- Costs are increasing in early 2012 due to C3 feedstock cost increases, seasonal increases in demand, and high capacity utilization rates.
- Availability of methacrylates remains generally tight but has improved since 2011; costs are higher.
- Investment conditions remain favorable for acrylic monomers; producers continue to pursue debottlenecking projects in North America and new capacity in South America.



# Addendum

## -Raw Materials-

### UV Materials – Key Market Drivers

- Price increases for acrylic acid and acrylates (BA, 2-EHA, MA, etc.) has ranged from \$0.10/lb. up to \$0.20/lb. since beginning of the year in the Americas.
- Glacial Acrylic capacity expansions in Asia will come on-line in 2012, but have been postponed due to lack of demand in Asia. New GAA units will be started up to only meet 2012 demand as it develops. The new capacity expansions are targeted for Super Absorbent Polymer (SAP) demand.
- US Producers of Acrylic Acid and Acrylates are taking normal maintenance & shutdowns and currently GAA is tight.
- Epoxy Resins price increases of up \$0.20/lb. have been implemented by major US producers since January 2012.
- BPA supply is tight and epoxy producers are reluctant or have NOT reduced prices with respect to what they have announced.
- Asian epoxy resin producers increased prices in-line with US epoxy producers price increases.



# Addendum

## -Raw Materials-

### UV Materials – Key Market Drivers

- There will be continued shortages for select raw materials in 2012, such as IPDI. Price increases of 18% for IPDI and other isocyanates has been announced by an US supplier. Price increases are expected in Europe.
- Many other raw materials prices have been increased in February – April:
  - ❖ Price increases for Oxo-Alcohols ranging from \$0.05/lb. up to \$0.20/lb.
  - ❖ Polyols and other resins have increased in price by up to \$0.10/lb.
  - ❖ Price increases on TPG, and TMP + \$0.10/lb.
- In general availability of raw materials on a global basis is not a problem since demand in Asia and Europe continues to remain depressed.



# Industry Snapshot

	New	Period	Unit	Last	Prior	Yr. Ago	Change	Next release
<b>Printing Industry</b>								
<b>Shipments</b>								
Shipments (NAICS 323)		Jan. 12	\$ millions	\$6,401.0	\$6,913.0	\$6,561.0	-2.4%	Apr. 3
Shipments (NAICS 323) infl-adj \$		Jan. 12	\$ millions	\$6,401.0	\$6,966.0	\$6,753.0	-5.2%	Apr. 3
12 month moving total		Jan. 12	\$ millions	\$83,442.0	\$83,602.0	\$84,288.0	-1.0%	Apr. 3
12 month moving total infl-adj \$		Jan. 12	\$ millions	\$83,902.0	\$84,254.0	\$87,498.0	-4.1%	Apr. 3
<b>Capacity utilization</b>								
Capacity utilization		Jan. 12	%	64	63.1	63.4	0.9%	Mar. 16
Industry capacity		Jan. 12	index	115.3	115.6	116.7	-1.2%	Mar. 16
<b>4Q Total annualized profits</b>								
4Q Total annualized profits		Q3 2011	\$ billions	\$3.96	\$3.63	\$2.04	na	Mar. 26
<b>Printing &amp; related PPI</b>								
Printing & related PPI		Jan. 12	index	112.5	112.4	110.7	1.6%	Mar. 15
<b>Printing &amp; related employment</b>								
Total workers	x	Feb. 12	thousands	457.8	460.3	475.9	-3.8%	Apr. 6
Production workers	x	Feb. 12	thousands	316.0	317.3	332.1	-4.8%	Apr. 6
Nonproduction workers	x	Feb. 12	thousands	141.8	143.0	143.8	-1.4%	Apr. 6
<b>Trade Statistics by Country (Printed Matter and Related Products)</b>								
U.S. Imports - World		Dec. 11	\$ millions	\$5,509.6	\$5,072.5	\$5,602.2	-1.7%	Mar. 9
U.S. Exports - World		Dec. 11	\$ millions	\$6,480.1	\$5,940.3	\$6,424.5	0.9%	Mar. 9
U.S. Imports - China		Dec. 11	\$ millions	\$2,407.6	\$2,221.1	\$2,430.7	-0.9%	Mar. 9
U.S. Exports - China		Dec. 11	\$ millions	\$168.0	\$151.7	\$163.4	2.8%	Mar. 9
U.S. Imports - Mexico		Dec. 11	\$ millions	\$471.4	\$426.7	\$406.3	16.0%	Mar. 9
U.S. Exports - Mexico		Dec. 11	\$ millions	\$547.7	\$503.3	\$555.9	-1.5%	Mar. 9
U.S. Imports - Canada		Dec. 11	\$ millions	\$874.8	\$804.5	\$930.4	-6.0%	Mar. 9
U.S. Exports - Canada		Dec. 11	\$ millions	\$3,045.6	\$2,806.4	\$3,088.2	-1.4%	Mar. 9
<b>Trade in goods and services- foreign trade, books, printed material</b>								
U.S. Exports		Dec. 11	\$ millions	\$442.0	\$446.0	\$478.0	-7.5%	Mar. 9
U.S. Imports		Dec. 11	\$ millions	\$316.0	\$314.0	\$301.0	5.0%	Mar. 9

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