



***Expanding the Corrugated
Flexo Pond – It's Time to
Convert Litho Business***

FPPA 2013

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Agenda

- Why Expand the Pond?
- Market Opportunity / Trends
- Voice of the Customer
- Advantages of Each Print Process
- Your Sales Opportunities
- Summary

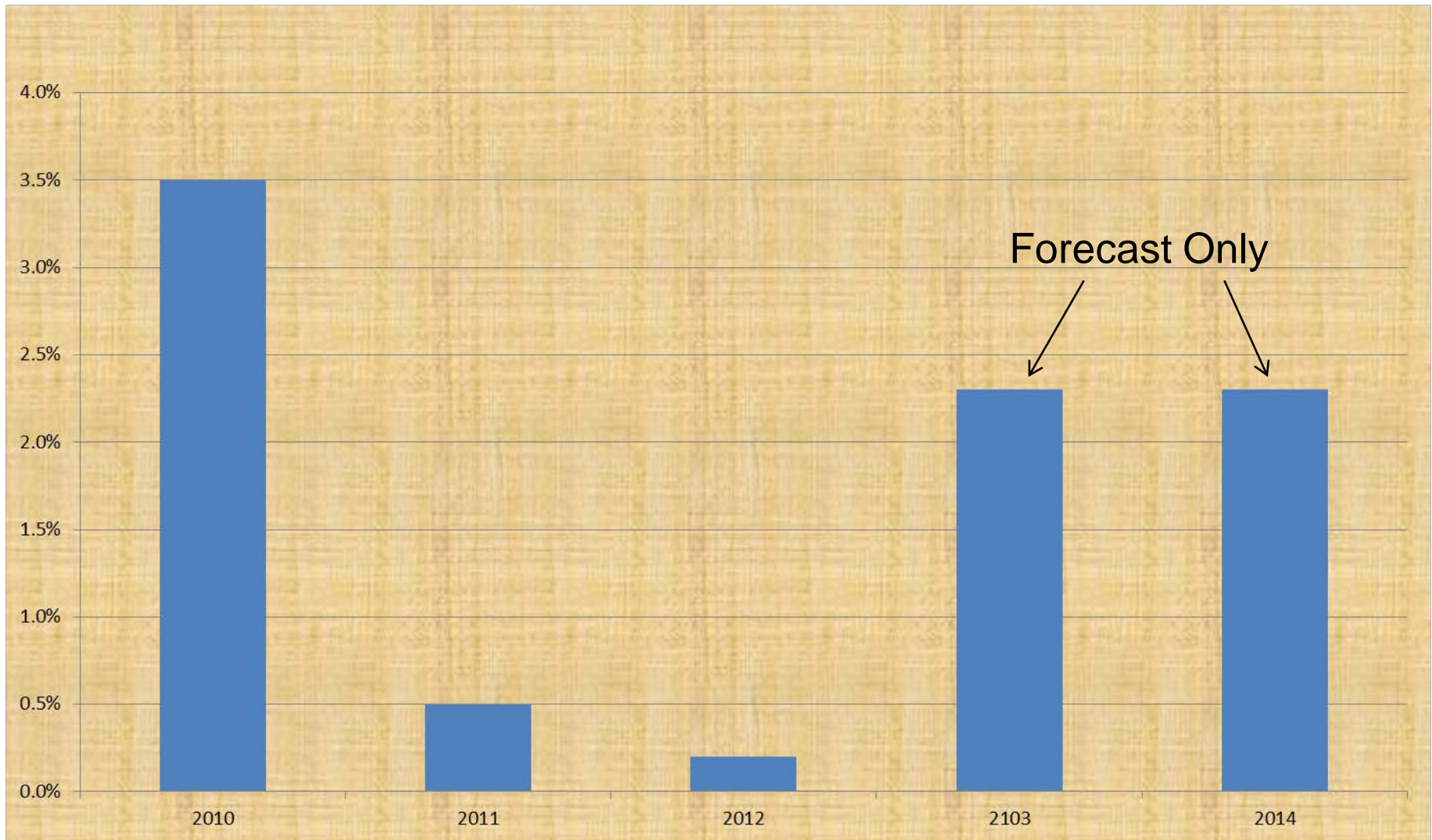
Why Expand the Pond?

3 Reasons

#3 - *Box Demand is Stagnant*

- North American growth in box demand has been flat
 - 1.2% average growth over the past 3 years
 - Only 2.3% growth per year forecasted through 2016

Box Shipment Growth



Sources – Fibre Box Association; Freedonia Group



Do You Ever Feel This Way?

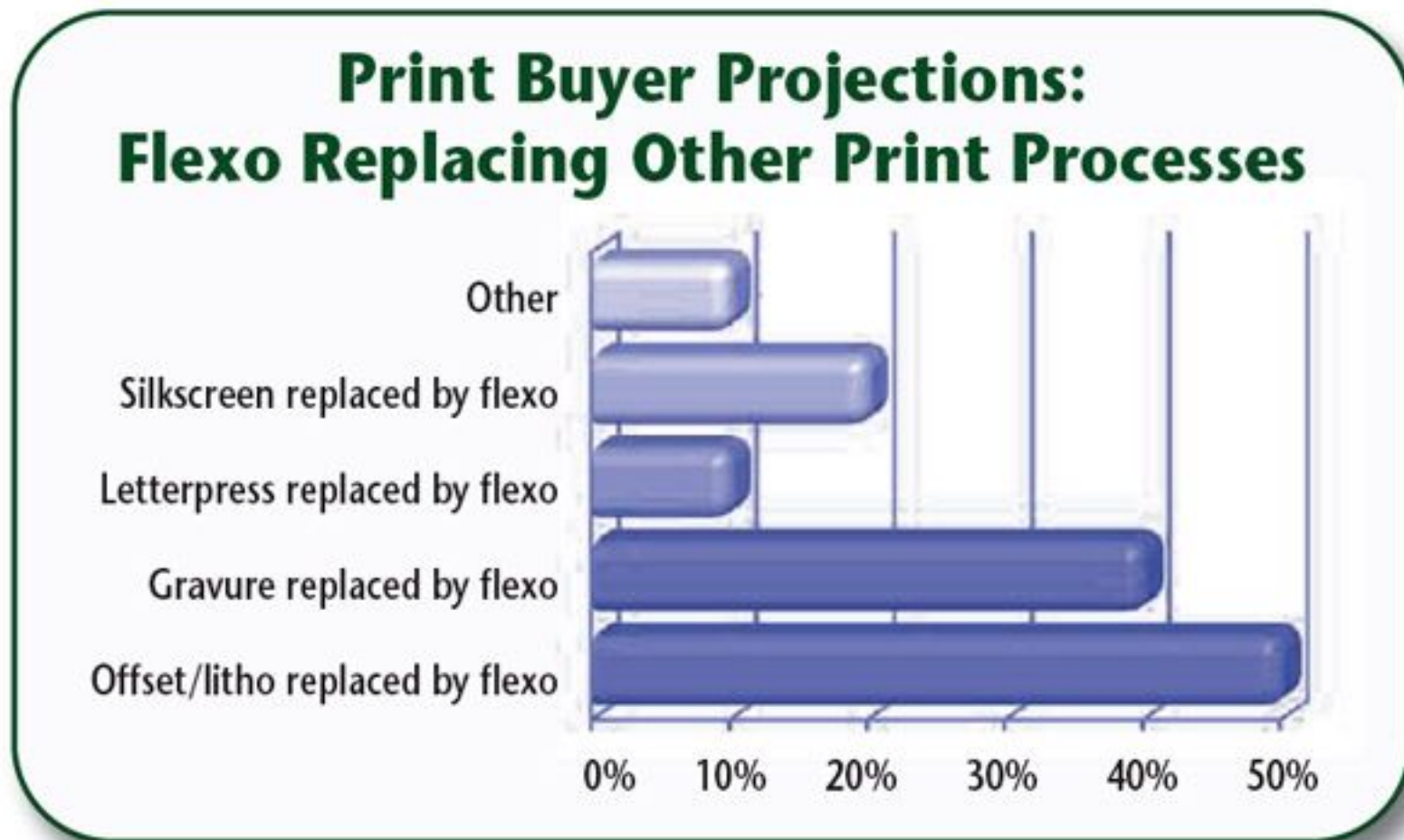


#2 - *To Stay Healthy and Be Relevant*

- We must find new revenue opportunities
- We must promote high-end flexo to the CPG's

Trends Favoring Flexo

Figure 1



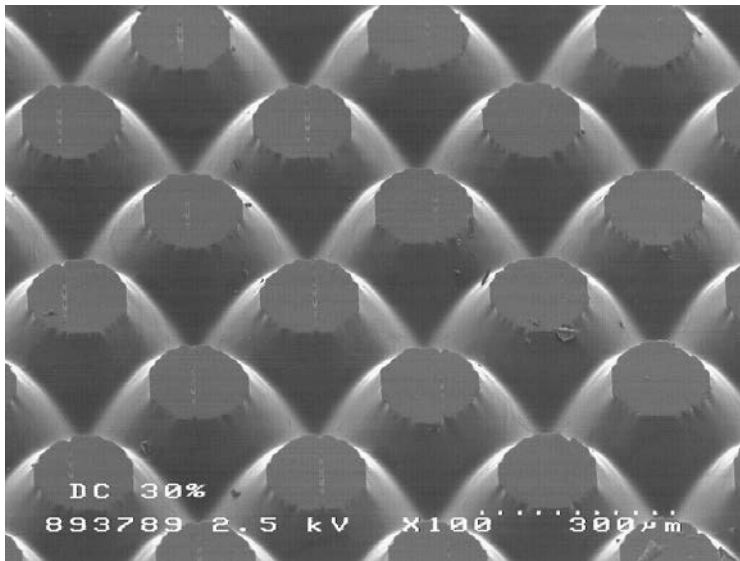
Source: PRIMIR "Benchmarking and Worldwide Market Trends for Flexographic Printing" by LPC, Inc. 2010

We Can't End Up Like This Guy!



#1 - BECAUSE WE CAN!!!

- Flexo plate and press technology are vastly improved



DigiCorr



High-End Presses

EMEA Flexo Photo Gallery



55 LS - E



47 LS - B



63 LS - B



63 LS - E

Source: Bobst

EMEA Flexo Photo Gallery



126 LS - EB



103 LS - BC



110 LS - BE

Source: Bobst



126 LS - FE

2012 SuperCorr Print Awards

- All 21 North American printing awards were printed with DuPont Cyrel® digital plates
- Of these winners, **15** were printed with DigiCorr “flat-top dot” technology
 - 8 different tradeshops won awards
 - 6 utilized DigiCorr technology

Award Winner



Award Winner



Award Winner



Market Opportunity

Market Size

- Demand for corrugated and paperboard boxes in the U.S. is projected to increase 2.3 percent annually to \$36.5 billion in 2016
- 90% of all products shipped in the NA are placed in corrugated boxes

End Use

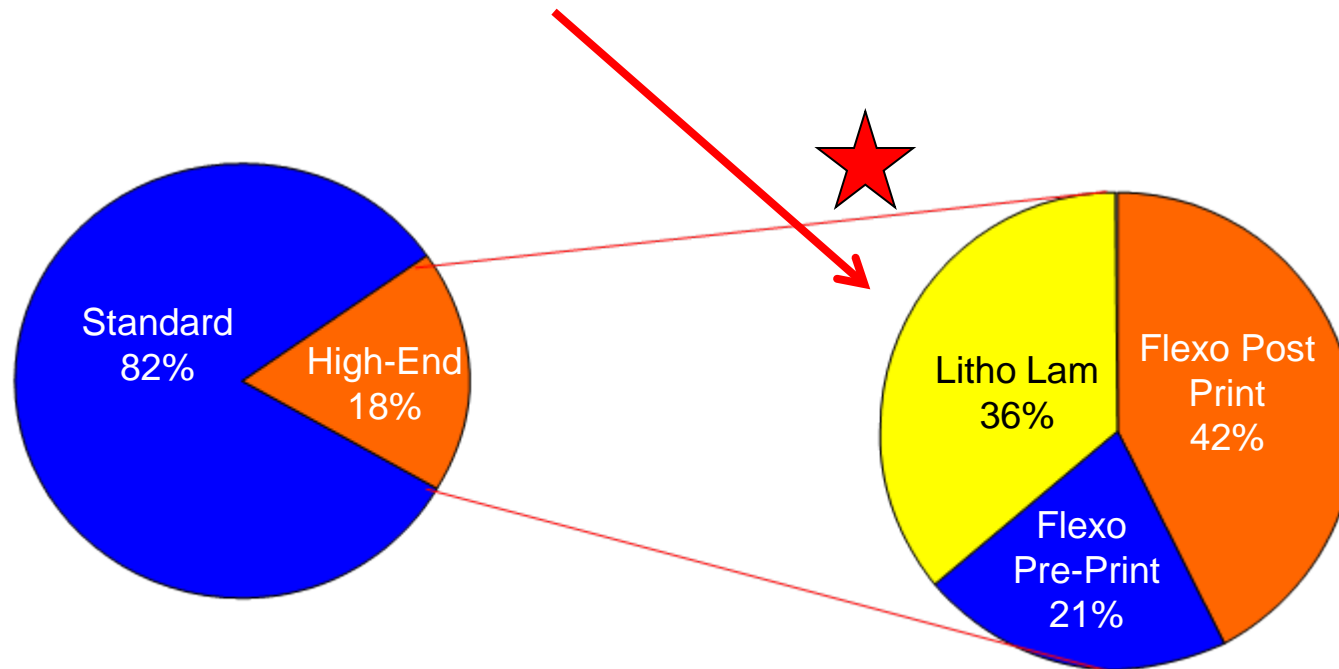


- Processed food currently forms the single largest segment for end-use corrugated board packaging, encompassing 25% of all consumption, while fresh food and produce represents 9% and beverages 7%.



- The beverage and frozen food segments are expected to post the fastest gains

Opportunity



Source: Bobst

Market Trends

Key Drivers and Trends

Smaller packaging requirements

- Average household size declining
- Single parents
- Less family meals

“Time Poor” consumers

- Less standard, longer working hours
- Longer commutes
- Valuable leftover time not wasted on food prep

Rising health awareness consumers

- Increased demand for packaged fresh food
- Healthier frozen meals

Source: World Packaging Organization

CPG Trends



- Shorter turnaround time
- Eye-Popping Graphics to “sell” the product on the floor
- Reduced costs
- Smart packaging

Flexo Press Trends



- More colors (up to 7 color plus a varnish)
- Higher speeds
- Servo driven (push for thinner plates!!)
- Tighter registration capabilities
- Dryers after each station; curing station prior to diecut section
- Dry trap 4 color process, 2 spot colors and a varnish at max speed

Packaging Trends

- **Lighter Weight Liners**
 - Reduced cost
 - A greater challenge for high-end printing
 - DigiCorr is a must to mitigate fluting

- **Retail Ready Packaging (RRP)**
 - THE next generation of merchandising
 - The European market has been utilizing RRP for over 5 years.

Retail Ready Packaging



- 75% of RRP demand originates in the food sector, while the beverage industry accounts for 6%
- The most popular type of RRP is corrugated board, which accounts for 75% of the total volume of materials used in 2011.
- Within this, die-cut display containers are the predominant choice, making up more than half the market

Retail Ready Packaging

Key Driver – Improved Marketing Strategy

- Compliment the primary pack in order to facilitate and improve display
- Improve product identification, product presentation and brand recognition
- Adds structure to the shelf making it easier for shoppers to navigate the store
- Consumers demand convenience and availability

Key Driver – Improved Store Efficiency

- Improved supply chain and store efficiency
- Less double handling of product
- High labor turnover rate – easier to train new employees
- Recyclability

This Should Be Our Pond



Go Fish!



Retail Ready Packaging



Retail Ready Packaging



Voice of the Customers

*Pratt Industries
Mid Atlantic Packaging
Great Northern Corporation
Allpak Trojan*

Printer's Considerations

- Run length
- Number of colors
- Graphic / trap requirements
- Turnaround time to meet customer's needs
- Cost of job
- Press capabilities
- Board type / thickness

******* Note – all four printers said a flat-top dot digital plate is a “must” to compete with litho quality***

Litho Advantages

- Cost effective for short runs
 - Especially “one-time” short orders
- Finer line screens and halftones
 - Typically run 150 – 180 line screen (no need to run less)
 - Large jobs with detailed skin tones go litho – can’t risk changes in ink and plate wear with flexo
- Tighter registration
- Perception in industry that litho can only do high quality jobs

Flexo Advantages

- Cost effective for medium to long runs
 - Especially repeat jobs
- Faster turnaround time
 - Flexo – one step process (average range is 1 – 2 days)
 - Litho – Up to 3 step process (average range is 3 – 5 days)
- Direct print on all board types
 - No limitation to print any job

Flexo Advantages

- Press size format
 - Most litho presses limited to 40" x 56"
- Thinner liner medium
 - 41lb for flexo; litho 56lb (to withstand lamination)
- Quality has improved tremendously
 - Up to 150 line screen

Sweet Spot for Flexo

# of Boxes	Flexo	Litho
0 – 1,000 boxes		X
1,000 – 5,000 boxes		X
5,000 – 10,000 boxes	X	X
10,000 – 25,000 boxes	X	X
25,000 – 50,000 boxes	X	
Over 50,000 boxes	X	



Cost Model Comparison

Language / Sprache / 语言 : English

used Currency: RMB

WELCOME

COST-COMPARITOR FOR PRINTING PRODUCTS

Customer :

Printing Type One : OFFSET Sheetfed

Printing Type Two : FLEXO Sheetfed

Job : DuPont test print

Data Input

Job Comparison

Charts

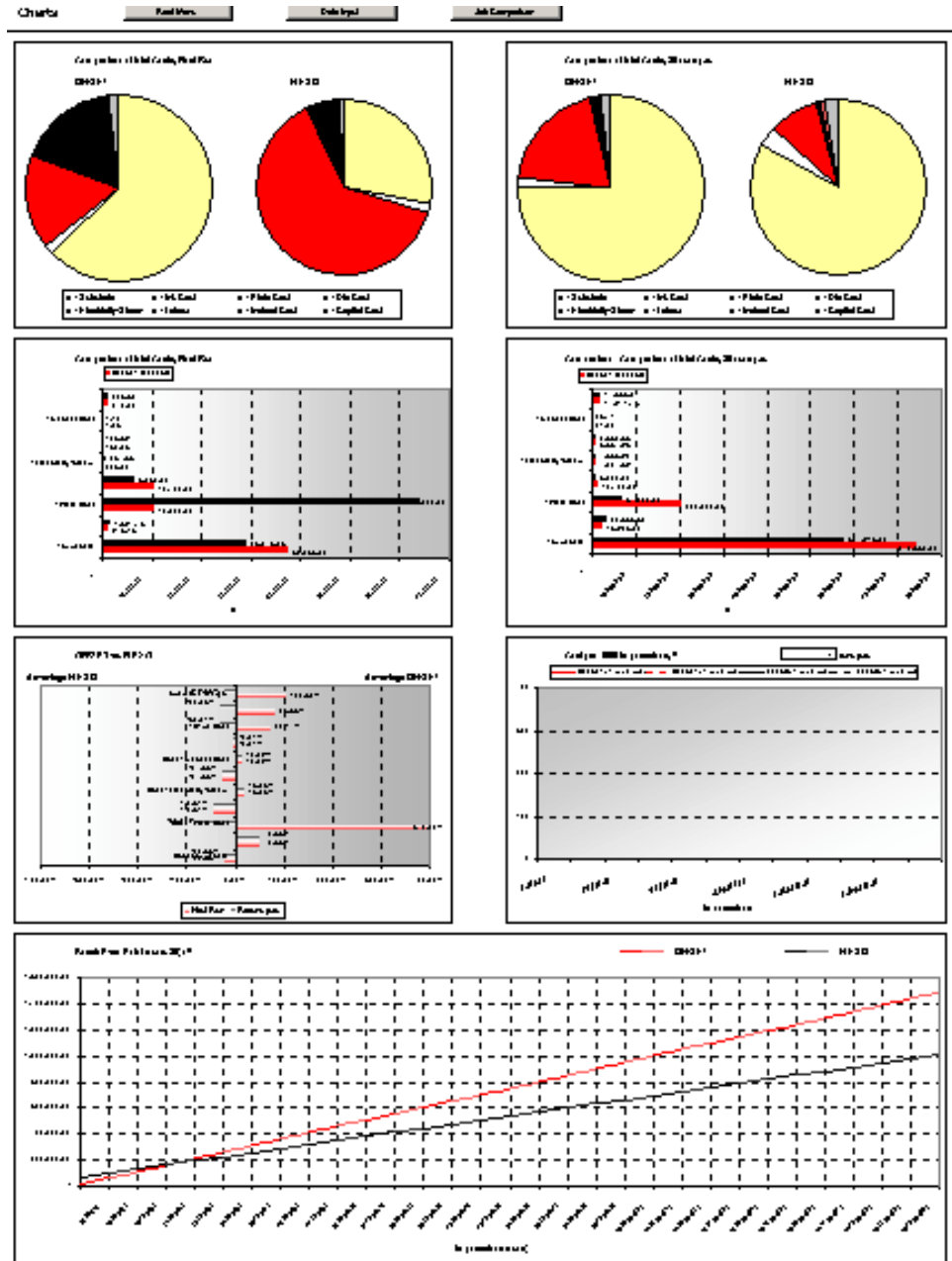


IMPORTANT: Cost models are never perfect and depend on many variables and inputs and the cost model(s) shared here are based on the research studies and market data analysis of the value chain we conducted in China



Cost Model Comparison

Cost Center	Model A	Model B	Model C
Material	1000000	1000000	1000000
Labour	2000000	2000000	2000000
Overhead	3000000	3000000	3000000
Profit	4000000	4000000	4000000
Total	10000000	10000000	10000000



Cost Model Comparison

Description:

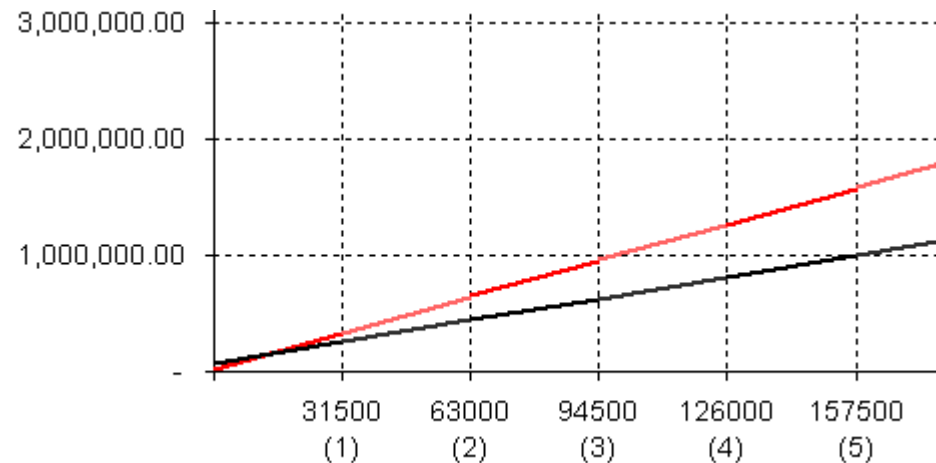
In the cost model, we assume every order's quantity is 30,000pcs, with 5 repeat orders per year. Our analysis indicate that the breakeven point occurs within the first order and within the first print run; thus, in this case, the flexo price will be always lower than offset.

Typical for OEM, private branded products for home appliance, consumer electronics, and office automation products

Cost model---Break-even point

Offset

Flexo



Cost Model Comparison

O F F S E T	Repeat Runs	1	3	5	10	30	50
	Quantity (pcs)						
	500	8.8x	6.5x	6.1x	5.7x	5.5x	5.5x
	1500	3.5x	2.8x	2.6x	2.5x	2.5x	2.4x
	5000	1.7x	1.4x	1.4x	1.3x	1.3x	1.3x
	10000	1.3x	1.1x	1.1x	1.1x	1.1x	1.1x
	30000	1x	1x	1x	1x	1x	1x
50000	1x	1x	1x	1x	1x	1x	

F L E X O	Repeat Runs	1	3	5	10	30	50
	Quantity (pcs)						
	500	16.5x	7.3x	5.4x	4.0x	3.2x	2.9x
	1500	5.9x	2.8x	2.2x	1.7x	1.4x	1.3x
	5000	2.1x	1.2x	1x	0.9x	0.8x	0.8x
	10000	1.4x	0.9x	0.8x	0.7x	0.7x	0.7x
	30000	0.8x	0.7x	0.6x	0.6x	0.6x	0.6x
50000	0.7x	0.6x	0.6x	0.6x	0.6x	0.6x	

1x = 1 Price Unit

For example: For this size box, a print quantity of 10,000 pieces with 10 repeat runs (total 100,000), cost savings are estimated at 30% off a similar offset/litho job

One Printer's Comments

- “We are converting a lot of our larger clients from offset to direct print. I am talking about beauty shots, traditional taboo areas that nobody would ever consider”.
- “Many consumer product companies are saying we want cost savings and we think the direct print quality is there”.
- “Pallets in club stores were often defaulting to litho. We did press fingerprinting, then ran a process job and proved that this work can be done flexo”.
- “We’re taking double digit costs out of some jobs. If your looking at a pallet that has 12, 16, 20 trays on it and your doing 1000 pallets, the cost savings is significant”.
- “It all comes down to volume”.

In Store Print Examples

We Can Do Better!!



We Can Do Better!!



Does Less Color Mean Cheaper Product?



Look a Little Closer

The image shows a Samsung TV on a store display. The TV screen displays a news broadcast with the text "Class Eli Manning for most road playoff wins for starting qua" and the "NFL NETWORK" logo. Below the TV, there is a price tag and a protection plan advertisement.

3 YEARS EXTRA PROTECTION for TVs

900075
SAMSUNG UN75E9000
75" CLASS (75.0" DIAG)
3D 1080P EDGE-LIT LED

- Smart TV w/ Full Function
- 3D Sync
- 1 Year Service Plus Plan
- 1 Year Workforce Plan
- 3D Sync
- 100% Satisfaction Guarantee
- Free Delivery

8999.99

Protect your TV against expensive repairs

	TV Price Under \$500	TV Price \$500 to \$2,500	TV Price Over \$2,500
Service Plan	\$29.99	\$59.99	\$99.99

Learn more about the 3 Years for Workforce Protection Plan at 1.800.735.7353

SAMSUNG

Flexo Printing



What Sells You In This Photo?



Remember This Award Winner?



Vegetable Trays



Do You See the Opportunity?

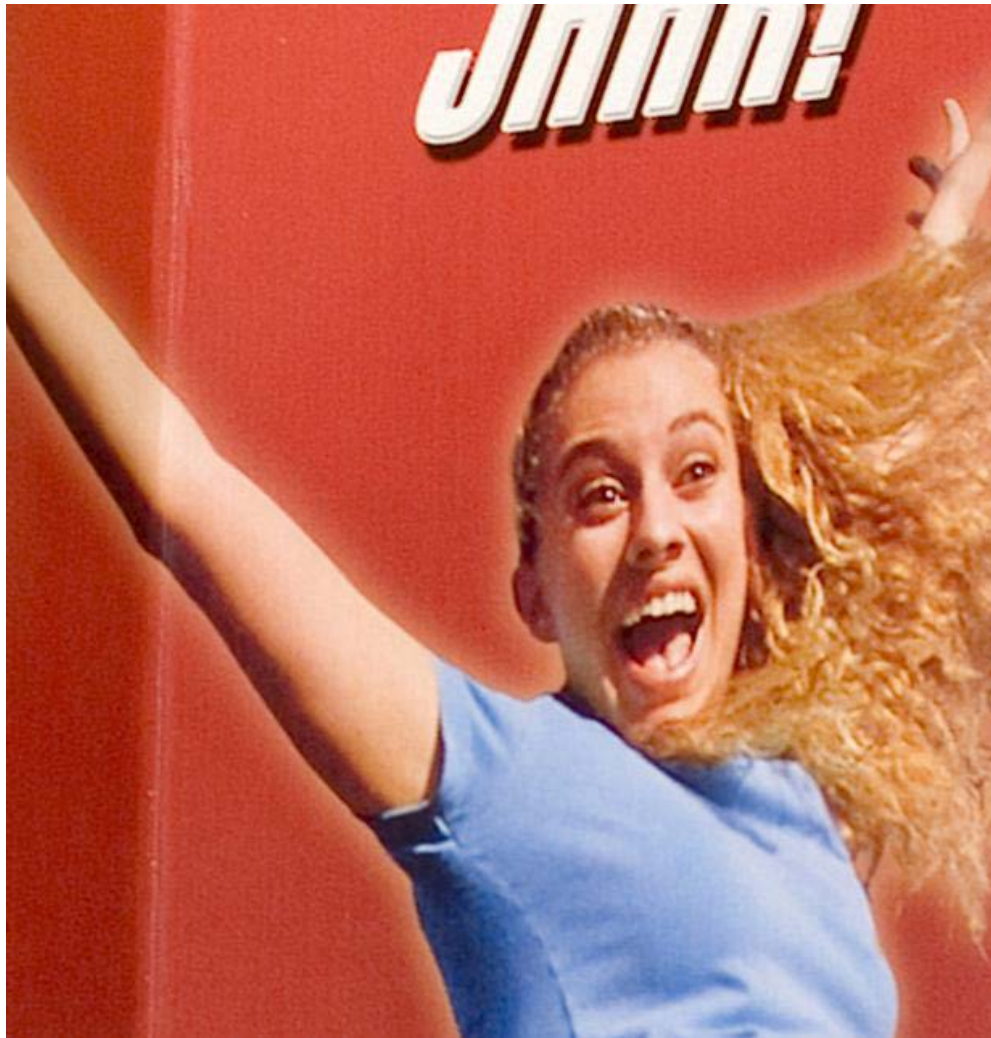


Looks Good From Here

- Viewing distance typically 6-20 feet
- Consumer has already noticed
- Impossible to determine print process



***From 12" you can see the difference but.....
the consumer is already hooked!!***





Your Sales Opportunities Summary



- All current litho jobs between 5,000 and 25,000 boards
- Any flexo press with 4 or more colors
- Processed, fresh produce, and frozen food and beverage sub-segments
- Retail-Ready Packaging
- More profitable high-end jobs vs. low margin brown box work
- Short turnaround jobs
- Visit the Club Stores to find your opportunities



Summary

- With the industry stagnant for the foreseeable future, we must expand flexo's opportunity
- Prepress, plate and press technology are there and the converters are printing outstanding work.
- We need to change the perception by promoting flexo and go after litho whenever possible

Questions??



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Thank You!!



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