

Putting Construction Materials Demand in Context



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Current economic influences

- Moderate real GDP growth (2-3%)
- Low inflation (CPI change 1.5-2.5%)
- Moderate job growth, low unemployment (avg. 150,000 jobs/mo., 4.6% unem rate)
- Rising real wages, personal income (2%)
- Worries about housing, credit, falling dollar

The shifting construction market

<u>Segment</u>	<u>2006</u>	<u>7/07</u>
Total (tril. \$, SAAR)	\$1.19	\$1.17
% of total		
Private residential	54%	46%
New SF	35	26
New MF	4	4
Improvements	14	15
Private nonres.	25	30
Public	21	25

Housing outlook

- SF: No end yet to decline in permits, starts or spending
- Don't expect upturn before middle of '08
- MF: Rental construction cushioned the fall in condo starts but now many owners are trying to rent out houses and condos

Major nonresidential categories

<u>Category</u>	<u>'06 spending</u>	<u>share</u>	<u>'07 change</u>
Educational	\$86 billion	16%	+13%
Commercial	\$76 billion	14%	+15%
Hwy & street	\$72 billion	13%	+ 5%
Office	\$55 billion	10%	+22%
<u>Other</u>	<u>\$256 billion</u>	<u>47%</u>	
Nonresid total	\$545 billion	100%	+14%

Materials costs

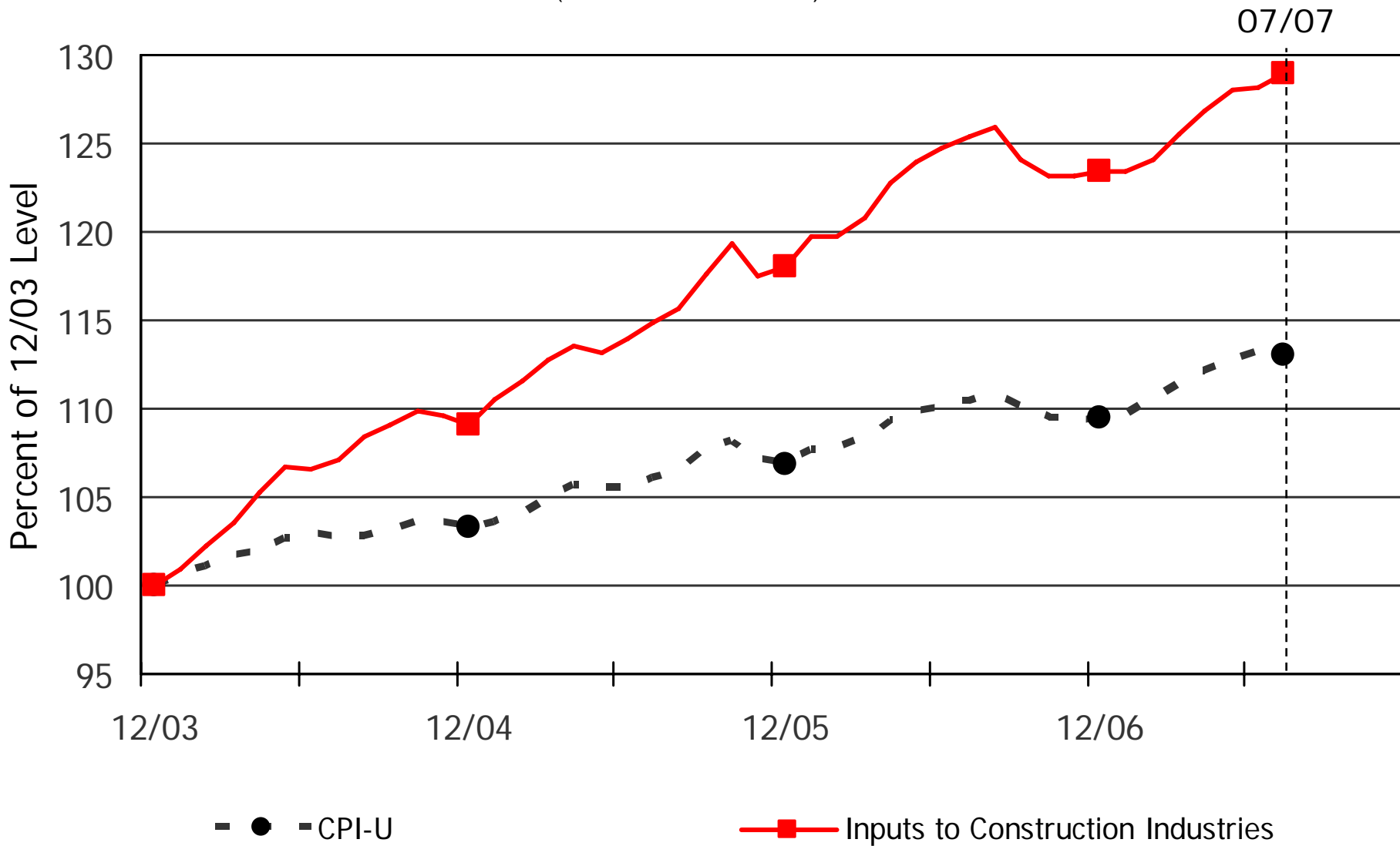
- Persistently higher increases for construction inputs than for overall economy:

12 mo. to:	<u>12/04</u>	<u>12/05</u>	<u>12/06</u>	<u>7/07</u>
Const PPI	9.1%	8.2%	4.6%	2.8%
CPI-U	3.3%	3.4%	2.5%	2.4%
Cumulative from 12/03 to 7/07:				
Const PPI				29%
CPI-U				13%

- PPI drivers: steel, gypsum, diesel, asphalt, concrete, copper, plastics, aluminum

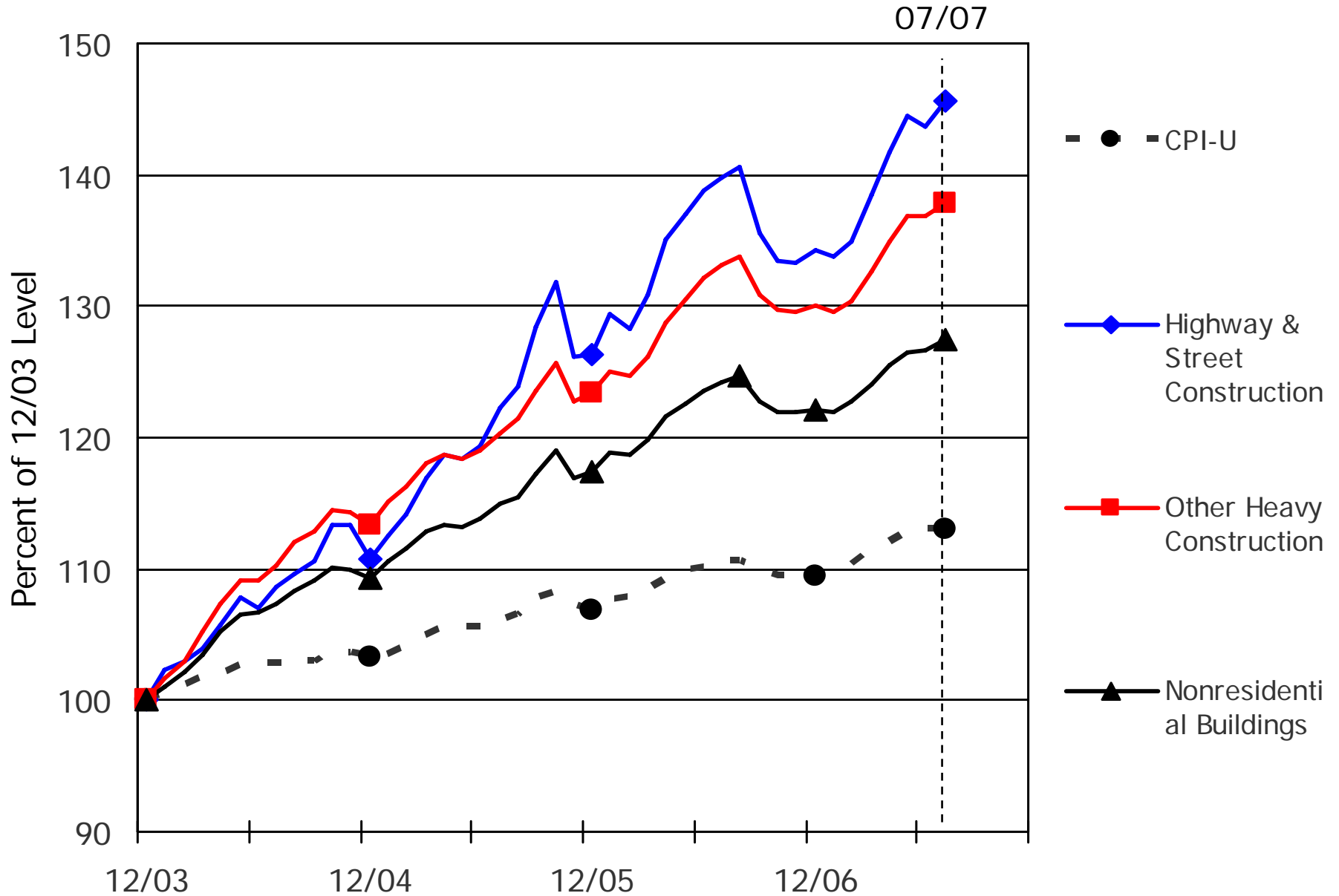
Cumulative Change in Consumer & Construction Prices

(All PPIs = 100 in 12/03)



Cumulative Change in PPIs for Construction Types

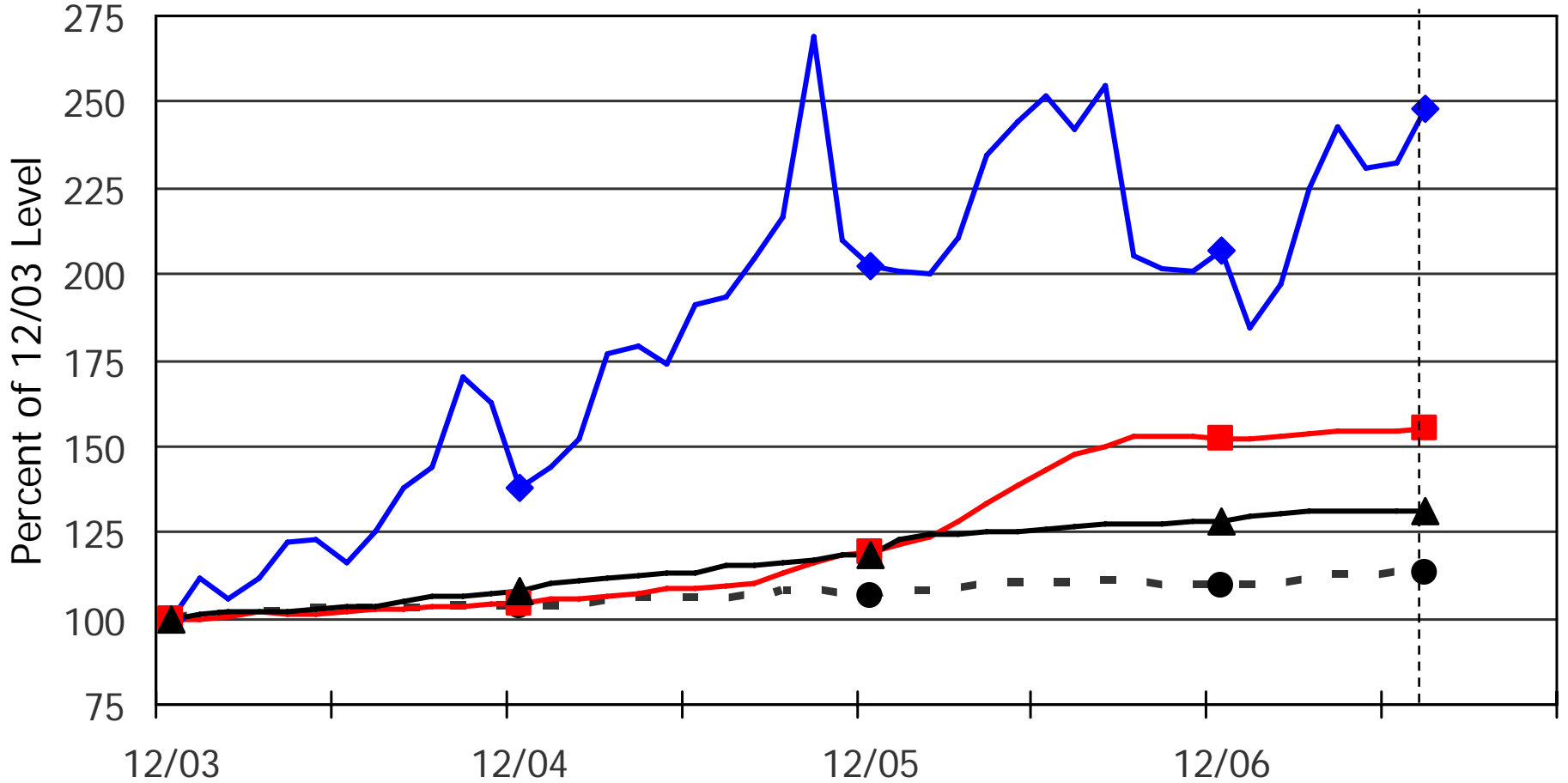
(All PPIs = 100 in 12/03)



Cumulative Change in PPIs for Selected Highway Inputs

(All PPIs = 100 in 12/03)

07/07

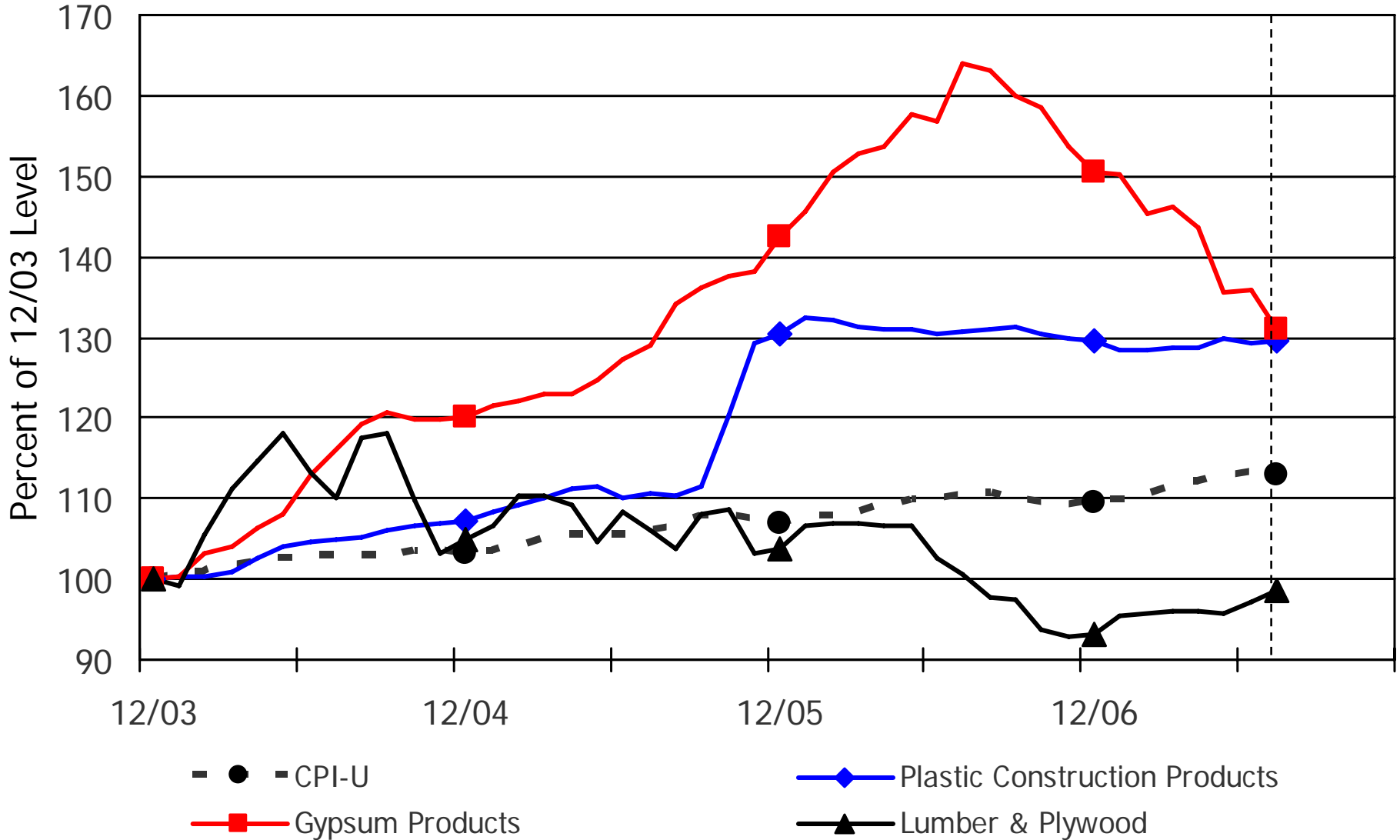


● - CPI-U ◆ - #2 Diesel Fuel ■ - Asphalt Paving Mixtures & Blocks ▲ - Concrete Products

Cumulative Change in PPIs for Selected Building Inputs

(All PPIs = 100 in 12/03)

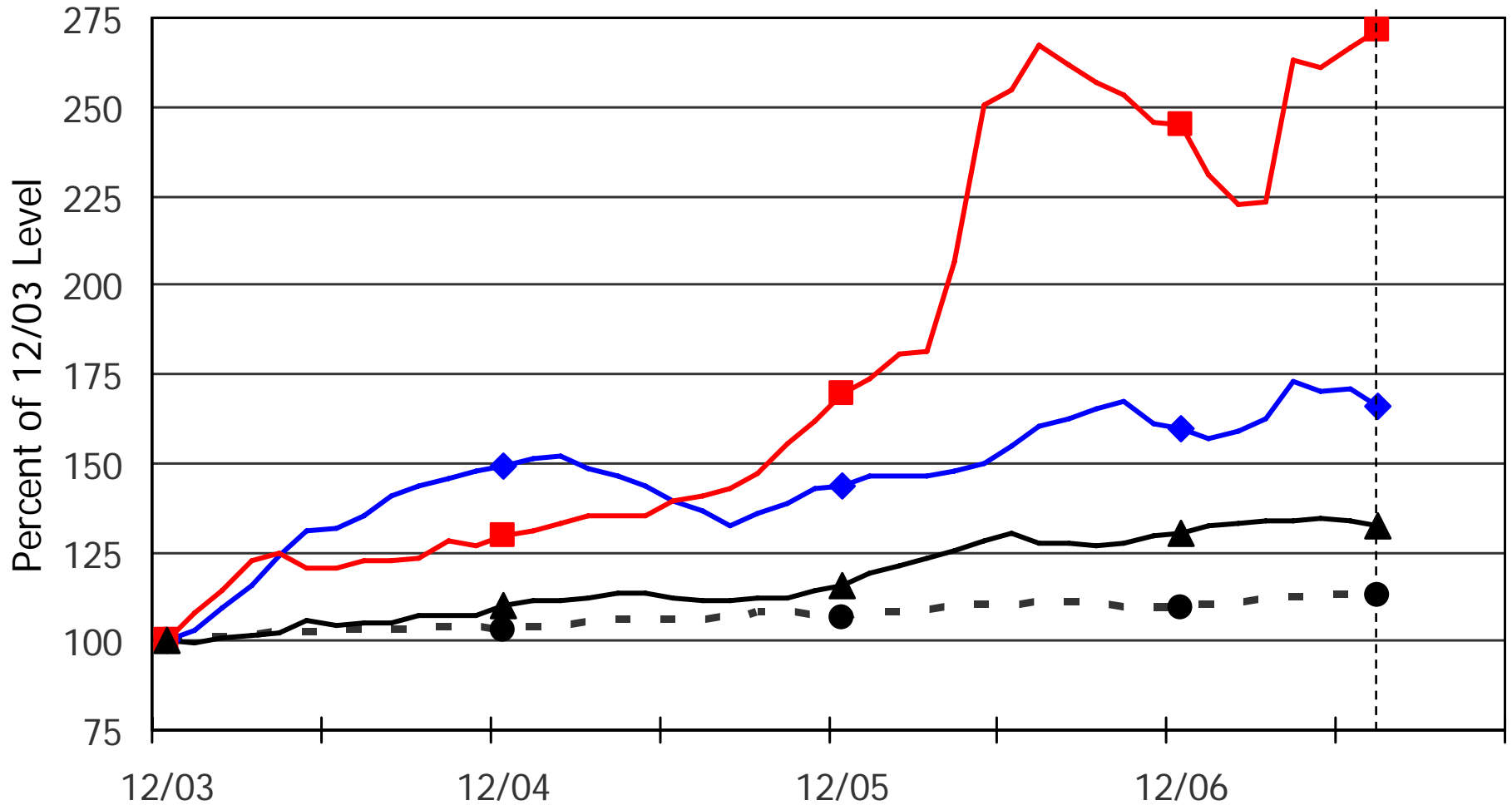
07/07



Cumulative Change in PPIs for Selected Metal Products

(All PPIs = 100 in 12/03)

07/07



—●— CPI-U

—◆— Steel Mill Products

—■— Copper & Brass Mill Shapes

—▲— Aluminum Mill Shapes

Outlook for materials (3-6 months)

- Falling prices: wood, gypsum products; perhaps plastics
- Likely to rise: diesel, asphalt, copper
- No shortages but longer lead times for some items
- Year-over-year PPI change: 3-5%

Outlook for materials (1-5 years)

- Construction remains **dependent on specific materials**
- Same materials in demand worldwide, with uncertain supply growth (e.g., copper, oil)
- Construction **requires physical delivery**
- Thus, industry is subject to **price spurts, transport bottlenecks, fuel price swings**
- Expect 6-8% PPI increases, higher spikes

Construction labor costs, availability

Average hourly wages, 8/06-8/07: +4.5%

- Construction employment change: -0.7%

- Residential construction : -4.5%

- (res building & specialty trades)

- Nonresidential construction: +1.5%

- (nonres building & specialty trades +1.4%;
heavy & civil engineering const. +1.6%)

- Architectural, engineering services: +2.9%
- Nonfarm total: jobs +1.3%, wages +3.9%

Construction labor outlook (12/07 vs. 12/06)

- ‘Official’ rise in nonres. employment: 2-4%
- ‘Official’ decline in res. employment: 4-6%
- + 400-500K ‘res’ specialty trades in nonres
- = Actual nonres. employment rise: 11-16%
- Actual res. employment loss: 16-20%
- Wage increase: 5% (partly due to greater proportion of nonres., hence higher-paid)

Summary for 2007

- Total const. spending: -6% to -3%
Res: -15% to -20% (huge drop in new SF;
MF and improvements down slightly)
Nonres: +10-15% (led by energy & power,
hospitals, lodging)
- Materials costs: +3-5% Dec.-Dec.
- Labor costs: +4.5-5.5% Dec.-Dec.

Summary for 2008

- Total construction spending: +1-5%
Res: +1-3% (turnaround after mid-2008)
Nonres: +3-7% (led by energy & power, hospitals; **weaker highways**, lodging)
- Materials costs: +6-8%
- Labor costs: +5-6%

AGC Economic Resources

(sign up by email to simonsonk@agc.org)

- *The Data DIGest*: weekly one-page email
- PPI tables: emailed monthly
- *Construction Inflation Alert*: Oct. & March
- Audioconferences: Dec. & June
- State-specific emails (timing varies) and fact sheets: [www.agc.org /factsheets](http://www.agc.org/factsheets)



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