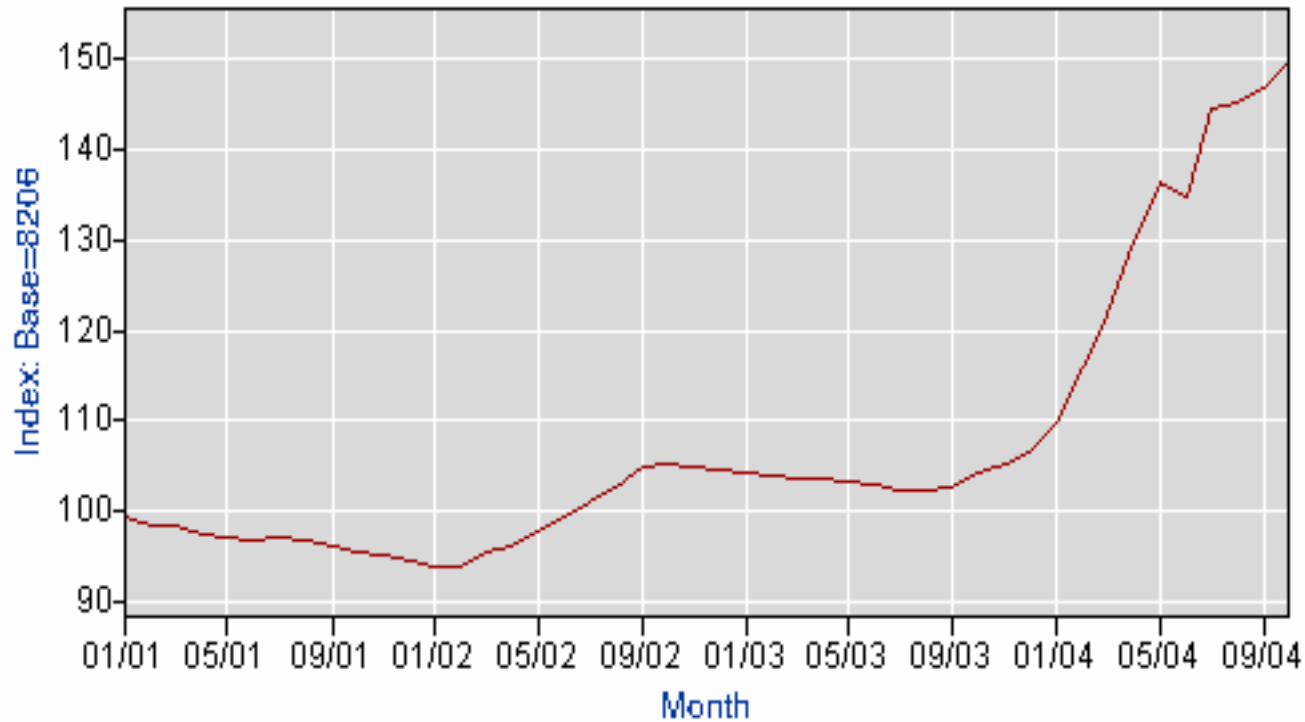


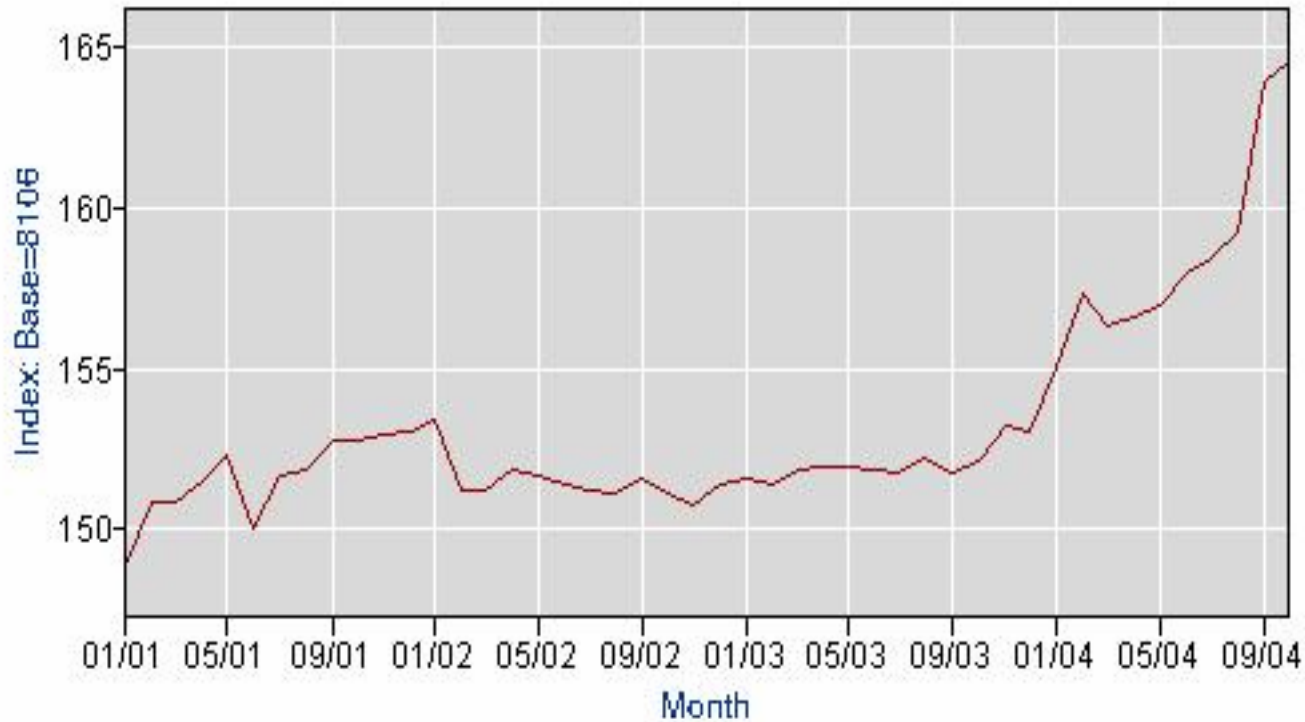


Construction Industry Market Price Escalation

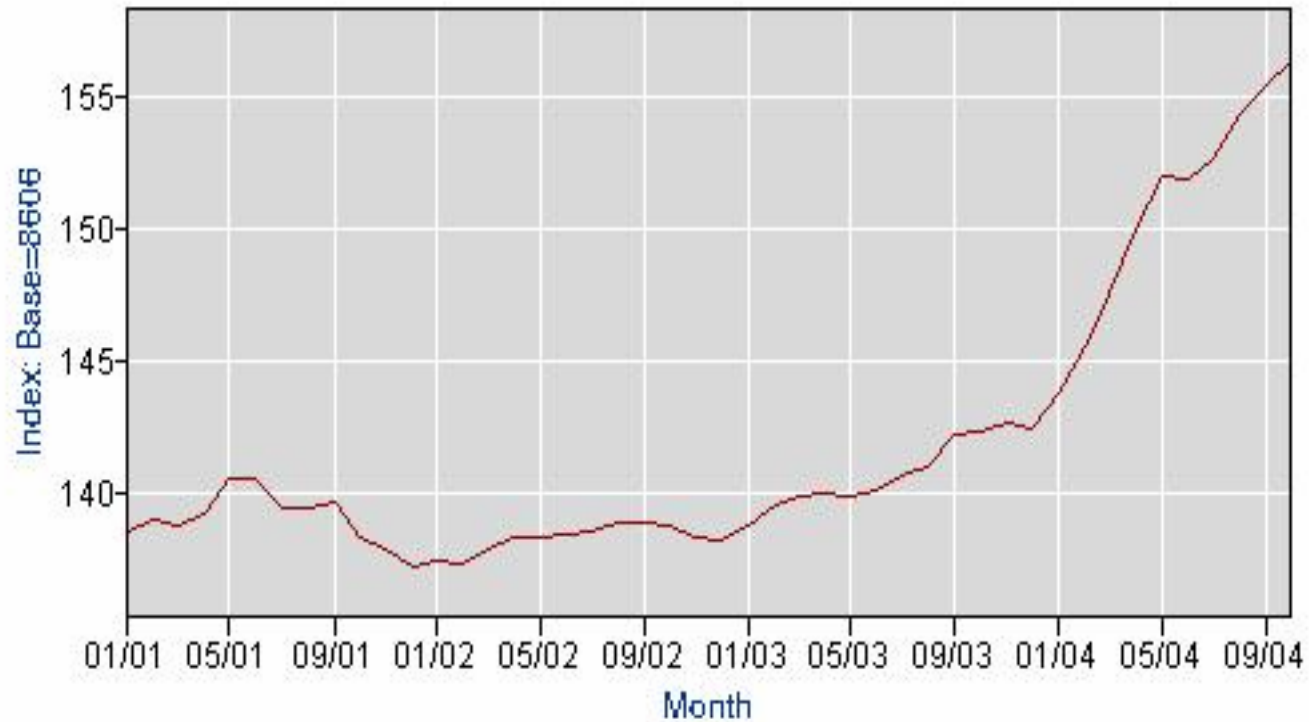
Steel Mill Products



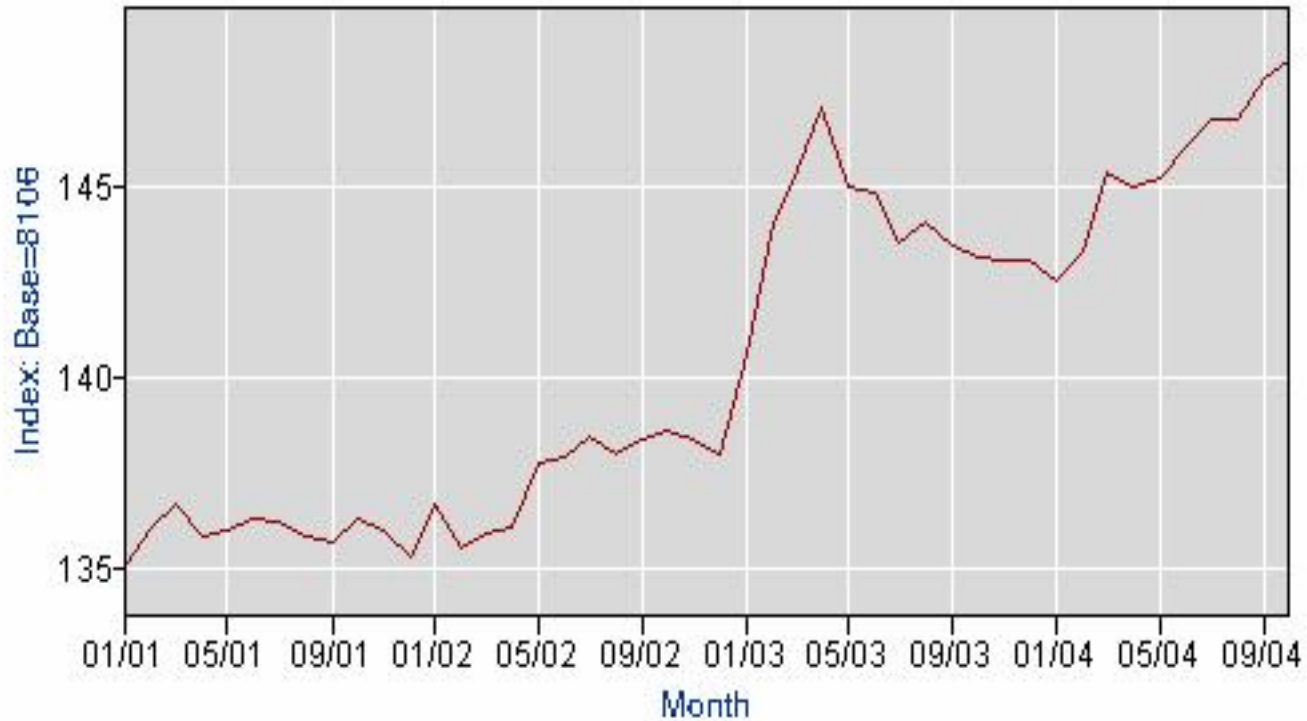
Ready Mixed Concrete



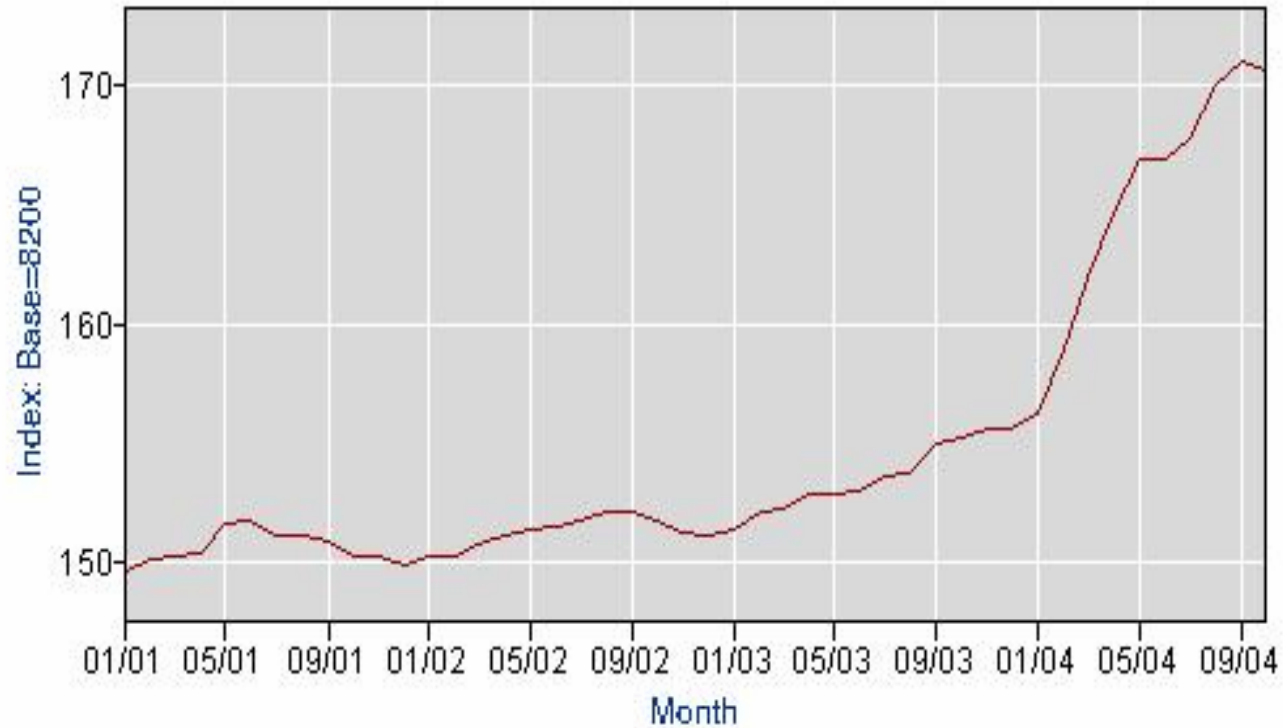
Inputs to Construction



Paving Asphalt



Materials & Components for Construction




Leading Indices

- Building Cost Index (BCI) – 70 hours of skilled labor and a composite of steel, lumber and concrete prices
- Construction Cost Index (CCI) – 200 hours of non-skilled labor and a composite of steel, lumber and concrete prices
- Materials Price Index (MPI) – A composite of common building materials including steel, concrete, lumber, drywall, plaster, asphalt, plumbing and masonry products.

	20 Yr Average	2003 Average	Jan – Aug 2004 Average	Aug – Dec 2004 Average
BCI	3.1%	3.1%	8%	12%
CCI	3.2%	3.2%	5%	8%
MPI	0.9%	1.2%	22%	33%



Forecast

- No sign of reduction in demand for construction services in California in the next 2 years
 - Primary materials spikes are showing signs of moderating
 - However, few indications that prices will fall as demand continues to be strong
 - Supply of construction materials is slow to respond to market demands
 - Do not anticipate a significant reduction in the cost of materials
 - A high degree of risk remains for bidders
 - Bidders will realize increased risk premiums
 - Likely to continue through 2005
- 




Impacts of a Volatile Market

- Planning
 - Design
 - Procurement
 - Construction
- 
- 




Procurement Impacts

- Demand (foreign and domestic) is outpacing market capacity to provide responsive bids
 - Extremely high bids – exceeding anticipated costs by as much as 50%!
 - Not across the board – depending on bidder interest. Unit prices can vary by a factor of 3!
 - Increase fueled by demand, not by increase in input costs
 - Dramatic increases in steel, lumber and concrete
- 




Impact Examples

- Steel is in high demand overseas
 - Steel tariffs lifted recently have created a truly global market.
 - The weakened US Dollar makes it more profitable for foreign companies to ship to Asia.
 - Higher fuel and energy expenses, as well as increased labor rates, have caused production costs to rise.
 - Concrete is in high demand overseas
 - China is preparing for 2008 Olympics and consuming 40% to 50% of the world's concrete supply in the process.
 - The US imports about 23% of its cement, the prime ingredient in concrete, from Malaysia; with fewer imports from Asia, demand outweighs supply. As it is more profitable to make 3 round trips to China than one to the US, Malaysian shippers began canceling their deliveries to the US in February 2004.
 - Cement shipped from Malaysia rose from **\$15 to \$80 per ton** during a 60-day span which began in March 2004.
 - Lumber is also in high demand
 - As part of the rebuilding effort, **22,400,000 square feet** of plywood and framing lumber was shipped to Iraq in the spring.
- 



Procurement – Some Solutions

- Evaluate project risks:
 - Bidders' interest in the project
 - Allocation of typical risks (geotech, warranty of design, delay, etc)
 - Price fluctuation provisions (up and down)
 - Project and construction contingencies
 - Escalation provisions:
 - Establish base selling price
 - Identify the appropriate index (not seasonally adjusted, preliminary or final, successor index)
 - State frequency of price adjustment
 - Define the mechanics of adjustments
- 


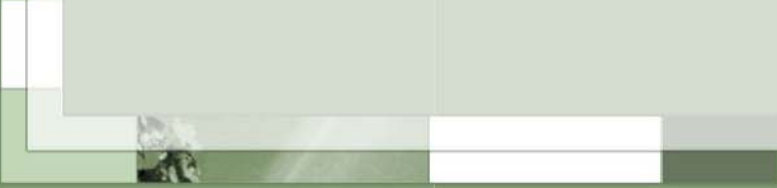


Construction Impacts

- Higher bids
 - Material shortage / delivery problems due to deferred commitments
 - Disputes and Claims
- 
- 



Construction Solutions

- Design reviews to reduce controllable risks
 - Minimize exposure to market volatility
 - Owner furnished material?
 - Project delivery system alternatives (Design/Build, CM @ Risk)
 - Alternative forms of contracting
 - Deductive bid alternates
 - Manage the Bid Date – avoid conflicts with other agencies
 - Avoid lengthy Addenda
 - Shorten Bid life to 30 days – Have contractor under contract sooner so that it can issue subcontracts and purchase orders
- 
- 



Construction Contract Bids

- Suppliers cannot commit to fixed prices
- Contractors submit fixed price bids without cost certainty
- Material delivery schedules are unreliable

*** Consequently, contractors assume a high degree of risk in their bids**

