

Valuation
Transaction
Consulting
Real Estate
Advisory
Fixed Asset
Management

Presentation to the IRM Energy Special Interest Group on Asset Valuation

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An Introduction to American Appraisal

Who we are and what we do





Quality, Integrity and Longevity

We have never strayed from our founding principles and approach each client interaction with the utmost integrity.

- We are a global valuation consulting company with over 1,000 professionals in 28 countries
- One of the largest independent valuation consultancies in the UK and the world
- Our staff in the UK comprise, chartered surveyors/engineers, accountants, statisticians and investment analysts
- We offer a full suite of valuation solutions
- Our professionals are dedicated to multiple industries and their related segments
- We are fully independent
- Our firm was established in 1896

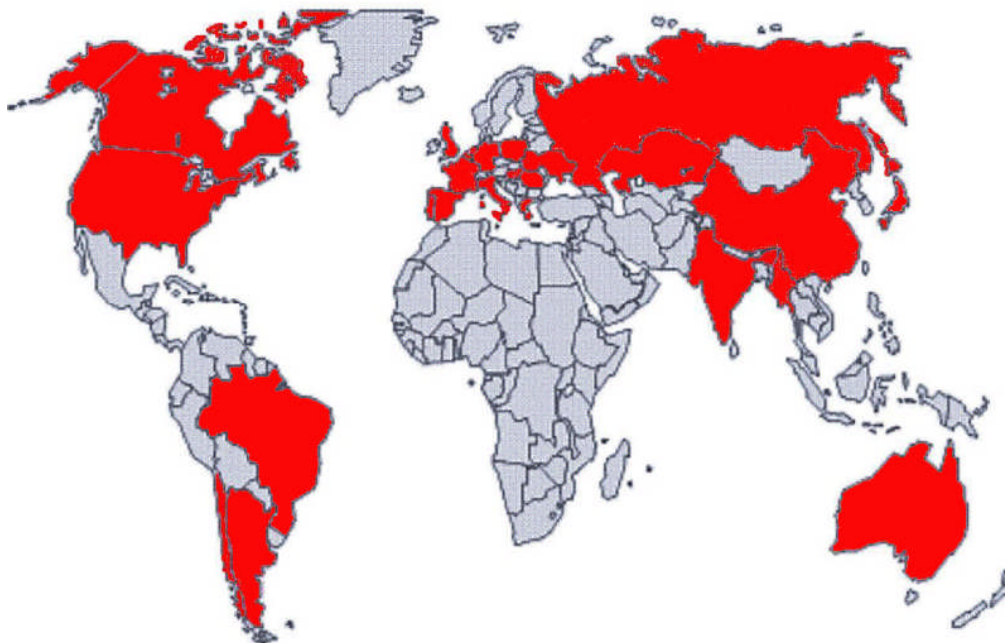




Global Leadership

A global economy demands a local presence. American Appraisal is firmly established in Europe, Asia and North America

- Our Directors are responsible for project delivery as well as marketing guaranteeing a high level contact throughout any assignment



- | | |
|-----------------------|---------------------------|
| Argentina | Kazakhstan |
| Australia | Luxembourg |
| Brazil | Netherlands |
| Canada | Poland |
| Chile | Portugal |
| China | Romania |
| Czech Republic | Russia |
| France | Spain |
| Germany | Taiwan |
| Greece | Thailand |
| Hungary | Turkey |
| India | Ukraine |
| Italy | United Kingdom |
| Japan | United States |
| | Opening in the UAE |
| | soon |





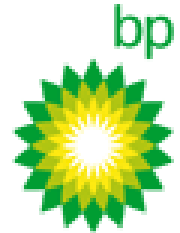
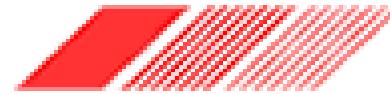
Industry Experience

Our professionals possess significant experience within virtually every commercial and industrial sector:

- Automotive
- Banking/Financial Services/Insurance
- Biotech/Pharmaceutical
- Bottling and Food Processing
- Consumer Products
- Health Care Providers
- High Technology
- Internet Technology
- Leisure, Resort and Casino
- Media and Broadcasting
- Oil & Gas & Chemicals
- Mining and Minerals
- Power and Utilities
- Real Estate
- Retail and Restaurants
- Software
- Iron, Steel, and metals
- Telecommunications
- Transportation



Representative Client Sample





Challenges for the Global Insurance Market



Insurance Value Reporting



Insurance Practices:

- Regionalised Insurance Management
 - Specialised Professional
 - Greater distance from physical assets
 - Lack of commitment to the process at a local or plant level
- Lack of unified global policy
 - Inconsistent inclusions or exclusions
 - Site improvements
 - Foundations
 - Below grade assets
 - Non-operational assets, etc



Insurance Value Reporting



Value reporting challenges:

- Differing concepts of insurable value
 - Replacement Cost/Reproduction Cost
 - Functional Replacement Cost
 - Net book value (depreciated)
 - Book value (gross)
- Different insurance value sources
 - Recent or old appraisal
 - Trending of fixed asset records
 - Direct reporting of cost basis from fixed asset records
 - Fair value reported from acquisition for whole or part of facility
 - Staff estimates
 - Standardised property value worksheets



Insurance Value Reporting



Value reporting challenges:

- Inconsistent accounting practices
 - Local capitalisation and depreciation procedures
 - Handled at plant, country or regional levels
 - Different cost centres, etc from legacy companies
 - Differing data formats
 - Varying levels of asset detail
 - Poor identification of assets



Insurance Value Reporting



Value reporting challenges:

- Specific accounting issues
 - Varying treatments of transferred assets
 - Current or past hyperinflationary economies
 - Rebasing of values following acquisitions
 - Restatement of values for asset impairments
 - Assets not booked to asset to correct class or category
 - Ghost assets, physically retired but still on the books
 - Original cost basis unknown
 - Significant expensed assets



Insurance Value Reporting



Value reporting challenges:

- Technical data
 - Size and construction details of buildings
 - Poor construction cost information
 - Overall plant capacities
 - Production line capacities
- Varying rates of inflation for buildings and equipment throughout the world



Market Conditions



Soft or Hardening Market ?

- Underwriters prefer well engineered/managed portfolios with:
 - Good supportable values
 - Accurate values for PML and EML
 - Professional risk management data
 - Current and appropriate Business Interruption data on both the limit and the period of indemnity





Market Conditions – Issues for the Energy Sector

High Value Assets often denominated in foreign currencies

- Major plant components sourced from small number of major suppliers
- Capital costs increased well above headline inflation over the past decade

High EML's

- Often running into hundreds of millions of dollars

High Risk/Volatility

- Materials used in production and processes involved create high risk

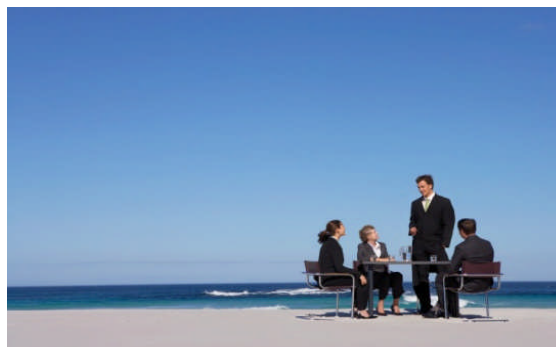
High BI exposure

- Businesses generate significant income and rebuild periods are considerable





Construction and Equipment Cost Trends





UK Construction Cost Trends

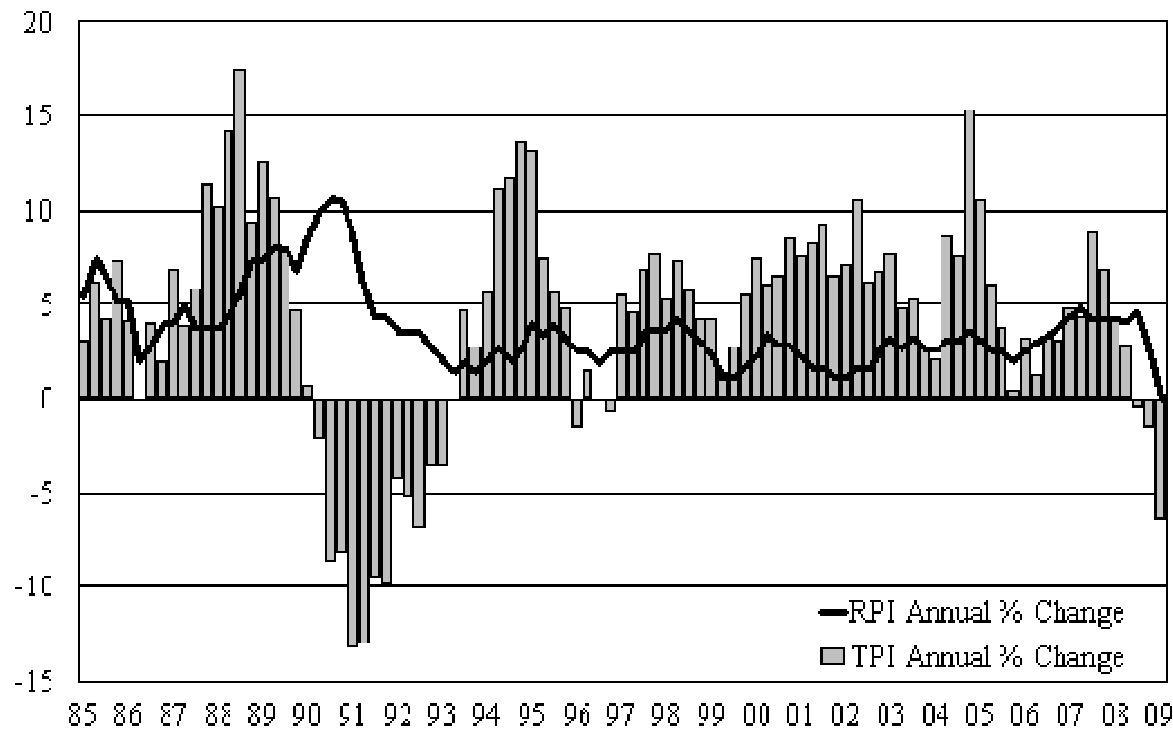
- 1985 to 2003 Tender Price Index (-15% to +15% per year) reflecting economic volatility
- 1985 to 2003 Building Costs Index (+2% to +7% per year)
- Steady indicators in 2003 to 2006 (6% to 7% per annum)
- A slight slowdown in 2007 (5%)
- Commodities cause increases in early 2008
- Followed by impacts of global recession which slows down activity for past 2 years
- Net 2008-2010 Broadly 20% decrease in the tender price index
- Overall approximately an increase over past decade of 50-60%





UK Construction Cost Trends

Tender Price Inflation
(Year on Year Percentage Change)

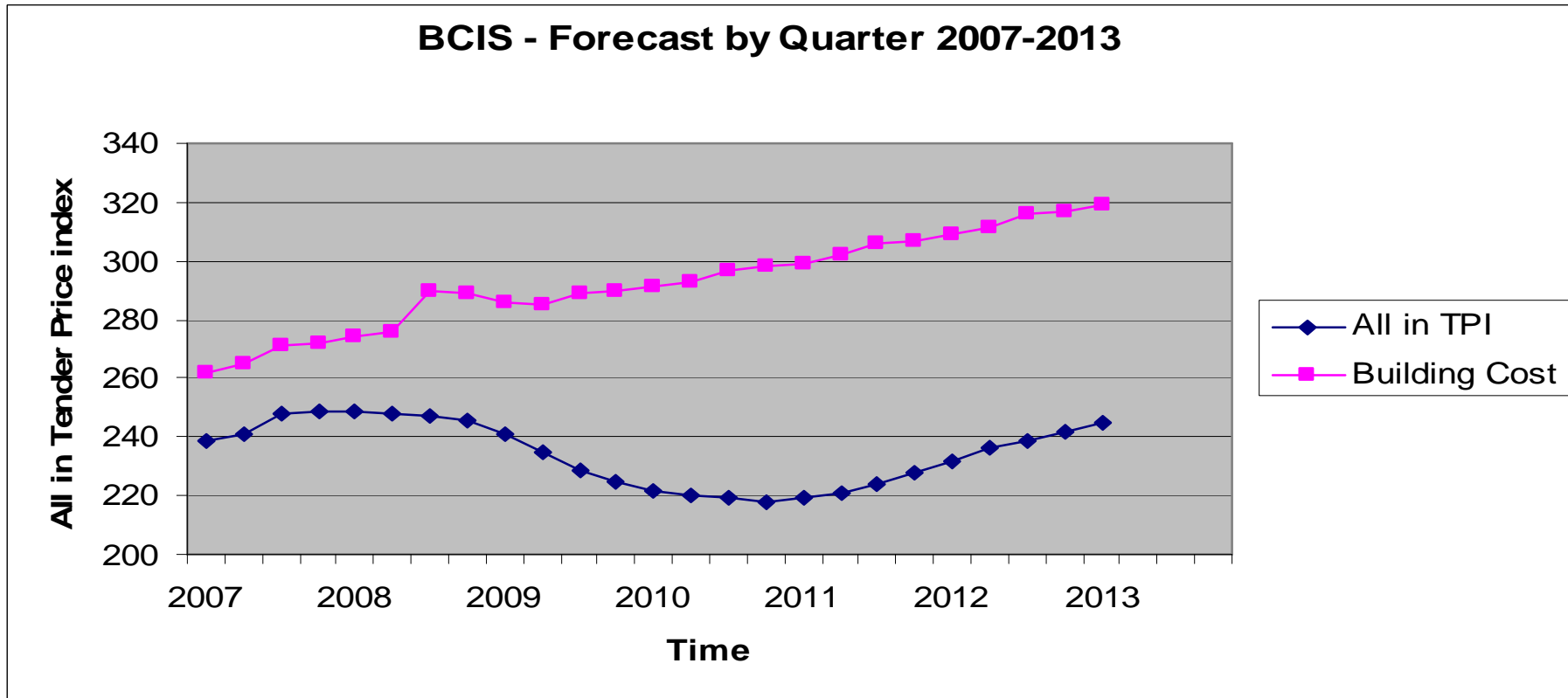


Source: BCIS, ONS





UK Construction Cost Trends



Sources cited:

- RICS Building Cost information Service





UK Construction Cost Trends

Equipment Inflationary Increases - 2006 to 2008

Machinery and Equipment Cost Trends

	2007	2008	2009
CRC – Chemical plant	2.4%	5.4%	2.7%
ONS Report MM17 Chemical	3.5%	1.2%	-0.2%
Association of Cost Engineers	1.30%	Suspended	Suspended

Sources cited:

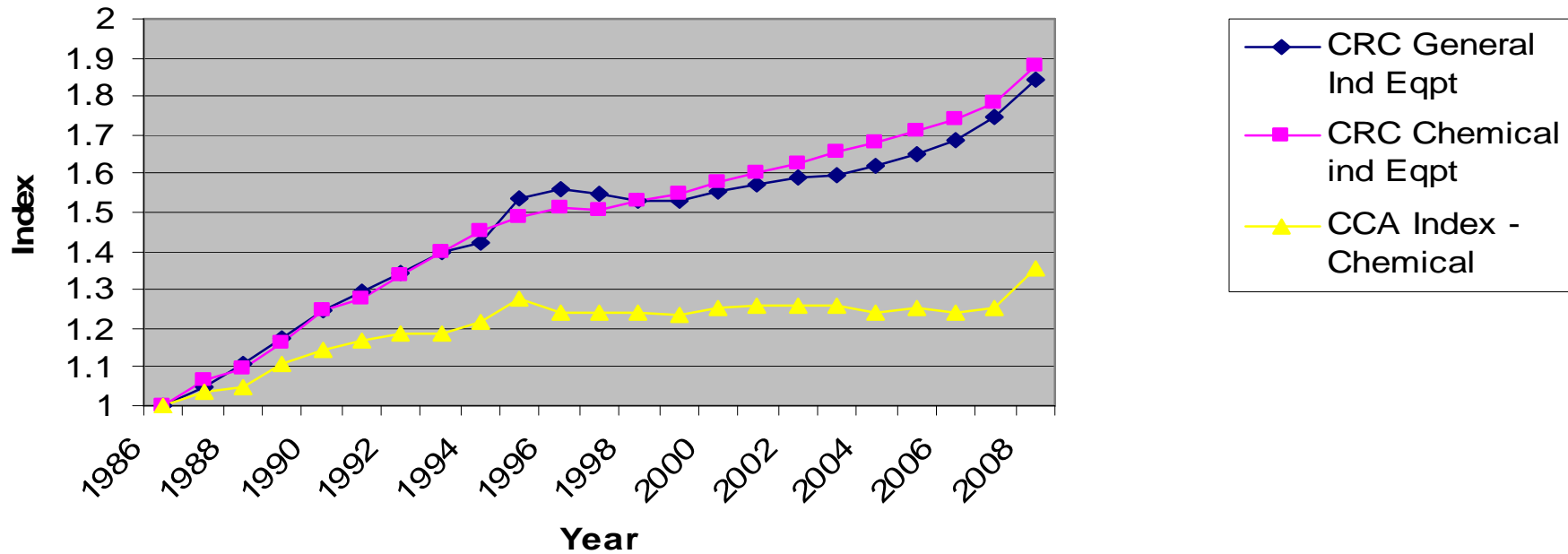
- Capital Replacement Costs Limited
- Office For National Statistics - Current Cost accounting Report
- Association of Cost Engineers





UK Construction Cost Trends

Comparison of UK Plant and Machinery indices



Sources cited:

- Capital Replacement Costs Limited
- Office For National Statistics - Current Cost accounting Report





UK Trends – Issues With Indices

Composition of Association of Cost Engineers Index – largest component derived from MM17 published by UK ONS

<u>Component</u>	<u>% weighting</u>
Tanks, reservoirs and containers of metal	1%
Pumps and compressors	2%
Taps and valves	1%
Furnaces and furnace burners	2%
Lifting and handling equipment	3%
Non-domestic cooling and ventilation equipment	1%
Other general purpose machinery n.e.c. (<i>not elsewhere classified</i>)	5%
Other special purpose machinery n.e.c.	78%
Computer and other information processing equipment	5%
Industrial process control equipment	2%





UK Trends – Issues With Indices

Composition of Association of Cost Engineers Index

Component	% Weighting
▪ Book binding machinery, including book sewing machines	0.5%
▪ Other printing machinery n.e.c,	12%
▪ Dryers for wood, paper, pulp, paper or paperboard; non domestic dryers n.e.c.	8.5%
▪ Machinery n.e.c. for working rubber or plastics or for the manufacture of products from these materials	3%
▪ Moulds; moulding boxes for metal foundry; mould bases; moulding patterns	50%
▪ Special purpose machinery n.e.c.	26%
Total	100%





Cost Trends Beyond the UK





US Construction Cost Trends

- 1986 – 2003 (1% to 3% per year).
- Significant construction inflation in 2004 (10.5%)
- Slowing but not back to normal in 2005 (5.5% to 6.5%)
- Mixed indicators in 2006 (5.6% to 8.0%)
- A definite slowing in 2007 (2.8% to 4.7%)
- Commodities cause increases in 2008 (4.9% to 7.2%)
- Most recent 12 months:
 - FM Global -0.4% (July 2008 to June 2009)
 - RS Means -0.5% (April 2008 to April 2009)
 - Marshall & Swift -3.8% (April 2008 to April 2009)
- **40% Inflation in 5 years!!!!!!!!!!**

Sources cited:

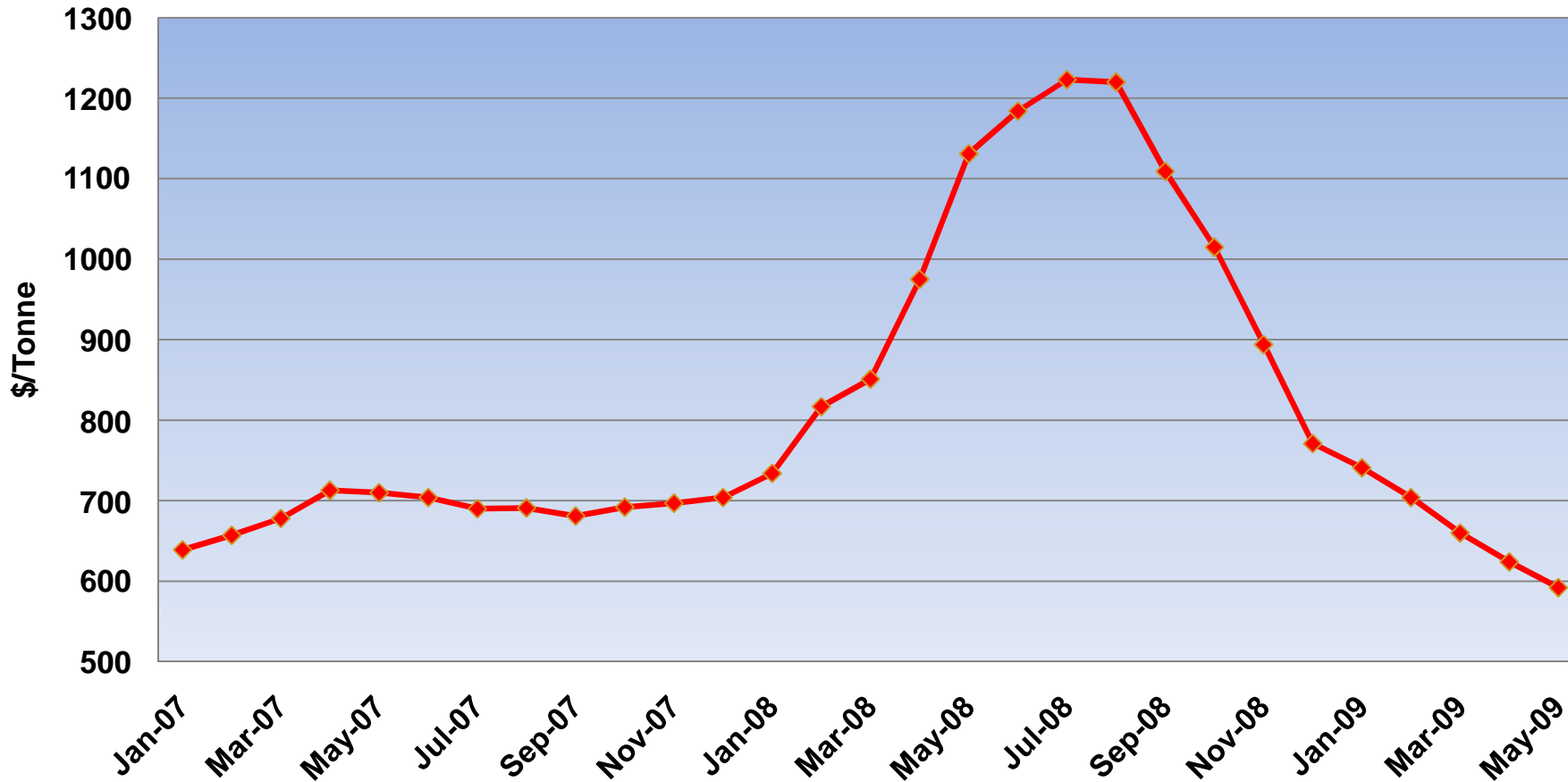
- Engineering News Record - Monthly Construction Economics Report, Building Cost Index
- FM Global - Industrial Cost Trends, United States Industrial Building Average
- RS Means - 30 City Average Construction Cost Index
- Marshall & Swift - Quarterly Cost Index





US Construction Trends - 2009 and Beyond

Composite Carbon Steel Price, US Average



Sources cited:

- MEPS (International), Ltd, World Steel Prices





US Equipment Cost Trends

Equipment Inflationary Increases, 2007 to 2009

Machinery and Equipment Cost Trends

	2007	2008	2009
Marshall & Swift - Ind. Average	3.3%	5.6%	-2.7%
FM Global - Industrial Equipment Composite	1.9%	5.1%	0%
BLS-PPI Capital Equipment	1.3%	4.0%	-0.2%

- Currency fluctuations are creating new replacement cost realities for imported machinery and equipment

Sources cited:

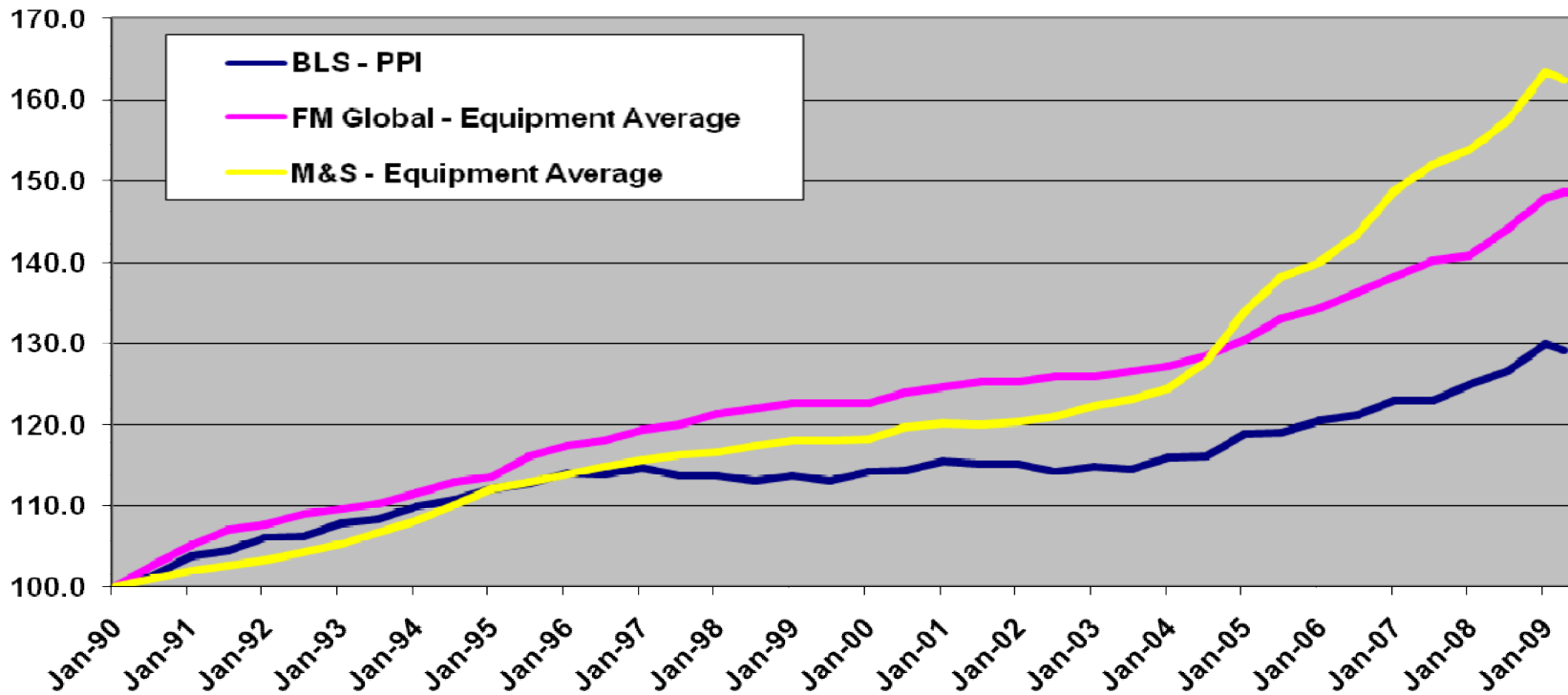
- Marshal Valuation Service - Marshall & Swift Quarterly Cost Index, industrial Equipment Average of All
- FM Global - Industrial Cost Trends, Industrial Equipment Composite
- US Department of Labour, Bureau of Labour Statistics - Producer Price Index, Capital Equipment Table WPUSOP3200





US Equipment Cost Trends

Equipment Cost Indices - Increases 1990 to June 2009



Sources cited:

- M&S - Marshal Valuation Service - Marshall & Swift Quarterly Cost Index, Industrial Equipment Average of All
- FM - FM Global – Industrial Cost Trends, Industrial Equipment Composite
- PPI - US Department of Labour, Bureau of Labour Statistics - Producer Price Index, Finished Goods Seasonally Adjusted Table WPSSOP3200





Energy Sector Capital Cost Trends

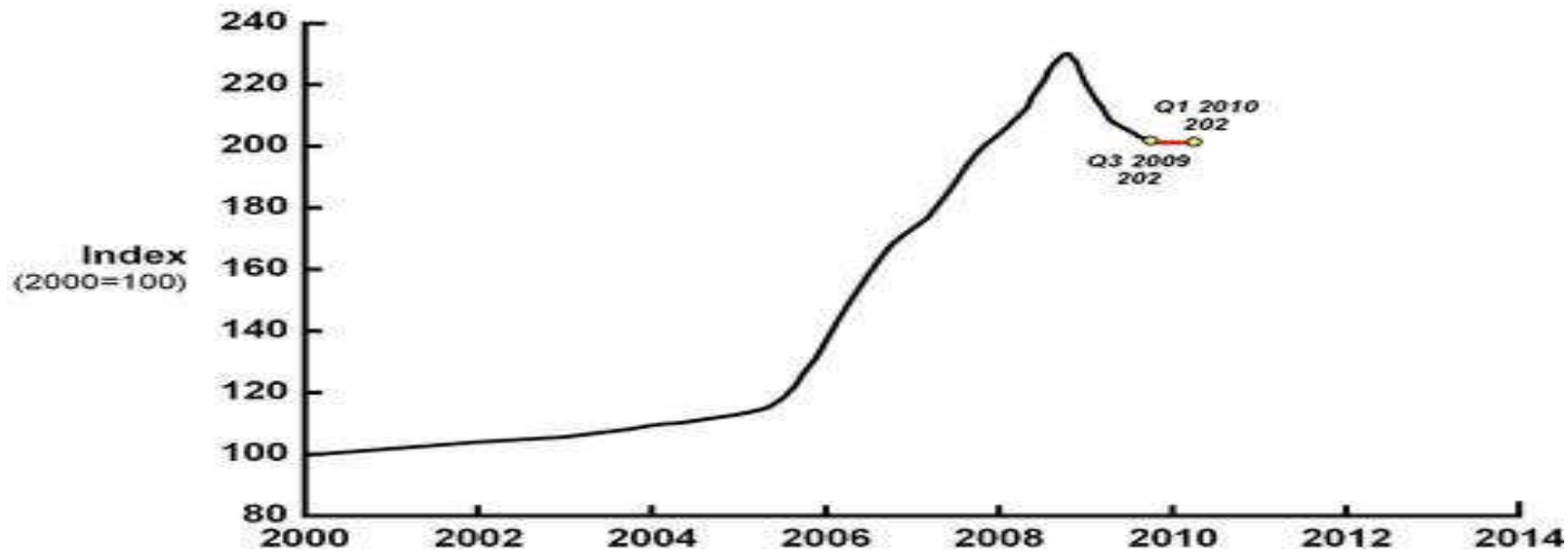
- Material Cost increases since 2000
 - Pressure Vessels +50%
 - Electrical Equipment +50%
 - Structural Steel +65%
 - Pipe Materials + >100%
- Some sectors have experienced even more dramatic increases
- Increasing and Volatile Lead Times for Specialist Capital items since 2005, for example:
 - HV Transformers 6 months to 12 Months
 - Offshore Platforms 24 months to over 48 Months
 - Chemical Process Unit 18 months to 36 Months
- Restricted supply as manufacturers have cut back on capacity in response to falling demand





Energy Sector Capital Cost Trends

IHS CERA Upstream Capital Costs Index

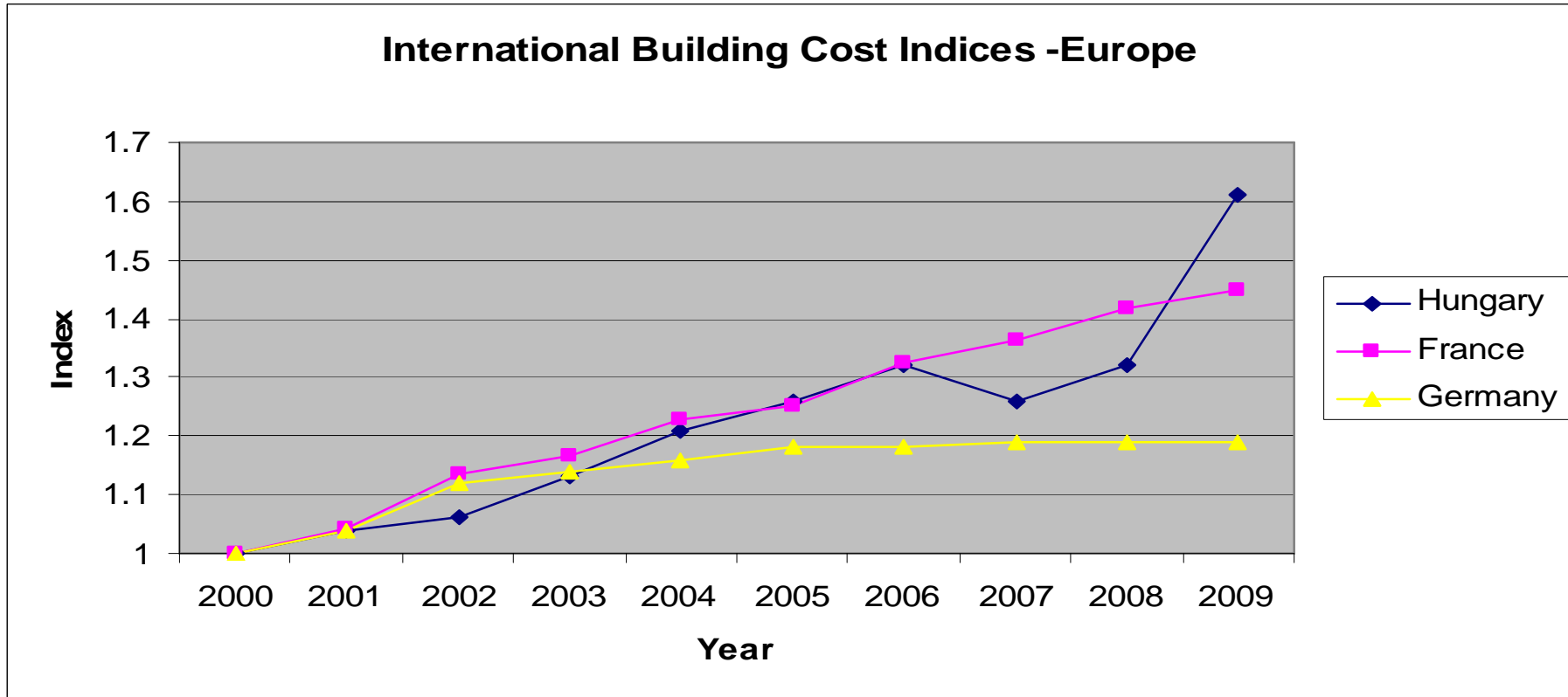


Source: IHS CERA.
91116-5_2206





European Cost Trends



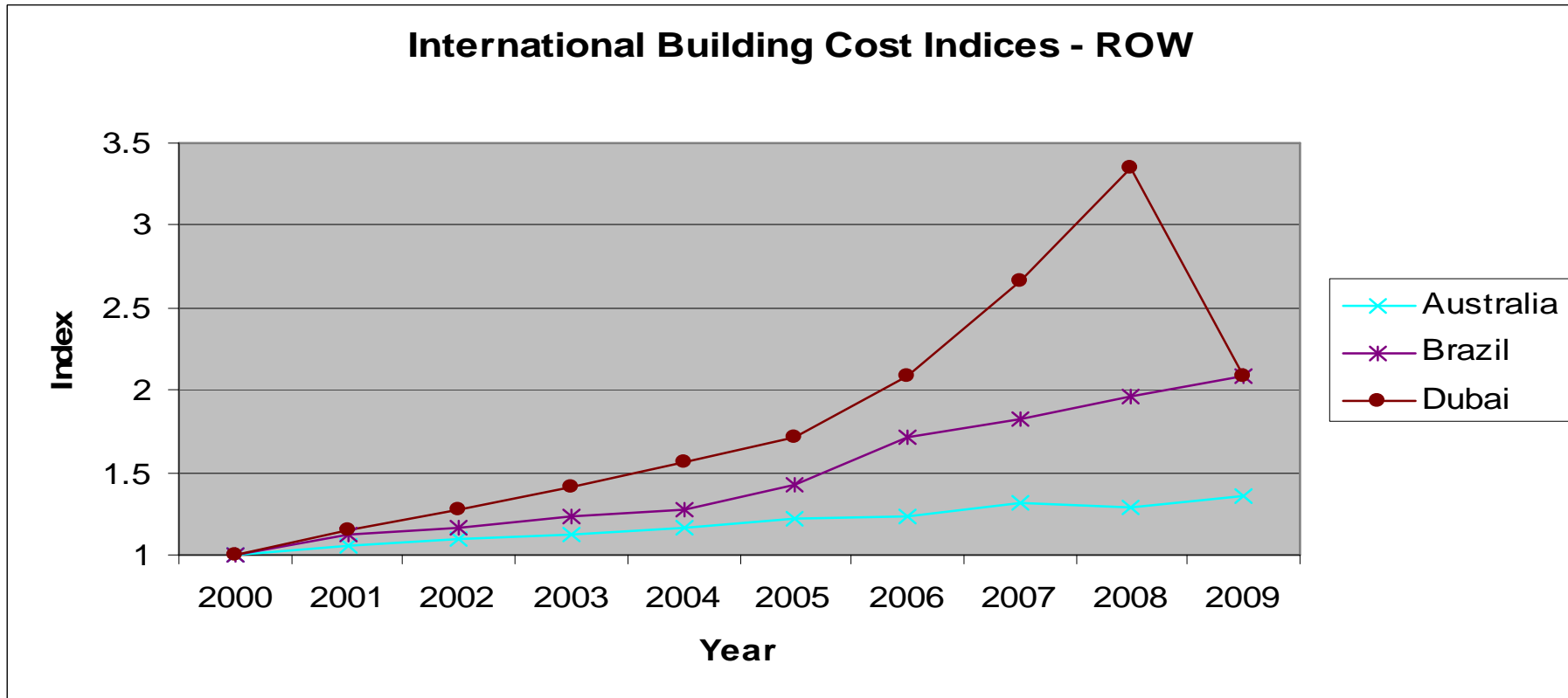
Sources cited:

- National Statistical Offices of the identified countries





Worldwide Cost Trends



Sources cited:

- National statistical Offices of the identified countries
- FM Global, Davis Langdon and Seah, EC Harris





Trending Fixed Asset Records



Trending Fixed Asset Records



- Identify insurable property
 - No land or site development costs
- Site improvements?
- Trends are not an absolute
- Fixed assets diverge from reality eventually
- Don't trend:
 - Used costs
 - Allocated costs
 - Internal transfer costs
- Renovations/Rebuilds





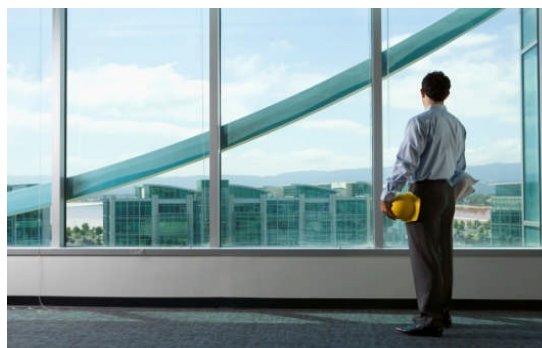
Trending Fixed Asset Records

- Expensed items
- Internationally sourced assets
- Transferred assets
- Allocate assets to individual buildings
- Property of others
- Offsite assets
- Don't trend longer than 7 to 10 years





Valuation Solutions



Appraisal Programmes



- Identification of high priority sites
 - Based on value
 - Risk profile
 - Degree of confidence in existing values
 - Sample sites by product
 - Sample sites by region
- Appraise specific number of sites per year
- Builds database for site comparison
- Update prior appraised sites by trending, limit 5 to 7 years



Appraisal Programmes



Appraisal Approaches include:

- Inspection and appraisal
 - Macro asset listing by site inspection
 - Detailed asset listing by comprehensive site inspection
- Modeling
 - Occupancy approach
 - Capacity approach
- Trending – recent costs can still be an accurate indicator of replacement costs if “appropriately indexed”
- Desk top analysis – review of existing data or recent projects,



Contact Information



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