

Engineering & Construction

“MEN BEHAVING BADLY”: HOW; WHY & WHAT NEXT



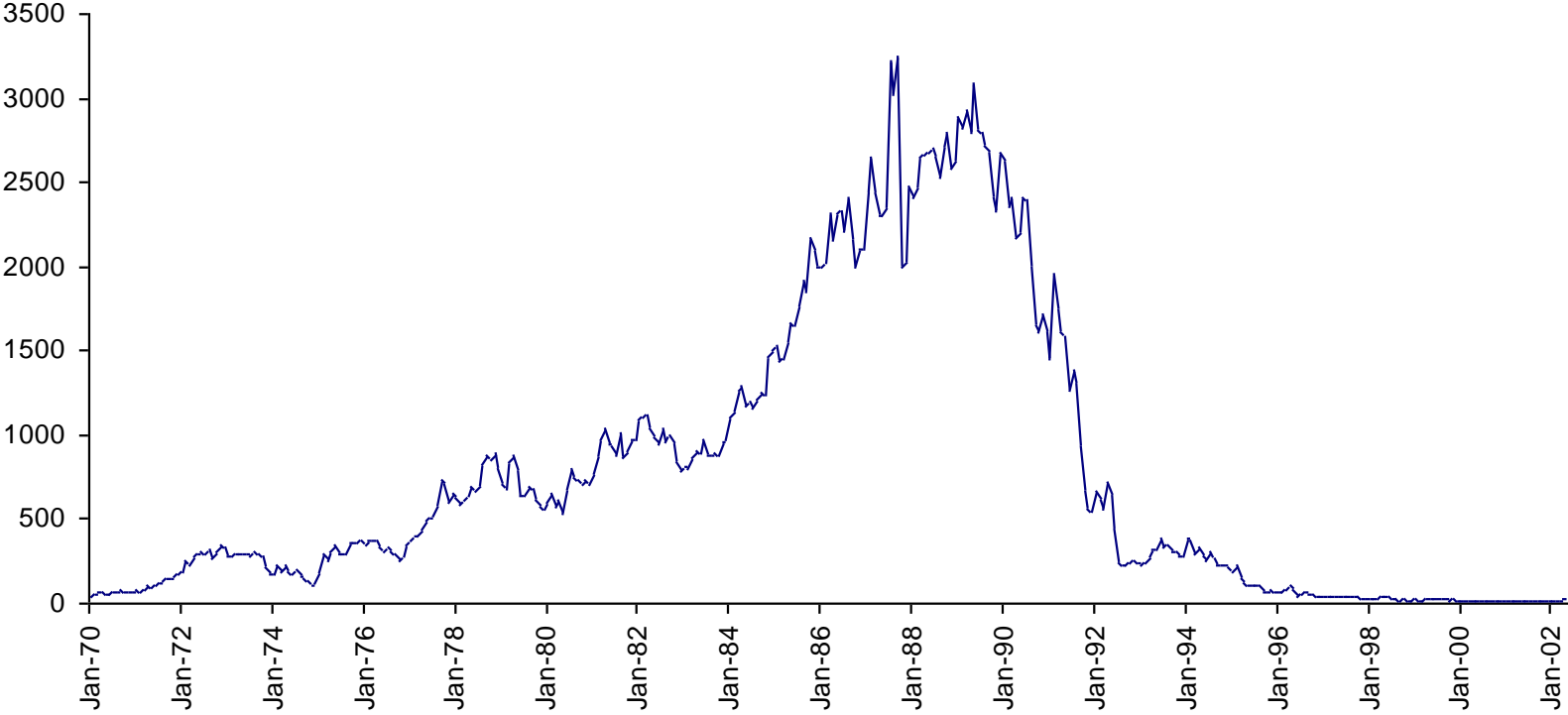
Tony Williams

BUILDING VALUE LTD

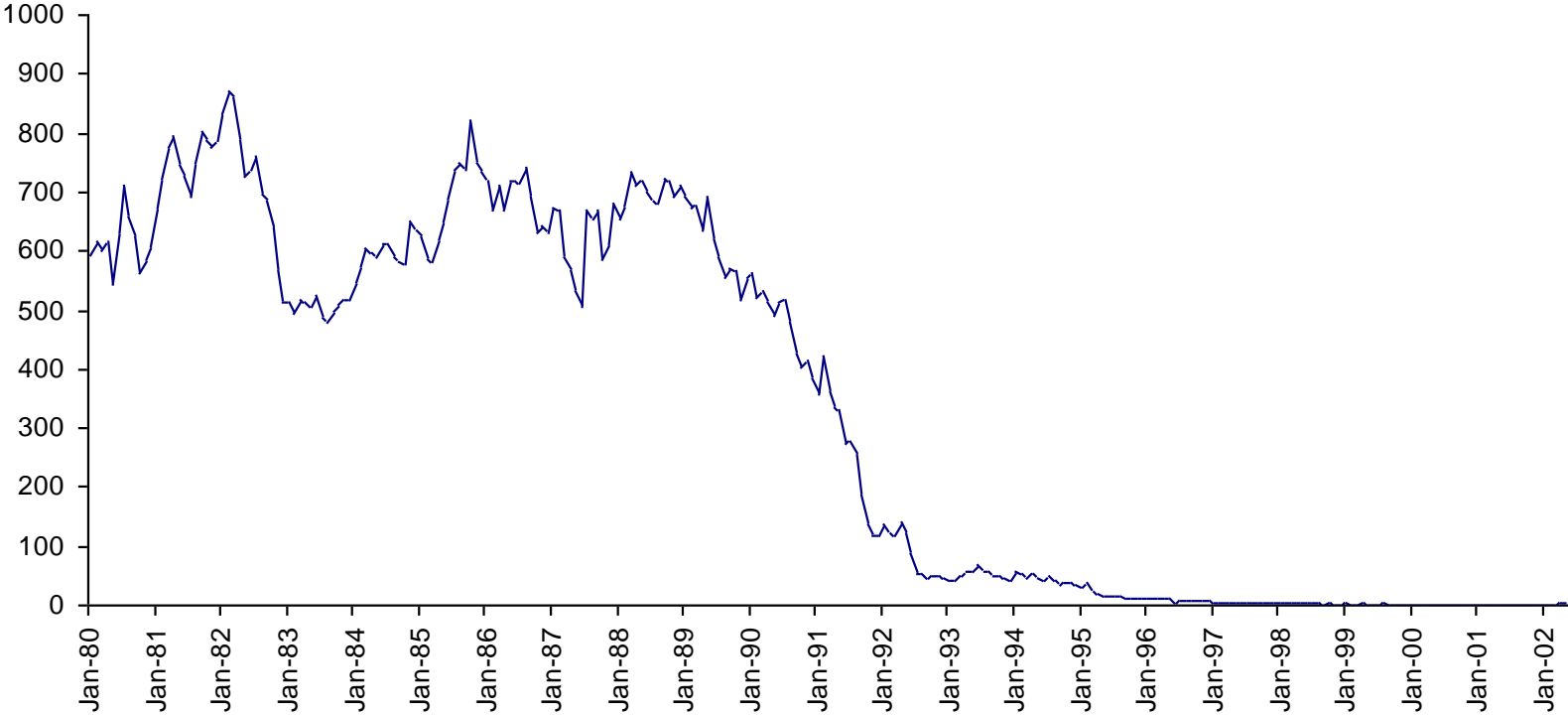
the independent strategic advisor to the
building materials, construction,
real estate & support services sectors

Euroconstruct, 7 June 2002

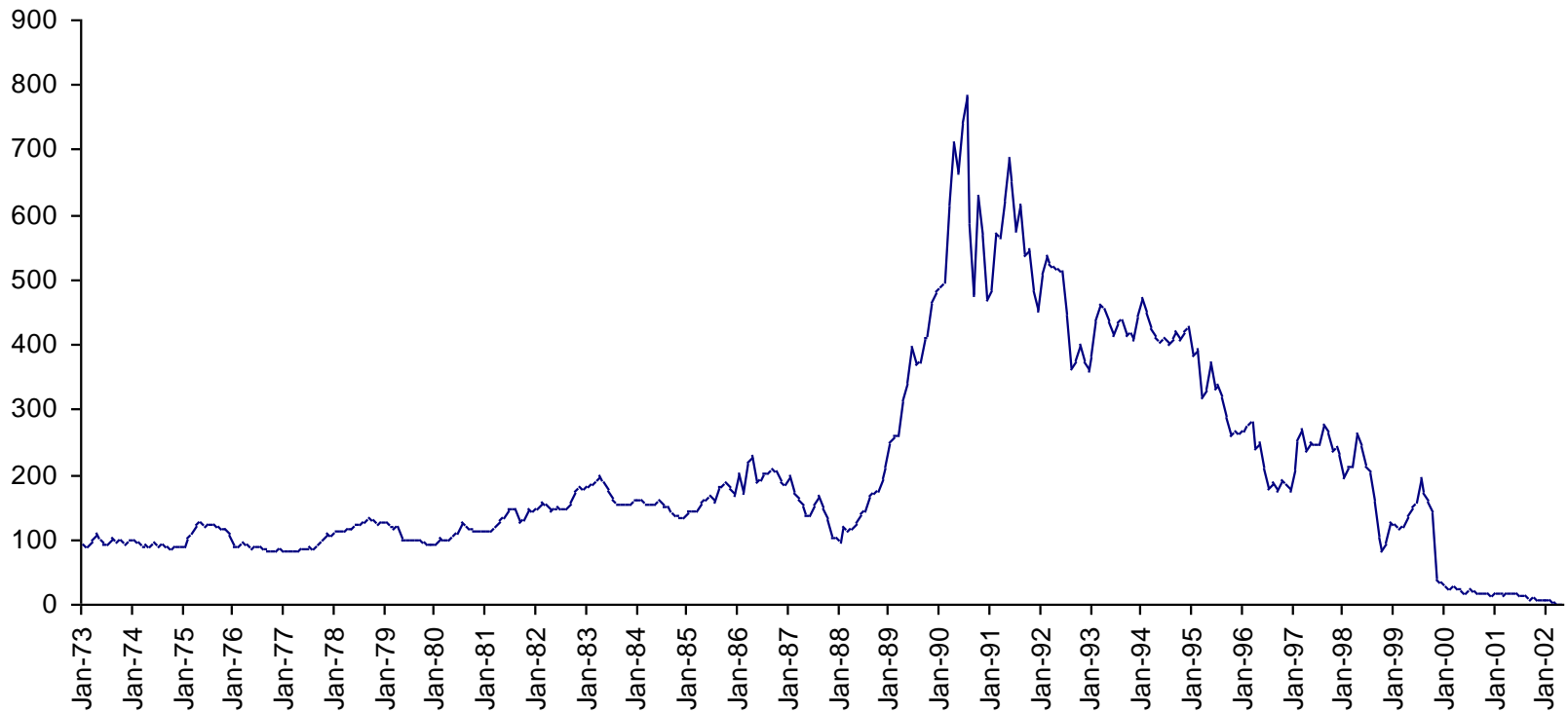
Costain since 1970



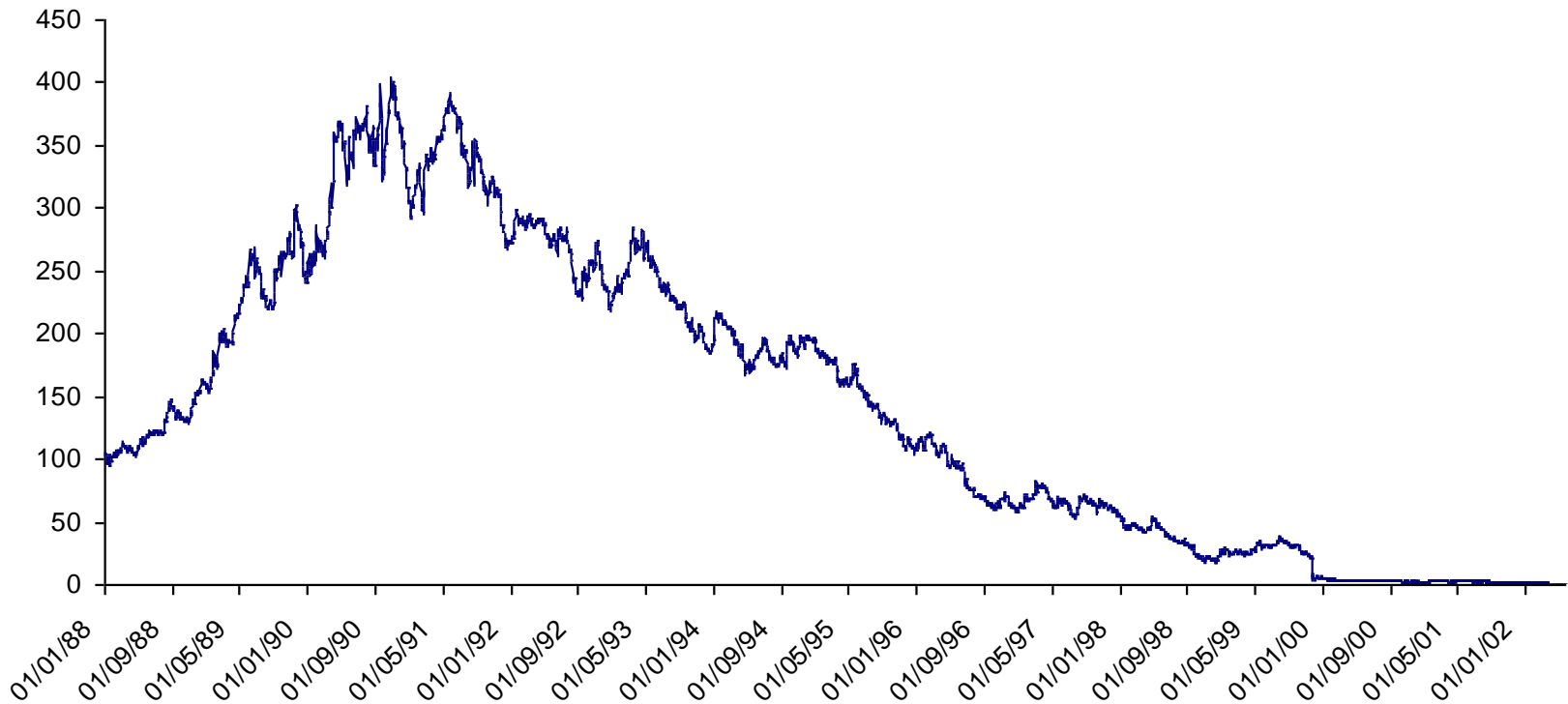
Costain relative to FTSE All Share since 1980



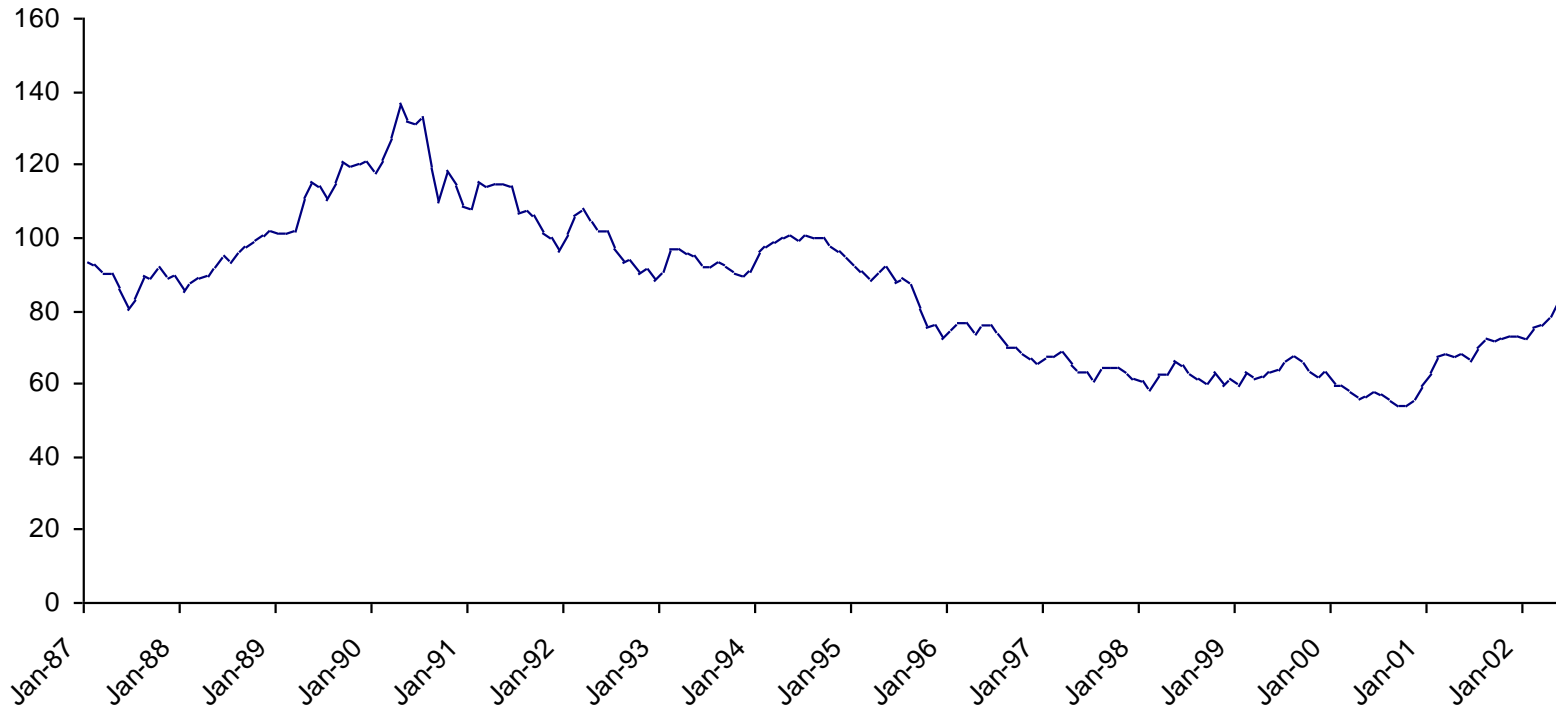
Philipp Holzmann since 1973



Holzmann relative to DAX 100 since 1988



DJ Euro Stoxx Construction relative to FTSE Euro Top 300 since 1987



UK case study of value destruction

- Take six UK E&C companies: AMEC; Gleeson; Alfred McAlpine; John Laing; Taylor Woodrow; & Tilbury Douglas
- From 1985 to 1998, this group of six saw total funds generated reach £5.3bn; including share issues and asset sales of c£1.8bn
- Pretax profits were 36% of this total at £1.9bn
- However, over the same period, there was a net cash outflow of £200m

Synonyms of Engineering & Construction (E&C)

build	contract	co-ordinate
create	edifice	erect (ion)
form (ation)	lay/make	manufacture
produce	put together	structure
subcontractor	top out	work

Alternative synonyms of E&C

b***tard	combatant	cowboy
cut-throat	high risk	know-it-all
itinerant	late	loss making
robbing (see top left)	ruthless	unkempt
unreliable	sexist	xenophobic

Modus operandi

- Cash is king
- Notorious ease of entry; hence over industry capacity
- Claims and provisions rule
- Negative capital employed predominates
- Profitability is mired in a 1-3% range

Modus operandi

- The risk:reward ratio is appalling
- Contractors are optimists by nature
- Losses are *de rigueur* e.g. one-in-six jobs
- Budgeting for a 1-3% margin is illusory
- The focus remains on contract flaws
- Corruption remains rife
- The industry is inefficient

Accounting

- Accounting is a 'black art'
- Turnover and profit in any one year unrelated; this makes a mockery of annual margins
- Opaque relationship between cash flow, profits and turnover
- Profit declaration variable; 'foreseeable losses' are subjective
- Bulk of profits weighted to contract end

Accounting

- Interest received is a key contributor to profits; pretax can be higher than EBIT
- Turnover and profit in any one year unrelated
- Provisions are headline on the way out – but when do they come back in?
- 'Over provisioning' is normal
- Bonding exposure remains a mystery

Acquisitions

- Work in progress is a 'moving target'
- Acquisition exit multiples are derisory; can be as low as 0.2x sale
- Buying a local unit is only way to compete in new geographical market
- Prime assets are people – who are mobile

Acquisitions

- Low returns are a driver of M&A
- Incipient rationalisation is evident; most recently HBG going to Dragados (itself now part of a three way merger)
- The death of the conglomerate is not exaggerated e.g. BICC, P&O, Skanska, Tarmac; Vinci
- Polarisation: super league vs niche players
- Avoid the medium sized 'killing fields'

Perception

- The industry is not profitable enough
- The quality of earnings stream is lamentable
- Investors do not understand it....
-nor do they want to
- E&C is not a 'must have' sector

Perception

- An average historic PER for the UK's finest E&C companies is 13.3x
- London's All Share Index PER = 23.4x
- Yet Construction is vital and one of Europe's largest industries; but is undervalued
- Industry skills are immense (albeit outside board room it is poorly paid)

Procurement

- Competitive tender is unsatisfactory and risky
- Cost of tendering is rising
- Different contract types: negotiated; CM; consortia; D&B; DBFO; JV; partnering etc
- One stop shopping/multi skills is vogue
- Industry is becoming client friendly
- Off-site prefabrication is growing

Dynamic client demand

- Sheer scale of current tasks is demanding
- This is especially true of infrastructure and fixed links
- Scale and spread of client reflects active M&A market in key industries: drugs;telecoms etc
- Cost/intensity of bidding; with no guarantees

Clients are no angels

- Governments face increasing budgetary constraints
- The State seeks to pass on the capital commitment and fund schemes out of revenue
- This takes the form Public Private Partnerships (PPP) and the Private Finance Initiative (PFI) in the UK

Clients are no angels

- Everyone's an expert on building
- Everyone loves to 'beat up' contractors
- Industry margins of 1-3%
- A modest concession could win immodest cooperation

Solution No. 1

- There are just too many of them:
 - take the same turnover
 - half the number of contractors
 - sector would double in value

Solution No. 2

- Pursuit of the 'holy grail' of reduced volatility
- Diversification of product offering; increasing services focus
- Recurring fee based income
- Increased trans-national push
- Risk management

Capital adequacy

- E&C is a perception/valuation conundrum
- Capital adequacy is a tool employed by the banking industry
- It relates loans to shareholders funds
- The loans are also risk weighted (being bank, however, these are 'assets')
- Capital adequacy measures the zeal, or otherwise, with which a bank pursues business
- ...and what can be paid out in an emergency

Capital adequacy

- A bank with shareholders funds of £100m and loans of £1bn has capital adequacy of 10%
- The Bank for International Settlement in Basel in Switzerland sets a minimum standard of 8%
- It is difficult to show how a contractor obtains a return on capital – given he is working (or should be) on negative capital employed

Capital adequacy

- A contractor, however, is like a bank
- He makes a large part of his return in assuming contractual obligations and holding cash
- Return on equity is, thus, an important measure
- The key ratio, however, is capital adequacy – the relationship between shareholders funds and company's total commitments

Capital adequacy

- Order book/back log details are now always forthcoming
- As a proxy, assume annual turnover is broadly equivalent to order book (although orders are generally greater than annual sales)
- This now represents contract obligations

Capital adequacy

- A sample of UK contractors produces an average capital adequacy of 7.5%
- However, the range is 5.5% to 8.8%
- Capital adequacy may not be a total solution; but it is a start
- In particular, it could be used to determine those companies who are over-trading

Capital adequacy

- E&C companies should be valued more as quasi bonds or utilities; rather than on a PER
- For example, fiscal year-ends are totally artificial for a busy contractor
- “A Path out of the Woods” is a seminal work on this subject written by Simon Goodfellow of ING Barings

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A case study

Risk catalyst

- Every E&C company knows about the principal approach to RM
- Initiation can spring from failure/disaster
- In its wake, questions are asked, causes identified and solutions proffered
- Indeed, a failure can be a powerful catalyst for a serious change in management

Audit, benchmark & Turnbull

- An audit of risk assessment
- It was modest, reactive & variable (with comparison impossible)
- Extra mural, best practice was benchmarked
- Plus external impetus, starting with Cadbury and, then, Turnbull
- However, company was well on the way, pre-Turnbull and, three years ago, employed external consultants

External help

- AEA Technology (Atomic Energy Association) was used as technical consultant; plus broker
- Leading implementation experts signed up
- Steven Male (value management) and Nigel Smith (risk management), both professors at University of Leeds
- Representatives from its main business areas appointed as 'champions'; not just 'top down'

Software

- 18 months into the process, an externally designed software package was rolled out
- Currently launching second version, on which company has had more impact
- Mark II is reckoned to be “one of the better construction based packages” and to afford a “marketing edge”

One size fits all

- In oil & power industries, RM is first class but standard
- A large contractor may have 1000 sites and in excess of 25,000 employees; its RM, needs to be flexible
- Application, however, must be homogeneous i.e. "one size fits all"
- A concise 'Group framework for RM' now exists, including, 'Uniform Risk Assessment'

Consensus & application

- Training of personnel is essential
- The strength of the process was to win consensus; “everyone has to be behind risk review”
- RM also needs to be applied to each stage of a bid: initial identification; pre-qualification; design; pricing; on site practice; and living with it (eg PFI facilities management for, say, 25 years)

Knowledge is the key

- The key to RM is knowledge and maximisation of information flow through life of the project
- It is also important to record what courses of action were rejected; and why
- On site, previously rejected ideas may be (re)considered; it is thus vital to know why they were shelved
- In the future, when a new project is planned, an empirical history of analysis and action exists i.e. a working register

Risk grading

- RM is now used almost everywhere in the company; and all major contracts are required to use it
- This includes generic risk assessment, where appropriate e.g. repetitive tasks
- The process can also be quantified with the Risk Grading Tool via a 10-15 minute electronic menu

What it looks at

- This encompasses a number of formal stages, involving the identification, definition and assessment of:
 - business or project objectives
 - relevant risks according to nature, causes or sources and consequences
 - likelihood

Risk categories

- Key headings of analysis (comprising some 80 separate risks) are:
 - Client
 - Contractual
 - Resource
 - Design
 - Regulations
 - Financial/commercial
 - Scope of work/location/technical difficulty
 - Compliance: Health & Safety, legal etc

Colour coded risk

- The output is a matrix on which all principal risks are plotted
- The Y axis registers consequences, while X caters for likelihood
- The matrix is colour coded like a rainbow

Colour approval

- The extreme top right is **Red** (i.e. “no)
- Top right quadrant is **Orange**, which can commence with appropriate authorisation
- The middle is **Yellow**, which is OK and appropriate arrangements already exist or will be developed at the relevant stage
- Bottom left is **Green** (i.e. “yes”), where appropriate, normal monitoring and review procedures are in place

Quantitative risk

- A total numerical risk score is also calculated, plus individual category risk scores (1-5)
- Numerically, if a score is less than 25 and there is no individual risk greater than 5, the risk is low and the project is a 'go'
- Conversely, with 25+ and a number of '5s', it is rejected

Mitigation of risk

- Identification of controls and action plan
- Steps are taken to:
 - avoid the risk altogether
 - reduce the opportunity for risk to occur
 - reduce the impact of risk if it occurs
- However, system allows risks to be analysed and mitigated eg changes to design etc
- Mitigation reduces likelihood/severity of risk

Focus on risk & its cause

- All risk needs to be identified but the company also needs to win work
- Once a risk has been converted into a value, “do not lose sight of what is behind it”
- The focus must be on the risk and its cause; not, simply, the financial impact

Conclusion

- We cannot do without Engineering & Construction
- There is a recognition that it has to change
- Disclosure should be more like banks
- Industry needs to proactively manage risk
- Risk management in E&C is no longer an oxymoron

“If you take no risks, you will suffer no defeats.

But if you take no risks, you will win no victories”

R M Nixon (1913-94)

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