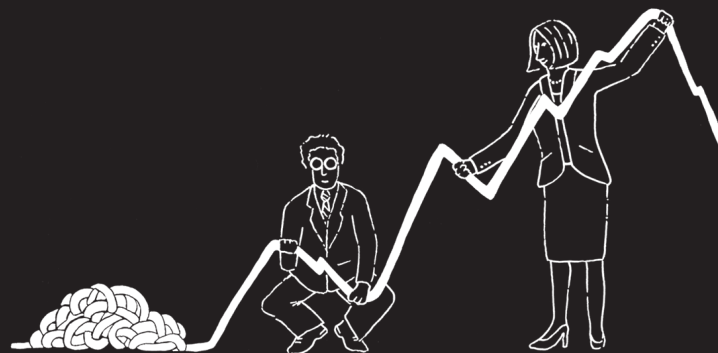


ceg

COMPETITION  
DISPUTES  
REGULATION

Asia-Pacific | Europe | North America

# Quantitative Finance Practice



# CEG experts provide quantitative analysis of complex financial and energy products in support of disputes and other key decisions.

To address an increasingly complex financial management, dispute and regulatory landscape, CEG has brought together experts in financial products; with previous investment banking, commodity, hedge fund and financial modelling backgrounds. This, in combination with experience of providing expert evidence, both in the form of an expert report and an expert testimony, create the Quantitative Finance practice.

CEG Quantitative Finance practice has the experience and capability to:

- Address complex issues for disputes and litigation purposes
- Provide valuation and risk management analysis to support key decisions

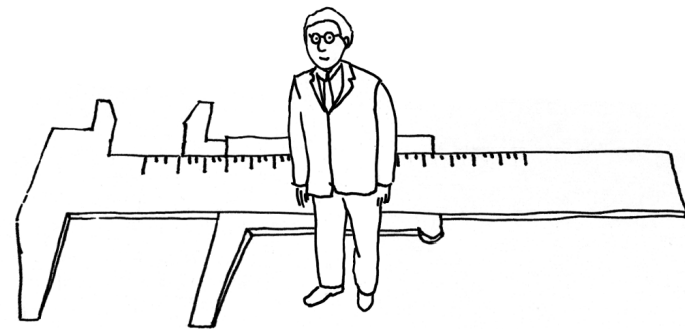
CEG's Quantitative Finance professionals employ complex financial engineering, modelling techniques, valuation skills and market acumen in orders to address and solve their clients' problems across the globe. CEG uses and applies sophisticated mathematical techniques such as analytical, numerical analysis and simulation in order to support clients.

In recent years, CEG Quantitative Finance professionals have worked with major law firms, regulators, financial institutions and other corporates to deliver the required solutions.

Our practice comprises skilled professionals with many years industry experience in research, valuations, trading and risk management. CEG's Quantitative Finance team have the capability to address a broad range of asset classes, ranging from plain vanilla securities to complex derivatives. Asset classes covered include:

- Alternative Investments – Private Equity, Hedge Funds, Infrastructure and Fund of Funds
- Equities
- Energy and Commodities
- Credit and Fixed Income
- Foreign Exchange
- Interest Rates

CEG continues to provide independent and robust analysis to support its expert testimony in national courts or international arbitration tribunals, while also supporting corporate decision making around transactions and risk management.



# Disputes & Investigations

CEG continues to provide independent and robust analysis to support its expert testimony in national courts or international arbitration tribunals. Our primary focus has been to provide such services in the financial services and energy sectors, where clients face various issues of a very complex nature.

CEG's quantitative finance professionals not only assist such clients and their attorneys but also regulators and competitive authorities when conducting investigations, such as ones into rogue trading or market manipulation.

We always aim to bring the right resources that include top affiliates

to ensure that we deliver a quality and impartial service.

We pride ourselves on the fact that our work stands up to the scrutiny of national courts, international tribunals, and regulatory bodies.

## REPRESENTATIVE ENGAGEMENTS

- Arbitration proceedings where bondholders of a failed European bank are taking action against a European government for its alleged regulatory non-intervention to save the ailing bank
- Expert advice in arbitration case relating to a joint venture dispute in a European consumer credit business between two parties

- Assisted lawyers to assess the case merits relating to breach of warranties in the contexts of a fund of hedge funds transaction
- Testifying expertise in an arbitration case Switzerland around exotic interest rate and forex products. Quantum of claim was \$1.5 billion
- Expert advisory services in a large litigation case where the plaintiff, a global Investment Bank sued an Investment Fund, the client, to recover approximately USD 250 million due principally in respect of amounts owed on the closing out of derivative positions following unmet margin calls

# Disputes & Investigations

## REPRESENTATIVE ENGAGEMENTS

- Provided expert advice for a global investment bank that is alleged to have been mis-booking and entering into a number of unauthorised forex transactions for a private client
- Investigation into the sale of a multi-billion portfolio of complex Forex hedging instruments to a Middle Eastern corporate in order to advise the corporate on the appropriate unwind mechanism for the hedges and start proceedings against the banks responsible for mis-selling these products
- Investigation of a global asset manager in London into rogue trading activities performed by two of its traders
- Expert report with respect to alleged insider share trading by a number of parties in the Middle East in response to a regulatory investigation
- Valuation of sulphur mines in Russia as part of a dispute
- Advised a Turkish power in an arbitration case relating to a power purchasing contract

# Valuation

CEG's Quantitative Finance practice advises clients in several critical and important valuation situations, such as:

- Securities' transactions
- Portfolio valuation
- Energy and commodity valuation
- Financial and regulatory reporting
- Valuation governance and control reviews
- Valuation of incentive schemes

Our experts have in-depth knowledge and experience in:

- Valuing complex financial and commodity instruments
- Equity and corporate valuations

- Valuations for regulatory and capital requirements
- Access to market-leading databases
- Quantitative modelling and programming languages
- Structuring and trading

Increased regulation, volatile markets and greater scrutiny on the valuation of assets have contributed to a requirement for greater transparency and accountability in the financial services sector. CEG are able to offer help in meeting these financial requirements. We understand that valuation is not just an accounting or regulatory requirement but also necessary for managing the business and the associated risks.

The Quantitative Finance team has access to software packages and programme languages, as well as market-leading databases that allow us to value not just single securities but portfolios of assets. We understand that for each bespoke situation, the valuation approach needs to be reflective of the underlying characteristics and meet the purpose of the exercise.

We also assist clients in ensuring that the valuation is performed independently and following "best practice". We can review and analyse the valuation and control processes that are in place, testing their effectiveness and consistency.

# Valuation

Another area that we support clients is in relation to both assisting with the structuring and providing the valuation of management or employee incentive schemes. We can ensure that the right performance targets are in place and value these schemes irrespective of complexity. We have experience in working with lawyers drafting such contracts and can prepare valuations for both reporting and tax purposes.

## REPRESENTATIVE ENGAGEMENTS

### *Securities and Portfolio Valuation*

- Advised a European Banking group on the acquisition of a number of smaller banks and distressed loan portfolios collateralised through real estate assets. Provided advice relating to the impact on risk weighted assets, capital adequacy and liquidity of the bank as a result of the acquisitions and portfolio restructuring
- Advised a large Japanese bank on the disposal of various loan portfolios and portfolios of structured products (CDOs, CLO's, RMBS and CMBS) to a Japanese asset manager

- Advised EC DG Comp on the implementation of the Asset Relief Programme for troubled banks in Europe

- Portfolio valuation of a fund of hedge funds in Switzerland

### *Energy and Commodities Valuation*

- Valuation of embedded derivatives in gas contracts with regard to an acquisition of a US energy group
- Valuation of an acquisition of a mining group by a large global mining player
- Valuation of a number of power plants for restructuring purposes in emerging markets

# Valuation

## *Energy and Commodities Valuation*

- Valuation of gas fields in Africa for a major Asian group
- Providing advice on the valuation of LNG contracts
- Advised a fund investing in commodity assets; either through unleveraged, direct investments or through leveraged contracts with exotic and complex payoffs, such as embedded optionality or contingent cashflows
- Performed quarterly valuations for a major US hedge fund with regards to their commodity exposure (including metals, biofuels and energy assets) for financial reporting purposes

## *Incentive Schemes*

- Structuring and valuation of compensation structure for a European hedge fund to incentivise managers. This included devising appropriate performance measures tied to the fund's strategy
- Valuation of securities in a complex capital structure for a management incentive scheme in a car park network in the UK
- Valuation of incentive schemes for several FTSE 100 companies to comply with IFRS2
- Adviser to a global investment management company to value restricted share units (RSUs) in the context of a tax filing to HM Revenues & Customs
- Structuring and valuation of a complex compensation structure for a European hedge fund to incentivise managers
- Valuation of management incentive schemes for several US hedge and private equity funds to meet reporting and IRS requirements



# Risk Management

Our Quantitative Finance team can provide you with:

- Modelling and derivation of risk metrics and hedging strategies
- Greater Fair Value pricing for your transaction or across your portfolio
- The highest level of transparency, enabling you to comply with required accounting, auditing and regulatory requirements
- Cost effective solutions without compromising on quality
- Independent, conflict free advice as to whether your hedging strategy works

We can assist clients in developing their risk management frameworks. As such, we provide our clients with

robust advice as to how they should quantify, monitor, manage and hedge their risk exposures. If clients already have a framework in place, we can assist them in assessing the hedge effectiveness of their commodity, currency and interest rate risk.

In addition, we can provide clients with fundamental and quantitative modelling services in different environments and programming languages. We not only can build, but also validate bespoke models that are suitable to value a security or a portfolio of securities.

We support our clients in a variety of ways to measure and ensure that appropriate returns and assessment of risks are generated by their respective businesses.

Our Cost of Capital offering ensures that risk is measured appropriately to compensate investors. This considers the geography, underlying currency, industry and financing structure. Only by considering these factors, we ensure that the appropriate returns benchmark is generated.

The Cost of Capital is a fundamental aspect of corporate finance, as companies need to ensure that this required return is met for a project or transaction to be value generating. We advise clients in several geographies and industries on their Cost of Capital. We also support their regulatory analyses to ensure that their estimates are robust enough to pass the acid test of their respective regulator.

# Risk Management

## REPRESENTATIVE ENGAGEMENTS

- Model Validation for a North American Pension fund with £80 billion AUM
- Advised a large UK insurance group on risk measurement and management of a major stock lending transaction
- For a large UK hedge fund advised the CIO and COO on issues relating to investment strategies and risk mitigation
- Advised a food company producing crisps to hedge their exposure to production ingredients such as sunflower oil and plastics
- Model build of a portfolio of clean energy assets in Europe and the US
- Model validation of embedded derivatives for an energy distribution group in the UK
- Model validation of a European forex exchange
- Cost of Capital and performance analysis for a global energy player across three business lines: generation, transmission and telecoms, for forty different jurisdictions
- Cost of Capital analysis for asset acquisitions in a number of developing countries for a number of oil majors
- Cost of Capital analysis for an energy group restructuring its power generation and transmission portfolio in emerging markets
- Advised a bulge bracket investment bank of the Cost of Capital attributable to its various divisions after a merger
- Cost of Capital analysis for an investment manager with stakes in railway projects, motorway operations and real estate in five different geographies
- Advised a FTSE 100 company in the packaging business of the Cost of Capital required for a number of acquisitions in various geographies
- Cost of Capital for several telecom, power generators and water companies in the UK as part of their regulatory reviews

# CEG brings together experts in the leading competition and regulatory agencies, academia and industry

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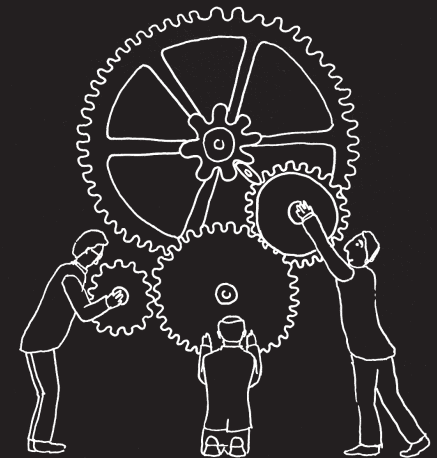
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