In the period after the recent financial crisis, capital markets firms face the twin challenge of driving innovation and growth while simultaneously meeting new regulatory requirements. Achieving growth in response to pent-up client demand requires continuous innovation in financial products and ever-higher client service levels; while regulatory compliance demands changes to operations and reporting, coupled with high level of transparency to understand the impact on financial performance and risk.

Capgemini’s Capital Markets Practice focuses on these issues holistically and, in collaboration with our industry alliances, offers our clients solutions that span process, data, and technology.

Market Focus
Capgemini’s Capital Markets Practice has deep industry experience, demonstrated globally through engagements with demanding, complex delivery. Our industry focus is primarily on Trade Life Cycle Management, Wealth Management, Asset Management, and Risk & Compliance, with a core competency in Data Management underlying all four areas.

“More than two years after the collapse of Lehman Brothers sparked the credit crisis, capital markets continue to experience both highs and lows. But with an IT priority list dominated by compliance projects, firms will be challenged to balance regulatory demands with business goals. In order to achieve both, CIOs will turn to a number of emerging and maturing technologies.”

Wall Street & Technology, December 2010
Trade Life Cycle Management

Trade life cycle management is changing swiftly and dramatically. Products and trading strategies continue to evolve, as do regulations. For OTC derivatives in the US mandates to use clearing central counterparties (CCPs) and swap execution facilities (SEFs) require changes in business process and operations—including collateral management, reconciliations, risk, and reporting—along with updating or replacing the supporting technologies.

Experience
Capgemini brings operational experience in all aspects of trade life cycle management from execution onward, including order management, position management, collateral management, reconciliations, clearing & settlement, corporate actions, and reference data. In combination with our deep technology expertise, we can organize and manage an integrated program to coordinate and help execute the multiple dimensions of these changes. Our solutions in this space are complemented by our Centers of Excellence in offerings from our vendor alliances.

Capgemini has rich experience in building bespoke post-trade solutions for fixed income, equities, derivatives (FX, IR and Credit), and treasury functions, including reconciliations, collateral Management, and corporation actions.
Figure 1: Capgemini Trade Hub manages trade flows with Clearing Central Counterparts and Swap Execution Facilities

Corporate Actions
- Benchmark against peers and industry best practice
- Monitor operations, evaluate workflows, measure quality & standards adherence
- Manage standards conversion (15022/XBRL/20022)

Accelerators
Process Optimization
- Competitive assessment
- User experience definition
- Business process re-design
- Gap analysis
- Business case development
- Change management strategy and coordination

Data Expertise
- Data strategy
- Data architecture
- Data lineage, rationalization and consolidation

Technology Depth
- Trade Hub Framework for derivatives
- Application architecture evaluation & design
- Platform selection
- Application rationalization
- Package configuration and customization
- Interface Specification

Testing Frameworks
- Complete FIX Protocol Testing Accelerator
- SWIFT testing solution Calypso test Accelerator
- OMS (Order Management System) Test Accelerators

Vendor Alliances
- Alliances with Calypso, Murex, Asset Control, Thunderhead, SmartStream, and Anshinsoft

Solutions
OTC Derivatives Clearing
- Clearinghouse connectivity
- Clearing Trade Hub

Prime Brokerage Services
- Client servicing & portal
- Portfolio accounting & performance reporting
- Securities Lending

Collateral Management
- Integrated cross-asset collateral management strategy
- Profile and manage collateral risk
- Implement an enterprise-wide collateral management framework
- Integrate collateral and liquidity management

Reconciliations
- Optimize break-handling processes
- Automate, where possible, with a reconciliation utility
- Re-engineer trade flow from front to back

Capgemini Capital Markets
Wealth Management

The financial crisis has had a profound impact on high net worth (HNW) client behavior and wealth management firms’ top and bottom lines. In light of these challenges, Capgemini focuses on helping wealth management firms drive increased profitability as well as advisor and client acquisition and retention.

Capgemini helps wealth managers innovate and grow by delivering an improved client and advisor experience across the various wealth segments. We specialize in driving increased productivity by optimizing existing platform investments or helping firms to implement next-generation solutions. We can help drive up to 30 percent productivity gains. Key areas of workflow optimization include streamlining client on-boarding, optimizing the client relationship review process, and integrated portfolio and risk management solutions.

Experience
Capgemini’s integrated solutions focus on delivering consistent, multi-channel service across wealth segments.

Our in-depth experience in enriching advisor workstation tools and technology helps firms improve advisor productivity, retain existing advisors and attract new business.

Our deep experience in client service needs and technology platforms allows firms to better understand client cross-sell opportunities, significantly increase client retention and reduce overall servicing costs.

Solutions
Adviser Workstation
- Advisor experience and productivity competitor benchmarking
- Advisor workstation strategy, business case, roadmap and implementation
- Build versus Buy Analysis Tool
- Data strategy
- Merger integration
- Social media integration

Client Experience: Online and Reporting
- Client experience competitor benchmarking
- Client portal and reporting strategy, business case, roadmap and implementation

Client Experience Reporting
- Participant and sponsor portal competitor benchmarking
- Participant and sponsor portal strategy, business case, roadmap and implementation

Accelerators
Process Expertise
- In-depth experience of advisor needs and priorities by wealth management practice orientation
- In-depth experience of client needs by wealth segment
- Database of competitive offerings
- Benchmark data for over 30 wealth management firms
- Business and functional requirements and use cases
- Build versus Buy Analysis Tool

Technology Depth
- Wealth management information architecture reference model
- Technical architecture frameworks
- Technical specification frameworks and templates
- Integrated testing methodology and templates

Vendor Alliances
- Capgemini is a strategic implementation partner for Temenos for their Wealth Manager and T24 solutions
Emerging from the downturn, asset managers are eager to focus on forward-looking initiatives, including re-tooling the investment management process and developing new businesses to catch the next wave of growth. With investors decidedly shifting away from products and toward relationships, one area of innovation is new types of real-time predictive analytics solutions to help build stronger ties with clients.

Experience
Capgemini has deep domain experience in asset management. We have implemented fund accounting and portfolio accounting solutions for a wide array of investment vehicles and fund structures, as well as integrated Web portals for accounting, custody, compliance, and performance measurement. Our consulting experience and solutions cover comprehensive understanding of complex products and operational processes. Our team has in-depth knowledge and experience in analyzing, defining and implementing complete in sourced and outsourced global operating models.

Our team leverages its extensive experience servicing asset managers and strong relationships with vendors and service providers, creating a highly effective collaborative approach to service delivery, resulting in a proven service delivery framework.

We have strong expertise in the areas of security trade capture & automation, including SWIFT transmission solutions, and in the asset and market data space.

Solutions

**Strategic Assessments & Planning**
- Technology, operations, vendor selection
- System implementation strategy & planning

**Domain-Specific Strategy**
Current state analysis, future state planning and roadmap for
- Fund accounting
- Fund administration
- Transfer agency services
- Alternative assets
- Data management

**Operating Model**
- Global and domestic operating model design & planning
- Process mapping & reengineering
- Operational excellence

**Asset Management Systems**
- IT assessments
- Application and infrastructure planning and rationalization
- Business Requirements and Analysis

**Full Life Cycle Implementation Services**
- Configuration, implementation, integration, & testing

Accelerators

**Process Expertise**
- Decision support & trading: portfolio management, analytics, trading, & execution management
- Fund administration: post trade compliance, fund accounting, reconciliation, performance, measurement, confirmation, & settlement
- Data management & reporting: client reporting, data providers, data warehousing, management reporting, & data migration
- Asset servicing: securities, operations, transfer agency, fund administration, & settlement

**Data Expertise**
- Performance: rates of return, attribution, & composites
- Risk & compliance: market risk, regulatory reporting, & compliance monitoring
- Analytics: predictive market risk, asset liability risk, benchmarking, & revenue forecasting
- Fund accounting: NAV, security master, account master, GL, cash flow, audit, reconciliation, fixed income, equity, & custody
- Fund administration: asset & liability statements, statement of operations, balance sheet, income statement, annual reports, portfolio holdings, & EDGAR filings

**Technology Strength**
- Centers of Excellence in commercial asset management products and data management

**Vendor Alliances**
- Capgemini has established working relationships with numerous asset management vendors. Through these we have extensive knowledge of the systems and leading implementation approaches
Risk & Compliance

For most large financial institutions, developing an enterprise risk management capability is a regulatory imperative—whether driven by Basel II, new Basel III guidance, or Basel IA requirements in development. However, the most successful institutions are also realizing the competitive advantages of aggregating risk information and developing risk models that promote a true “risk versus return” approach:

- More profitable and effective pricing
- More efficient capital allocation
- More active management of the loan portfolio
- Cost savings through the retirement of isolated databases and manual processes
- Reduced dependency and reliance on legacy systems and individual contributors

Enterprise risk management has always been inherently difficult, as no single database typically houses all risk-related data. Many institutions spend hundreds of hours manually synthesizing data from reports, file extracts, spreadsheets and other sources—time better spent actually doing risk analysis.

Experience
Capgemini, in conjunction with vendor alliances, has developed Sigma Map™ Enterprise Risk Framework for institutions looking to proactively manage risk across the enterprise. Our solution is a comprehensive set of templates, tools and models that address common risk challenges and help firms both reduce the costs and speed the implementation of a risk monitoring and reporting solution. The Capgemini Sigma Map™ framework represents our significant experience in risk measures, risk models, risk reporting, risk technology infrastructure, and risk literacy & organization.

Solutions
Risk Measurement
- Credit risk: economic capital
- Market risk
- Integrating market and credit risk
- Operational risk
- Vendor model evaluation
- Contagion risk
- Stress testing

Risk Modeling
- Scorecards
- Risk-Adjusted Return on Capital (RAROC)
- Model validation

Regulatory & Compliance
- Basel II
- OATS (Order Audit Trail System)/Reg NMS (Regulation National Market System)
- Dodd Frank
- Exchange reporting

Accelerators
Sigma Map™
- Map risk types to balance sheet
- Operationalize Sigma Map™
- Measure maturity of risk management

Process Expertise
- Book and organizational hierarchy: single hierarchy handles data quality exceptions in real time
- Stress test framework: common infrastructure automates stress testing, support multi factor and complex models
- Risk weighted asset optimization: eliminates operational risk, identifies data breaks, tracks & audits changes, improves reporting & analysis

Figure 2: Levels of risk for assets, liabilities and equity

<table>
<thead>
<tr>
<th>Balance Sheet</th>
<th>Credit Risk</th>
<th>Market Risk</th>
<th>Operational Risk</th>
<th>Contagion Risk</th>
<th>Liquidity Risk</th>
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Equity is affected by all types of risks which would in turn affect your assets and liabilities.
Data Management

High Quality Reference data plays a key role in enabling STP and is the backbone of risk management, regulatory reporting, analytics and many more functions across front-to-back office within an organization. The financial services industry has been relentlessly struggling to find solutions to create and maintain clean and controlled version of reference data which has been plagued with the following top six issues:

- **Decentralized data management:** leading to low leverage of data assets
- **Security master inadequacies:** gaps in coverage, gaps in content
- **Data quality, lineage and traceability issues**
- **Data security and auditability**
- **Scarce resources:** lack of trained people
- **Differing data requirements** from downstream users

**Experience**

Equipped with unparalleled expertise in areas of capital markets, insurance and banking with specialization in Master Data Management, Customer Analytics, Risk Management, Capgemini has implemented solutions for various clients facing one or more of the above challenges:

- Provide point solutions for market data quality using Asset Control
- An enterprise-wide single version of truth for all reference data across all asset classes
- Build Central Party & Instrument solution for creating an enterprise wide single party and instrument view
- Create central data warehouse & marts to enable regulatory compliance & reporting; support customer master data management to enable performance and analytics

**Solutions**

Capgemini provides best-of-breed solutions with the help of accelerators, and vendor alliances.

**Container**

- Provide local control to clients to acquire, enrich, manage and distribute data
- Combine views of reference data, market data, client counterparty data, corporate actions, and security-specific news from an outsourced managed service provider and other internal systems

**Utilities**

- Provide aggregated and reconciled view of instruments at the attribute level, powered with generic data quality rules applied on all incoming data to maintain high data quality

**Cross Symbology**

- Cross-link securities from multiple data vendors, exchanges and internal systems, based on source- & asset-specific business rules, customized by client

- Allow clients to use a single identifier to request content from multiple sources for use with downstream systems

**Accelerators**

**Process Expertise**

- The Securities Data Maturity Framework focuses on the drivers behind the downstream business processes as the key alignment principles for managing data content and distribution rules

**Technology Depth**

- Data warehousing solutions
- Metadata Framework
- Taxonomy Framework

**Frameworks**

- Data Quality Framework
- Data Management Framework
- Data Governance Framework

**Vendor Alliances**

- Alliances with Asset Control, SmartStream, Anshinsoft, and PolarLake, Informatica, and Cadis

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**Figure 3: Process improvements, data transformation, and operations workflow improvements**

- **Defined Focus:** Critical Functional
  - Equities
  - Fixed Income
  - Derivatives
  - Structured Products
  - Loans/Lines of Credit

- **Define Data Requirements**
  - Define Process Requirements
  - Refine Data Integration Strategy
  - Refine Data Integration Characteristics
  - Refine Data Workflow Strategy
  - Identify Data Workflow Requirements

- **Reference Data**
  - Reference Identifiers (Internal and External/Vendor)
  - Client, Counterparty, Hierarchies
  - Reference and Market Data
  - Accounts and Custodial Information

- **Output**
  - Data Quality Strategy
  - Nomenclature and Quality Rules
  - Data Stewardship Strategy

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**Defined Focus:** Critical Functional
### About Capgemini and the Collaborative Business Experience

Capgemini, one of the world's foremost providers of consulting, technology and outsourcing services, enables its clients to transform and perform through technologies.

Capgemini provides its clients with insights and capabilities that boost their freedom to achieve superior results through a unique way of working, the Collaborative Business Experience™.

The Group relies on its global delivery model called Rightshore®, which aims to get the right balance of the best talent from multiple locations, working as one team to create and deliver the optimum solution for clients.

Present in 40 countries, Capgemini reported 2010 global revenues of EUR 8.7 billion and employs around 110,000 people worldwide.

Capgemini’s Global Financial Services Business Unit brings deep industry experience, innovative service offerings and next generation global delivery to serve the financial services industry.

With a network of 17,000 professionals serving over 900 clients worldwide, Capgemini collaborates with leading banks, insurers and capital market companies to deliver business and IT solutions and thought leadership which create tangible value.

For more information please visit [www.capgemini.com/financialservices](http://www.capgemini.com/financialservices)

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Visit [www.capgemini.com/capitalmarkets](http://www.capgemini.com/capitalmarkets) to learn more about our solutions.

Contact us directly by sending an e-mail to capitalmarkets@capgemini.com