

# Pricing and Risk Working Group

## 1. Group Charter

<b>Title of Working Group</b>	FpML Pricing and Risk Working Group
<b>Chair of Working Group</b>	Brian Lynn (Global Electronic Markets)
<b>Mission:</b> Extend FpML to create a cross-product framework for supporting pricing/valuation and market and credit risk reporting.	
<b>Scope:</b> <ul style="list-style-type: none"> <li>• The functional scope of the working group will be as follows:           <ol style="list-style-type: none"> <li>1. Define a cross-asset mechanism for reporting financial derivative asset values, at a trade and an aggregate (portfolio) level.</li> <li>2. Define a cross-asset mechanism for reporting financial derivative price sensitivity (market risk) to a variety of input variables.</li> <li>3. Define a cross-asset mechanism for recording and transmitting market input variables needed to price a derivatives trade.</li> <li>4. Development of documentation and examples to support the above.</li> </ol> </li> <li>• The product scope/priorities for the group will be as follows (in priority order) :</li> <li>• Phase I – basic risk on standard products           <ol style="list-style-type: none"> <li>1. 1. Vanilla IR Swaps (single and dual currency fix/float swaps, non-CMS/CMT)               <ol style="list-style-type: none"> <li>1. a. Valuation reporting (trades only)</li> <li>2. b. Market Data (Yield Curves, FX spot rates)</li> <li>3. c. Market risk reporting (Delta Risk vs. Curve Inputs, FX exposures) for trades</li> </ol> </li> <li>2. 2. Credit Default Swaps               <ol style="list-style-type: none"> <li>1. a. Valuation reporting for trades</li> <li>2. b. Market Data (ir curves, credit spread, recovery rate, probability of default)</li> </ol> </li> <li>3. 3. IR Caps/Floors/ EuropeanSwaptions, and corresponding risk types               <ul style="list-style-type: none"> <li>• a. Valuation reporting for trades</li> <li>• c. Market risk reporting (risk with respect to. the above variables) for trades</li> <li>• b. Market data (volatility surfaces)</li> <li>• c. Market risk reporting                   <ul style="list-style-type: none"> <li>• i. Volatility/Vega Risk</li> <li>• ii. Convexity/Gamma Risk (applies to all products).</li> <li>• iii. Time Decay/Theta (applies to all products)</li> </ul> </li> </ul> </li> <li>4. 4. Portfolio level valuation and risk               <ul style="list-style-type: none"> <li>• a. Valuation</li> <li>• b. Risk reporting</li> </ul> </li> </ol> </li> </ul>	

- 5. 5. OTC Equity Forwards, Swaps, and Options
    - a. Valuation Reporting
    - b. Market Data (Share price, dividend yield/stream, smile adjustments, etc.)
    - c. Market risk reporting
      - i. Delta risk (shares of underlying)
      - ii. Gamma risk
      - iii. Interest Rate/Rho risk
      - iv. Volatility/Vega risk
  - Phase II - Support for complex IR / FX products requiring correlation data.
  - Phase III – Aggregated, cross-asset class market risks, such as Value at Risk (VaR) summaries.
  - Phase IV – Credit risk. Before starting work on credit risk, we will have another call for participation to ensure adequate representation from the relevant suppliers, e.g. of credit-related data and of credit calculation engines. We also will need to refine priorities and scope. The group will have a mandate to work with other FpML working groups as required to support development of business processes using the valuation framework.
- The Gem Soup/ Integrasoft proposal for extending FpML to address pricing and risk will be an input to this working group. Other inputs to be reviewed will include the MDDL standard for representing liquid securities and their prices, the XBRL standard for reporting asset values, and the ISDA collateral working group EDI work. There should be an attempt to identify and interact with other ISDA committees that have related interests to ensure that the standard meets as broad as possible a set of needs.

**Skills**  
 The group has skills in at least the following areas:

- Client valuation reporting
- Trading P/L calculation
- Derivatives pricing and analytics
- Desk level and enterprise market risk reporting
- IR, Credit derivative, and to a lesser extent Equity derivative and FX market data and pricing
- Credit risk calculation and reporting
- XML representation and familiarity with FpML

**Organization:**  
 The group will initially work as a single group, at least through the requirements definition phase. At some point in the future, it may be broken into sub groups. Some options for doing this include:

1. based on product focus, e.g. IR vs. credit derivatives vs. equity derivatives.
2. based on data/knowledge type, e.g. valuation and reporting vs. market data.
3. based on business content vs. technical architecture.

If it is decided to split into subgroups, at present option 2 is considered most likely.

Milestones	Date for completion:
Establish working group	Oct 16, 2003
Agree scope and priorities and deliverables	Nov 4, 2003
Review scope with Standards Committee	Nov 10, 2003

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Gather requirements/sample documents, present them to the WG (1, 2, 3)	Dec 16, 2003
Document requirements systematically (1, 2, 3)	Jan 13, 2004
First Deliverable Schema Agreed (1, 2, 3?)	Feb 10-March 2, 2004
Examples and Overview Documentation Prepared (1, 2, 3?)	March, 2004
Recommendations ready for review by Standards Committee (1, 2, 3?)	April, 2004
First Working Draft publication (1, 2, 3?)	March, 2004
Begin work on second deliverable (3, 4)	March, 2004
Numbers in parentheses correspond to the prioritized deliverables listed above in the scope section.	
<p><b>Meeting Schedule</b> The time commitment is expected c. 4-8 hours per week; thread leads will need to commit to c. 8-10 hours/week during the development phase (estimated 2-3 months).</p>	
<p><b>Rules of Operation</b> The working group will adopt the FpML Rules of Operation (Working Groups section). These outline best-practices for meetings, managing member participation, reaching group consensus and voting.</p>	
<p><b>Estimated time commitment from Participants:</b> Members should be prepared to commit approximately ½ a day per week. Full members must have the agreement and support of their management before signing up to the Working Group. It is expected that participants will be signing up for action items and proposals, and will generally be participating in discussions during the week. Participants will also need to liase with other working group members to ensure the consistency of the standard. Experience has shown that occasional face-to-face meetings can expedite the process so members should be aware that some travel and full-day meetings might be required.</p>	

## 2. Chair Contact Information

<b>Chair of Working Group:</b>	Brian Lynn (Global Electronic Markets)
<b>Chair Email Contact:</b>	<a href="mailto:prchair@fpml.org">prchair@fpml.org</a>