Getting a GRIPS
Global Risk Parameters in Allianz Group
A post crisis shift of emphasis for market and risk data

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The demand on market data after the Financial Crisis

The regulatory requirements for insurance and asset management companies have increased in recent years; for example:

- Solvency 2 and usage of an internal risk model
- Derivative directive (UCITS) for asset management

The financial crisis and the post-crisis structure of financial markets add to this challenge and escalate the demand for market data.
Observation 1:
Markets become more differentiated

- Example: ‘Pfandbriefmarkt’ after credit crisis

Source GRIPS / Bloomberg
Observation 2:
Prices are speculative

- During crises many sources, including OTC markets, provide only indicative or speculative prices

Source GRIPS / Merrill Lynch
Observation 3:
The EUR Crisis changes the structure of EUR Government curves

- Example: Government EUR Zero 2008 vs. 2011
Observation 4:
Some traditional classifications have no information value

- Example: EUR Credit Spread Curves Fin after credit crisis
We can summarize the market observations in two main statements:

In the crisis, markets became much more differentiated and ‘issuer specific’

After the crisis the spread levels do not return to the pre-crisis level, but find a new more-or-less stable level. The universe of interest rates becomes much more differentiated and complex.

As a consequence, valuations based on only a few interest rate curves per currency produce inaccurate pricing and traditional and proxy solutions no longer work.
What are the challenges for market data solutions?

As standard data providers do not support a sufficiently diverse coverage, market data management is forced to build in-house solutions and enhance the market data infrastructure with the following components:

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<td>Financial engineering knowhow for interest rate models</td>
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<td>Methodology and calculation engines for term structure models</td>
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<td>Capital markets expertise to administer, select the curve benchmarks and ensure the quality</td>
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How is Allianz IDS enhancing its market data infrastructure with calculated market data?

In 2010, Allianz IDS started the GRIPS Project (Global Risk Parameters) with the intention of establishing an infrastructure for calculated market data:

- To build up a financial library of algorithms for derived market data
- To establish a quality management framework and processes for calculated market data to ensure best quality standards
- To implement a flexible framework to transform and upgrade derived market data to the specific needs of end clients and downstream systems
To develop a substantial IR universe, many different interest curve methodologies are needed

Requirements:
IR-Markets are very different in respect to liquidity, number of available prices per curve, homogeneity of curve benchmark members, etc.

End users of the curves have different requirements: e.g. smooth curves for risk purposes and more fineness for valuation, extrapolation/interpolation methods ...

Our experience:
Standard IR models are not functional in less liquid markets
For less liquid markets GRIPS developed an approach that models the spread curve above a reference curve instead of the curve direct
Standard models need enhancement to be stable
...this all adds up to a complex calculation framework...
Investment Data Services

... but a highly flexible one.
In addition to this improvement, Allianz IDS enrich the data sources

As an insurance / asset management company, Allianz has no direct access to OTC front office data like an investment bank which increases the valuation risk of OTC products

Allianz IDS has looked for an alternative to compensate this disadvantage

Allianz IDS has decided to broaden the market data supplier pool by the OTC data service of the leading inter-dealer broker Tullett Prebon
For Allianz IDS the collaboration with the Tullett Prebon has significant advantages

Gives Allianz IDS direct access to independent and impartial pricing across the full range of financial sectors and their related derivative markets

Tullett Prebon has its own pricing team and offers the most comprehensive coverage of the global OTC markets. This gives Allianz IDS access to fully independent and non-position influenced market pricing

In the case of discrepancies Allianz IDS has access to 24h support and can clarify the quotes with the source

Especially in the case of market turbulences IDS does not depend on anonymous, speculative prices
Tullett Prebon Information provides data for exotic markets

**Coverage:**
- 30,000 instruments on OTC derivatives markets
- Over 42 countries
- Independent and unbiased price

Source: GRIPS / Tullett Prebon Information
Tullett Prebon Information provides data for exotic markets

- FX Options
- Inflation Swaps and Options
- Interest Rates Swaps
- Non-Deliverable FX Forwards and Swaps
- Capfloor Skews and Surfaces
- Swaption Skews and Surfaces

Source: GRIPS / Tullett Prebon Information
Conclusion

The financial markets become much more differentiated and complex

To enable an accurate valuation for risk and P/L an extensive enlargement of the universe of interest rate curves is needed

To prepare for any future crisis a sophisticated and flexible calculation tool box with access to reliable market data sources is required
GRIPS · Allianz Global Risk Parameters
powered by Cronus, the IDS Market Data Services Infrastructure
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