

## Syn-Struct

**Syn-Struct** has been created to solve problems associated with the capture, processing and tracking of all types of structured deals. These are trades with many different constituent transactions making up legs within an overall structured deal.

These structured deals are effectively heterogeneous baskets of transactions (including principal, repo, borrow/lends, FX, loan deposits, cash Margin, collateral) and products (bonds, equities, derivatives, swaps). Because of the nature of the constituent trades within a deal, the overall lifetime of a structured deal can be a very long period of time, typically greater than ten years.

These deals usually arise from two different areas:

- ~ Structured Finance
- ~ Structured Products

### Structured Finance

These deals are created across multiple legal entities in different tax regimes with the express purpose of moving profit & loss between entities in order to minimise tax exposure. They are generally initiated and tracked by the Corporate Finance department. They tend to be a low volume but high value business.

Because of the large value and low volume, these deals are best characterised as Zero-STP. This means that the Corporate Finance department that initiated them would prefer to monitor their progress through every step from deal capture through accounts postings and settlement.

### Structured Products

These deals are created usually as a repeatable trading strategy involving some complex hedge or arbitrage scenario. A particular type of trading desk generally initiates them. This business also tends to be low in volume, but high in value.

While there is the same concern here with monitoring the overall deal through every step of its processing, there appears to be more acceptance that the processing should take place within the relevant downstream silo system for each leg within the structured deal.

### Benefits

- ~ Robust, enterprise strength system that provides views of multi-product deals across multiple legal entities or by entity with the relevant deal constituents
- ~ Solves problems of managing, nurturing and monitoring by exception structured deals and the associated events throughout their usually very long lives
- ~ Enables flexible workflow driven approach easily customised to structured finance and structured products
- ~ Multiple concurrent P&L methods and automatic accounts postings to a corporate GL system by deal or entity
- ~ Deal construction reduced from days to hours with easy-to-use templates (for products)
- ~ Flexible rules-driven lifecycles, allowing complex operational structures to be modelled with ease.
- ~ Improves auditability, risk management and overcomes concerns of regulatory authorities

### The situation today

Today most of these types of structured deal are modelled and captured within spreadsheets. In many cases, the individual legs of the deal are re-keyed into downstream processing systems. In any case, special P&L calculations and accounts postings have to be applied to the structured deal; often manually.

**Syn-Struct** provides an elegant solution for the reliable processing of these complex transactions, addressing the three essential requirements:

- ~ Deal capture
- ~ Deal diary
- ~ Deal posting

## Deal capture

### Today

Initially, deals are typically modelled within a spreadsheet. They are then captured in individual silo applications. This may take several days, thus creating individual trades within the deal with more than one Trade Date. The individual leg references from the silo systems are updated manually in the spreadsheet.

### **Syn-Struct** solution:

1. Structured deals are created and given a name or reference.
2. If it is a structured products deal then a pre-defined basket is assigned as a template to the deal. This template determines the number of legs in the deal and what type of transaction (principal, FX etc) or product (debt, equity, swap etc.) each leg is. This basket of transactions can then be created; pending the addition of the specific instruments, counterparties, quantities, prices etc needed for each leg.
3. If it is a structured finance deal then no such template deal will exist. Instead each leg transaction can be created at will and attached to the overall deal. There is no limit to the number of these transactions or the number of entities to which they will be in. Many of the leg transactions are inter-company flips between entities.
4. A workflow is created from deal inception to final completion of the deal capture phase. This workflow tracks the manual or automatic creation of the individual legs within the relevant downstream silo systems. It also tracks the addition of the individual reference numbers from the silo systems to the legs within the deal.
5. Where appropriate, an individual leg transaction can be fed from **Syn-Struct** directly into the downstream silo system. This can easily be conceived for the simpler transaction types such as principal, FX, repo, and borrow etc.

6. Where these links are not easy or economic to implement, then **Syn-Struct** can create an automatic trade ticket with all relevant details formatted so that a data entry person can easily add the transaction to the relevant downstream silo system. Once added to the silo system, the new ticket reference is added to the leg within **Syn-Struct**; thus partially completing the deal capture workflow.

7. Further communication of overall deal or individual legs within the deal can be sent automatically, via e-mail, telex or fax, to departments within the global organisation. This can be useful for alerting different desks about constituents of the deal and ensuring their priority.

## Deal diary

### Today

Structured deals can last for well in excess of ten years. During that period many things can happen to transactions making up the individual legs of the deal e.g.

- ~ Settlement
- ~ Counterparty name change
- ~ Instrument corporate action
- ~ Option exercise
- ~ Repo return
- ~ Borrow/lend return
- ~ Swap cash flow

While any one of these events may have only a small impact and value within a silo system, it can have an enormous impact on the deal as a whole. This may be because that particular component transaction is acting as a hedge for an overall deal position. This impact is largely invisible to back-office staff. One of the greatest problems for both structured finance and structured product business today is diarising and tracking these events on the overall deal so that their true impact can be assessed.

### **Syn-Struct** solution:

1. After transactions are passed down to the relevant silo systems, open states are kept for relevant actions. These include:
  - ~ Settlement
  - ~ Exercise
  - ~ Repo return
  - ~ Borrow/lend return
  - ~ Swap cash flow
  - ~ Etc

2. Where a silo system has been fed from **Syn-Struct** then settlement status would be expected to be fed back automatically as well.
3. In any case, the diary within **Syn-Struct** would alert operational users to the timing of the event, giving plenty of warning on the potential impact of the event.
4. Once the event has happened within the silo system, the resultant cash or security flow can be entered against the deal within **Syn-Struct**; closing that particular event and acting as audit for the overall deal.
5. Other types of event happen on an ad-hoc basis. These are primarily:
  - ↪ Counterparty name change
  - ↪ Instrument corporate action
6. These ad-hoc events can either be entered manually within **Syn-Struct** or fed automatically from another system such as a corporate action feed. In either case, these events will appear in the diary within **Syn-Struct**.

## Deal postings

### Today

Many different entities can be involved in one structured deal. This is often the case for structured product deals, where a Special Purpose Vehicle (SPV) may be created for the product. This may allow a better credit rating to be achieved for certain parts of the deal.

This, of course, is especially true for structured finance deals. Here, the deals are created for the particular purpose of passing profit or loss from one entity to another. Often these entities are governed by different accounting regimes such as US Generally Accepted Accounting Principles (US GAAP) or International Accounting Standards (IAS). Thus different sets of accounts postings may have to be generated from one structured deal across multiple legal entities.

This problem is exacerbated by the calculation of profit & loss. While the silo systems used to book the individual legs may calculate P&L for the relevant legs; often the P&L must be calculated and posted from the overall deal point of view. In particular the P&L is often calculated

as a Net Present Value of all future cash flows.

### **Syn-Struct** solution:

1. **Syn-Struct** allows the creation of a single structured deal spanning any number of legal entities.
2. The deal can be looked at in two orthogonal views:
  - ↪ By company – showing the positions and P&L for that particular legal entity
  - ↪ By deal – showing the positions and P&L for the entire structured deal across multiple legal entities and SPVs in different tax regimes
3. The P&L held within **Syn-Struct** can be:
  - ↪ Fed in manually or automatically
  - ↪ Uploaded from a spreadsheet calculation
  - ↪ Calculated by **Syn-Struct** on an overall structured deal basis
4. **Syn-Struct** can post to multiple independent general ledgers. These can support different legal entities and be legislated by different accounting regimes, have different calendars, base currencies etc.
5. All events within **Syn-Struct** can generate accounts postings.

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