KDD008 - Transfer Pricing

Status	Approved
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Issue

The intercompany processes and the transfer pricing to support those processes are critical to Syensqo's everyday operational processing. There are currently some very complex activities to support Syensqo's statutory compliance and management reporting. There is a need to better understand the standard SAP transfer pricing capability and group valuation functionality in S4 Hana.

The purpose of this document is to provide a comprehensive understanding of the transfer pricing and group valuation functionality in S4, aiding the decision-making process regarding the implementation of this functionality. The Transfer price solution serves the purpose of enhancing the group managerial reporting by making possible a Global P&L, nevertheless, a secondary objective of this Key Design Decision document is to assess whether the solution can facilitate the statutory Transfer pricing (TP) reporting as well and potentially making the universal ledger the primary data source for PAPM, as opposed to continuing with the current solution. Therefore the objective of this document is not to introduce a solution that replaces PAPM, but rather one that streamlines the current process and standardizes the primary data source for PAPM. (*SAP PAPM: Profitability and Performance Management . Generates the segment P&L for each company automatically in PAPM. Final result can be displayed in BW, flexible format for report. see also LeanIX Factsheet on SAP PAPM*)

Key areas covered in this document include, but are not limited to, the following:

- Background and context of the transfer pricing mechanism and intercompany transactions
- Evaluation of the transfer pricing solution
- Constraints
- A brief view of the current process with PAPM integration

Recommendation

The recommendation is **Option A: implement SAP transfer pricing functionality**, which is a sub-component of the Multiple valuation solution involving both SAP Controlling and Finance components. This implementation would be pivotal where a requirement exists for a single Group (global) Profit and Loss (P&L) statement and global inventory valuation, eliminating any intercompany profit and cost of goods sold (COGS) resulting from transactions between affiliated entities. Furthermore, this Global ledger can serve as the primary data source for transfer pricing calculations and documentation in PAPM.

It has to be noted that, Group valuation should not be confused with consolidation. While consolidation involves the reporting of financial statements of multiple companies as if they were a single entity, group valuation does this on a more granular level, for each individual material. and can therefore report in Margin analysis and PAPM accordingly.

Background & Context

Syensqo conducts business not only with external parties (customers and vendors) it also transacts internally within its group of companies. These internal transactions are usually recorded at transfer pricing, which is regulated according to the prescribed group policy, OECD guidelines and local tax authorities.

A key factor for global companies like Syensqo to having a smooth intercompany process is setting up a pricing structure that conforms with the requirements of all countries and affiliate companies involved but also leads to an arm's length pricing for each intercompany transaction and a fully consistent profit redistribution across countries. Another key factor is related to internal accounting. That is, to ensure that they can analyse their global P&L per several dimensions (e.g customer, selling product) and therefore make managerial decisions on how they will operate more efficiently on global scale.

Transfer pricing is the method of establishing this pricing structure. Because the transfer price is usually set by the organization itself, as opposed to an external supplier, it’s important for the organization to keep track of the original cost of the product because this is what (when compared with the revenue from an external sale) constitutes the real profit to the organization.

Group valuation aids with the tracking of this original cost because it eliminates any of the intercompany profit and intercompany COGS between the affiliate entities, which, while useful from an internal profitability point of view, doesn’t contribute to the overall Gross margin of the organization.

Nevertheless, Group valuation should not be confused with consolidation. While consolidation involves the reporting of financial statements of multiple companies as if they were a single entity, group valuation does this on a more granular level, for each individual material and can therefore report in Margin analysis and PAPM accordingly.

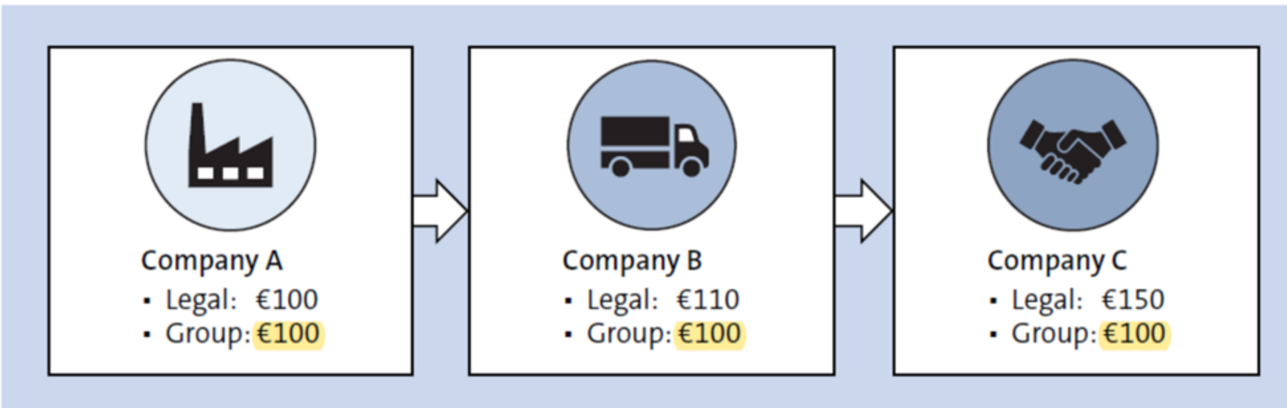
Intercompany and Intra-company Transfer Pricing

It has to be noted, also, that there are two types of transfer pricing: intercompany transfer pricing and intra-company (profit center) transfer pricing. Ownership of inventory changes hands as it is moved across the value chain. This stock movement can be valued differently depending on whether it is for the group, affiliates, or business segment reporting. In group reporting, stock is valued at cost and without any markup. In affiliate reporting, stock is valued at intercompany transfer pricing. Meanwhile in business segments reporting, stock is valued at profit center transfer pricing. For Syensqo, the Profit Center Valuation is not considered an option since there are not many intra-company sales scenarios where one sales organization sells to another sales organization within the same legal entity. Moreover, the Profit Center Valuation functionality is complex to maintain and operate, and the possible benefits are outweighed by the costs of operating it.

Therefore two valuations are considered as part of this KDD, these are:

- Legal (company code / Legal entity) valuation
- Group valuation

Here is a graphical view of the two valuations. The legal price of the stock is changing from one legal entity to another whereas the group price remains the same since the IC profit is eliminated.



Ledger and Currency types

In S4, the Ledger approach will be applied to meet the local and legal valuation requirements either statutory or managerial (group). *Please see the Assumptions section as well as the GAAP Ledgers and Currency Types KDD).* Today, Syensqo operates on a single ledger due to technical limitations and meets several valuation requirements with the so-called account approach.

Multiple valuation requires Legal and group valuations to be set up as currency types in the ledger. The first step is to set up those currency types. The next step is to prepare the ledger where two options are available, either as one multi-valuation ledger or two single-valuation ledgers. A separate KDD has been prepared that deals with the multi or single valuation Ledger decision. (see *GAAP Ledgers and Currency Types* KDD). The currency types required for Group valuation are 31 and 11 whereas the currency type for Legal valuation is 10. Here is a matrix that shows the connection among the currency types and the valuation views:

	Legal Valuation	Group Valuation
Viewpoint	Affiliate viewpoint	Group viewpoint
Inventory Valuation	Intercompany transfer pricing is the basis for inventory valuation	Inventory is valuated at cost and without any transfer pricing markup
Currency Types	▪ 10 local currency ▪ 30 group currency	▪ 11 local currency ▪ 31 group currency

In transfer pricing scenarios, transactions must be recorded in both valuations. The key concept is that every currency type forms a separate amount column in the designated ledger. In the ledger that has or will have a global valuation view, the currency types 31 and 11 will store the global amounts (meaning the global standard price). The local valuation view (currency type 10), with the local (TP) standard prices, will be stored in different amount columns, and additional line items will be generated automatically to eliminate the intercompany profit or intercompany COGS for the local currency type/amount columns. The differences between the valuations are posted to a valuation clearing account.

These accounts will be posted only in group valuation and only in certain business transactions, such as intercompany billing and incoming invoices and for settlement of price differences across company codes from the material ledger actual costing postings. Here is an example:

1. Intercompany billing at the issuing (manufacturer) company
2. Incoming invoice at the receiving (distributor) company.

Accounting documents are posted at the issuing and receiving companies.

In the legal valuation of the issuing company, a revenue of 1,500 and a cost of 1,300 resulted in profit of 200. In the group valuation of the issuing company, there is no profit because this is an intercompany transaction

In the issuing company, the valuation clearing account is posted in group valuation due to revenue differences compared to legal valuation. Similarly, in the receiving company, the valuation clearing account is posted in group and valuation due to goods receipt differences compared to legal valuation.

Accounts	Issuing Company		Receiving Company	
	Legal valuation	Group Valuation	Legal valuation	Group Valuation
Accounts Receivable	+1,500	+1,500		
Accounts Payable			1500	-1,500
Revenue	-1,500	-1,100		
GR/IR			-1,500	+1,100
Valuation Clearing	0	-400	0	+400
Stock	-1300	-1100	+1500	+1100

The IC Profit and IC COGS elimination line items are not considered in this example. For the stock, only the inbound and outbound values are shown in the two valuations in a single row. For simplification, it does not interact with the above rows, which is why it has been separated by a black line.

Local (legal) standard price and Group standard price

A key aspect of the Transfer Price functionality is that the standard cost estimate is calculated not only at the company code (Legal entity) level but also at the Group level. This approach allows for the incorporation of intercompany transfer pricing (IC profit) in cost estimate calculations. On the other hand, in Group valuation, standard costs are determined at the group level, excluding intercompany markups from the cost estimate calculation. The key distinction lies in the inclusion of intercompany markup in the cost estimate for legal entity views, whereas such markup is excluded in the group view.

There are several ways to add an intercompany markup (or exclude conversely) to a cost estimate, including the following methods:

- Utilizing an costing sheet
- Employing a condition type sourced from the IC purchasing info record
- Incorporating additive costs or implementing small custom change to the standard program (a user exit). In the Syensqo set up this might involve utilizing the logic of the current custom tables that store the IC condition types.

These solution options will be thoroughly investigated during the detailed design phase in conjunction with the logistics streams design.

Intercompany sales and purchasing prices

In a typical intercompany scenario, stock is transferred from one affiliate to another at negotiated intercompany transfer pricing. The negotiated price is maintained as the purchasing price at receiving affiliates and as the selling price at issuing affiliates. In transfer pricing scenarios, transactions must be recorded in all the valuations. Hence, a controlling area must be set up accordingly to include currency types for legal and group valuations. The differences between the valuations are posted to a valuation clearing account.

Basic settings for IC Transfer pricing include the below:

- Selling price for Sender/Issuer Legal entity
- Purchase Info record for receiver Legal entity

AS-IS design and PAPM brief overview

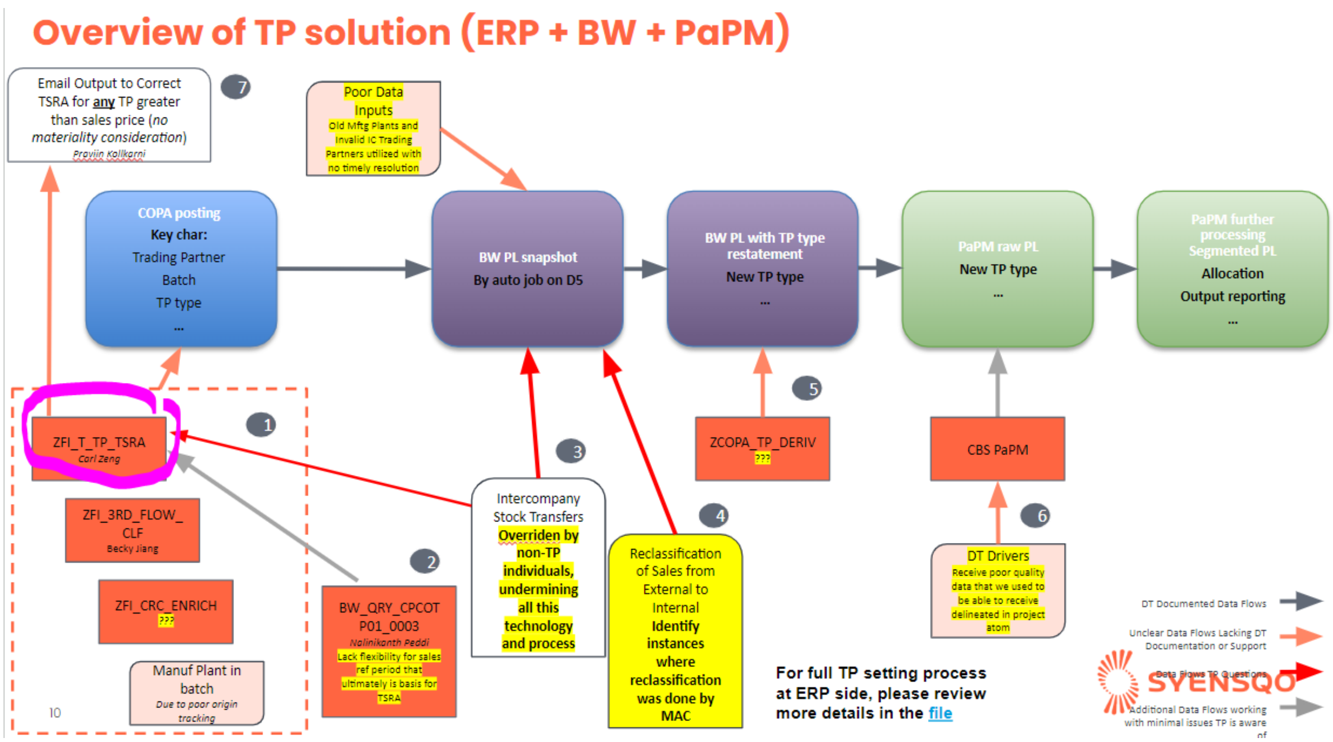
At its core, transfer pricing in Syensqo involves the establishment of prices for transactions occurring between different entities within the organization. This becomes especially critical since these entities span different countries and jurisdictions, and Syensqo is intensive in intercompany transactions. The primary aim is to set fair and market-based prices for the exchange of goods, services, or intellectual property among these internal components.

Currently the process is that a set of custom program and custom tables feed PAPM (*(SAP PAPM: Profitability and Performance Management)* which is the Transfer price segmented P&L reporting solution/tool and the final result can be displayed in BW . We will not describe here the details of the current solution that prepares the data for PAPM because it goes beyond the objectives of this document but here a few highlights:

- A set of custom programs select data from both standard and custom tables in the two systems, WP1 and PF1. This data involves the transactional data and it is enriched with master data objects.
- Price setting is run from the TSRA for entities in WP1 and PF1
- TSRA is a Table that contains the same information necessary for determining transactions and prices as in the segmented P&Ls
  - Legal entity
  - Delivering GBU
  - Delivering Plant
  - Material Code
  - Material Group
  - Partner
  - Transaction Type
  - Price setting %:
  - Reduction %
  - Surcharge %
- The standard prices (semi-standard approach) and the actual prices (periodic unit price - ML actual price) are selected.
- The custom tables feeds into COPA, which feeds into BW, which feeds PAPM.

For more information on PAPM see also https://solvay.leanix.net/SolvayProd/factsheet/Application/5d021760-735c-470a-9f32-58289509bad7

Here is an as-is data flow diagram:



The transfer pricing (TP) methods applied at Syensqo currently are the:

- Cost Plus
- Resale Minus

Cost Plus Method
This method considers the direct costs of the product, which can be either the standard price (WP1) or the periodic unit price (PF1) at the manufacturing company. A surcharge is then added, which includes the allocation of overhead costs and the intercompany (IC) margin.

Resale Minus Method
In contrast, the resale minus method starts from the selling price of the product. It then deducts the IC margin from the manufacturer to the distributor, effectively determining the transfer price by subtracting the appropriate margins.

Assumptions

- The current Key Design Decision Document (KDD) describes SAP functionality designed for achieving Group valuation and eventual generation of a Group Profit and Loss (P&L).
- The production cost system will be S4
- Ledger approach

- The KDD does not address the positive or negative implications of Universal Parallel Accounting on the valuation issue. Another KDD will cover Universal Parallel Accounting's new features and their implications for product costing.
- Group valuation should not be confused with consolidation, as consolidation involves more than just eliminating inventory profit. It includes the elimination of payables and receivables, intercompany debt, revenues, and expenses.
- Profit center valuation it not considered as an option. *See paragraph: Intercompany and Intra-company Transfer Pricing*

Constraints

If the transfer price functionality is implemented, activation of actual costing becomes mandatory. The revaluation on actuals program (CKMLCP) needs to be executed in one run for all valuation areas where the multiple valuation it is desired. Actual Costs can only be transferred between plants that are settled in the same costing run.

Also in the current S4 versions the solution works more effectively when the Advanced IC sales and purchases solution is also implemented *(for further info on the Advanced IC solution see* KDD017 - Intercompany Processing in the new ERP Solution

Impacts

- There will be an impact on ledger and currency type set up. See the Ledger and Currency types paragraph.
- SAP (https://me.sap.com/notes/2882025/E) makes the below two strong statements:
  - The retroactive activation of parallel valuation approaches in a productive system, meaning a system with transaction data that already exists (in the table ACDOCA, for example), leads to inconsistencies in the system if no adjustments are made in the existing transaction data.
  - Deactivation of multiple valuation approaches/transfer prices: You should never deactivate multiple valuation approaches/transfer prices in an SAP S/4HANA release.
- Global inventory valuation will be conducted for the first time in Syensqo's primary entry system.

Business Rules

Standard prices will have to be calculated on both local and group level.

Options considered

Option A: Implement the Transfer pricing solution

Implementing the transfer pricing solution involves applying all the previously described steps and design tasks. This results in comprehensive monitoring of the product value chain, with visibility extending to all involved legal entities in the intercompany (IC) transactions. The entire value chain for actual costs across both valuations (legal and group) can be traced back to all company codes, supported by graphical overviews mapping the entire chain. Groupings by value chain dimensions such as plant, legal entity, profit center, procurement type, and material type are available. Additionally, a global P&L and margin analysis becomes real within the primary entry system (S4).

A significant other benefit is that due to IC eliminations, primary data is readily available for further processing and reporting without requiring complex data manipulation in satellite systems. This is particularly crucial for preparing PAPM and transfer pricing documentation, facilitating easier support for rigorous TP audits across various jurisdictions.

Option B: Do not implement the Transfer pricing solution

The transfer pricing solution is inherently complex, both in terms of initial configuration and ongoing maintenance and support, which often deters its implementation. Hence, the decision required to be made in this case is rather simplistic: whether to implement the transfer pricing solution or not.

Evaluation

	Option A Implement the Transfer price solution	**Option B Do not implement the Transfer price solution**
Complexity	➕Ensures consistent transfer pricing methodologies across the organization, reducing complexity in compliance and reporting. ⛔Complexity of Implementation: Requires specialized knowledge and expertise for configuration and customization, potentially complicating initial setup. ⛔May necessitate additional customization to align with specific business processes and reporting requirements, increasing complexity and implementation time. e.g Ledger and currency type set-up	➕ Avoids the serious complexity associated with implementing and maintaining a specialized transfer pricing functionality. ⛔Relies on manual transfer pricing calculations and management, which can be complex, error-prone, and time-consuming, especially since Syensqo has extensive intercompany transactions.

Feasibility	➕Creates a separate view that can be used to display the inventory results of a group of affiliated companies as if they were a single entity. Any intercompany profit and COGS resulting from the sale and movement of goods between affiliated entities will be eliminated. Essentially, the organization will treat all companies in the group as a single entity from an inventory valuation and margin analysis standpoint ➕Automates transfer pricing calculations and postings, improving operational efficiency and reducing manual effort. ⛔Integrating transfer pricing functionality with legacy systems or third-party applications may present technical mis-alignments	➕ Maintains flexibility to adopt alternative transfer pricing methodologies or solutions that better align with current business needs and strategies. ⛔ Could face challenges scaling transfer pricing operations as the organization grows or expands, particularly in managing complex intercompany transactions without value chain monitoring.
Cost /Effort to Implement	➕Reduces discrepancies and improves compliance, potentially lowering long-term costs associated with audits and regulatory fines. ⛔High upfront costs for customization and maintenance may be substantial. ⛔Requires ongoing investment in maintenance, calculations, and support, adding to operational costs.	➕Eliminates upfront costs associated with customization, training, and ongoing maintenance of transfer pricing functionality. ⛔May incur higher operational costs due to manual processes and potential inefficiencies in transfer pricing management and compliance.
Ongoing Operational Impact	➕Real-time data updates and comprehensive global margin analysis enhance managerial decision-making capabilities and financial oversight. ➕Maintains detailed records and audit trails, facilitating easier preparation for transfer pricing audits and regulatory requirements. ⛔Users and stakeholders will require training to effectively utilize and maintain the Transfer pricing solution, impacting ongoing operational efficiency.	➕Allows for greater freedom in customizing to specific organizational requirements without constraints imposed by the Transfer pricing functionality. e.g The ledger set-up ⛔TP department will carry on facing difficulties in preparing for transfer pricing audits without automation provided by the transfer pricing solution and the real-time data management. PAPM would again rely on data that has not been prepared within the primary entry data system.

Qualitative Analysis:

In qualitative terms, while not implementing the transfer pricing functionality offers short-term advantages in simplicity and cost savings, it introduces significant risks related to operational inefficiencies, compliance challenges, and limited scalability. The option to implement transfer pricing functionality, despite its initial complexities and dependencies, provides long-term benefits through enhanced operational efficiency, compliance management, scalability and reporting capabilities. We must carefully weigh these factors based on the needs for Managerial accounting, margin analysis on global level, the growth trajectory and regulatory framework to make an informed decision that aligns with the strategic goals and operational capabilities.

See also

Other relevant KDDs:

KDD018 - GAAP Ledgers and Currency Types

KDD017 - Intercompany Processing in the new ERP Solution

KDD022 - Multi-dimensional Account-based P&L Reporting

KDD012 - Product Costing Approach

Technical reading:

SAP Note 2882025 - Multiple valuation approaches/transfer prices in SAP S/4HANA, on-premise edition

Change log

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