

**Options and challenges for
Profitability Analysis CO-PA
under S/4HANA**

Our Point of View

SAP has started its journey to fully integrate profitability analysis into General Ledger with SFIN 1.0 in 2015 – **only for S/4HANA (Finance)** customers.

SAP's ultimate goal is to enable **true real time reporting and a streamlined closing process** "reconciled by design".

Today, **not all functionality from costing based CO-PA is yet available** with "Simplified Profitability Analysis" – successor of account based CO-PA.

In parallel, SAP has introduced **"Combined Profitability Analysis"** which is available for **S/4HANA** customers since 2016.

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SAP Positioning of S/4HANA in the area of Finance

S/4HANA (1709) or S/4HANA Finance

One Logical Document

One accounting document across Finance, Controlling, and CO-PA simplifies reporting and display of accounting document information

Elimination of Aggregates

Elimination of totals tables, fixed hierarchies, and database indices allows for flexible reporting and dynamic hierarchies pulling from line item detail in real-time



Modern UIs/Fiori

- People Centric
- Any Device
- Browser based
- Workflows embedded
- Decision Support
- Embedded Analytics: Continuous extension of the Virtual Data Model

Reconciled by Design

Reduction in batch close processes, processes designed for real-time operations, and availability of reporting on demand enables transition to a continuous (soft) close

Available versions of Profitability Analysis

Definition

Currently there are 4 different solutions available from SAP

1

Costing-based CO-PA groups costs and revenues according to value fields and Costing-based valuation approaches in a separate persistence. This solution is already available for long period and is widely used by customers. Costing-based CO-PA is available in SAP ERP Financials and SAP S/4HANA Finance (in maintenance mode).

2

Account-based CO-PA profitability analysis is using an account-based valuation approach. Also, this solution is available for a long period. Account-based is available only in SAP ERP Financials (in maintenance mode).

3

Combined CO-PA (fka "profitability subledger") is designed as "Best of both worlds". Technically this is an enhancement of Costing-based CO-PA with additional persistence consisting of 4 new tables CE9xxxx_xx. It eliminates shortcomings of the legacy versions 1. and 2. of CO-PA regarding reconciliation with GL, currencies and quantities. Combined CO-PA can be run in addition to CB and/ or AB CO-PA and is currently **available with S/4HANA.**

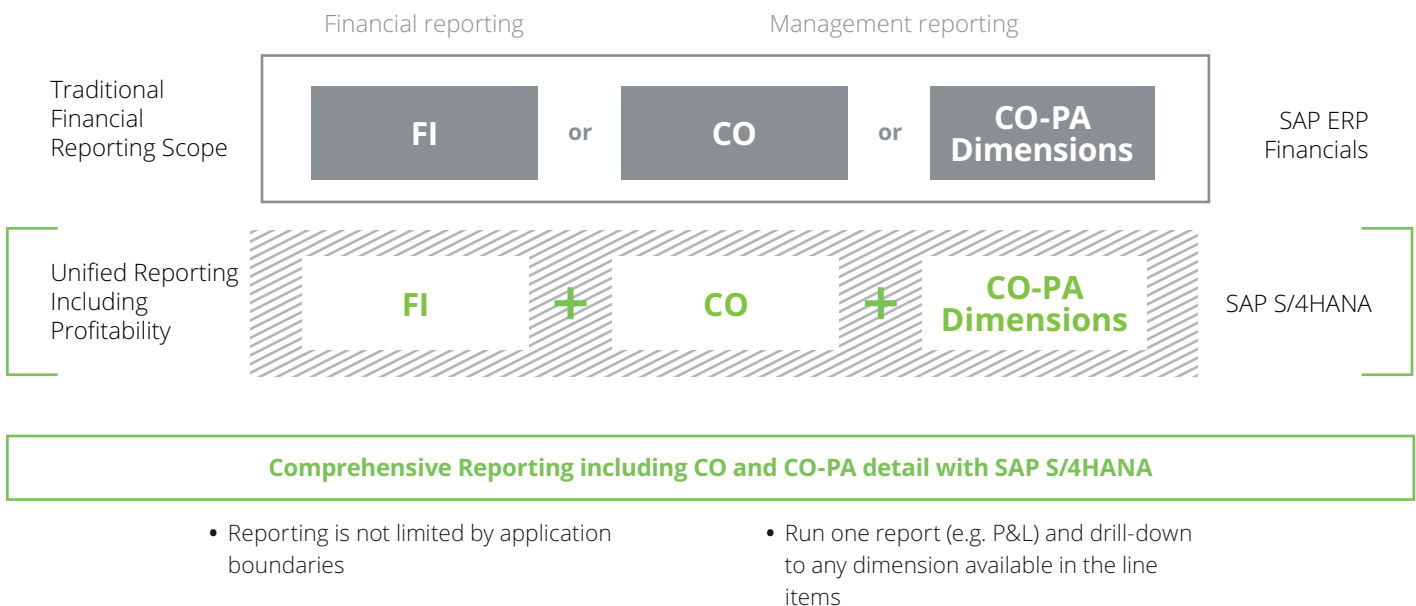
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Simplified Profitability Analysis (fka "Profitability Analysis in the Universal Journal") offers a new form of profitability analysis, which is part of the new product SAP S/4HANA Finance and is technically based on the former Account-based CO-PA.

Deep Dive – Simplified Profitability Analysis

Reporting

Harmonized Internal and External View



Foundation is Account-based CO-PA

Base: Reuse of proven functionalities from both legacy CO-PA approaches

- Operating concern
- Definition of characteristics
- Posting logic on profitability segment (PSG)
- Derivation tool for missing characteristics
- As functionalities remain unchanged, customers can keep their logic

Plus: Real time profitability

- Characteristics are immediately derived at the point of time of entering each "primary" document
- Post to a CO-object and fill PSG in one step based on configuration
- No settlement run or assessment cycle necessary, PSG is populated for each P&L line item
 - Cost centers
 - Internal Orders
 - Sales Order Items
 - WBS Elements
- Derivation is managed by account assignment and corresponding types

Detailing cost of Goods Sold (COGS)

Income Statement		Details - Cost Estimate		New Profitability Analysis (based on accounts)	
Revenue	1.900	Labor	150	Sales & Sales Deductions	1.900
- Cost of Sales Goods Sales	1.200	External Labor	250	Net Sales	
Gross Margin		Material fix	30	- COGS Labor	400
- Marketing Cost		Material variable	250	- COGS Material	550
- R&D Cost		Overhead	180	- COGS Overhead	250
- Administration Cost		Administration	70	Standard Margin	
+/- Other Revenue / Other Expense		Total	1200	- Production Variance	
+/- Amortization / Depreciation				Gross Margin	
Ebit					

Before SAP S/4HANA, COGS are posted to one G/L account in accounting only

Details for manufacturing the product such as labor or material costs coming from the costing sheet, were not displayed.



Profitability Analysis has been refined to reflect the standard cost component split on the G/L account

Business Add-Ins (BAIs) available to cover flexibly more scenarios and other cost component splits

Detailing Production cost variances

Income Statement	
Revenue	1.900
- Cost of Sales Goods Sales	1.200
- Production Variance	100
Gross Margin	
- Marketing Cost	
- R&D Cost	
- Administration Cost	
+/- Other Revenue / Other Expense	
+/- Amortization / Depreciation	
Ebit	

Details – Costing-based CO-PA	
Input Price Variance	40
Input Quantity Variance	40
Resource-Usage Variance	0
Remaining Input Variance	0
Scrap	5
Lot Size Variance	15
Total	100

New Profitability Analysis (based on accounts)	
Sales & Sales Deductions	1.900
Net Sales	
- COGS Labor	400
- COGS Material	550
- COGS Overhead	250
Standard Margin	
- Input Variance	80
- Lot Size Variance	15
- Scrap	5
Gross Margin	

Production variances can occur on production orders where there are differences between the actual costs (debit of the order) and the target costs (credit of the order).

Before SAP S/4HANA, Product Cost Variances are posted to one G/L account in accounting only. Details of the variances were not displayed.



Product Cost Variances, e.g. input price, quantity, scrap, can be defined as accounts and can be used in Profitability Analysis in Universal Journal for root cause analysis of variances

Standard prices are used for produced materials

Comparison of Profitability Analysis Solutions

Comparison – Solutions in Focus











In the following comparison we concentrate on only 2 solutions

1. Costing-based CO-PA
2. Simplified CO-PA (fka "Profitability Analysis in the Universal Journal")











Rationale

- Costing based CO-PA is widely used and available in future releases
- Simplified CO-PA is the future strategic direction of SAP and replaces account based CO-PA
- Combined CO-PA has limited scope and is supported in S/4HANA

Added Value

Functionality	Example	Profitability Analysis in the Universal Journal	Costing-based CO-PA
Reconciliation	Reconciliation of legal and management accounting and profitability, for example by profit center	 Available	 Not in scope
Production variance split	Distinguish variances in costs of producing materials by price, quantity or scrap variances	 Available	 Available
Top-down distribution	Distribute high-level costs to the relevant market segments to allow profitability analysis	 Available	 Available
Drilldown by characteristics from income statement	Drilldown by product and customer-related characteristics in COGS and revenues within income statement	 Available	 Not available
Profitability characteristics on balance sheet items	For unbilled revenues or WIP, customer wants to see the project, region, customer category	 Available	 Not available

Current Limitations

Functionality	Example	Profitability Analysis in the Universal Journal	Costing-based CO-PA
Cost component split/ COGS split	Breakdown of COGS into fixed and variable, as well as different kind of costs such as material, administration and overhead costs	 Partial	 Available
Sales conditions	Sales conditions can be used to calculate contribution margin level, such as sales commissions, calculated freight or discounts, which are not posted in G/L	 Not yet available	 Available
Realignment	After changes of profitability characteristics such as division, it is possible to derive for historic data new values in CO-PA	 Available	 Available
Order entry	Creation of a sales order item generates expected revenue and COGS entry in profitability	 Not yet available	 Available
General costing approaches	Calculatory costs not reflected in G/L – additional costs or different valuation Special case: periodic revaluation	 Partial Such as cost component split	 Available

Planned innovations

Outlook for Profitability Analysis in the Universal Journal

Innovations available with release 1709

Splitting Cost of Goods Sold in SAP S/4HANA

- Enhanced functionality enables to split costs of goods sold during more processes such as third party or other processes with account assignment to internal orders or projects
- COGS Splitting customizing has been adjusted
- Previous COGS Split functionality which processed the splitting only for goods movements with reference to a sales order is still available

Reporting app for Realignment Results

- With this SAP Fiori app you can see the adjustments that were made to your posted profitability reporting dimensions by the realignment for Profitability Analysis
- You gain insight into the changes resulting from realignment runs by reviewing the profitability characteristics as originally posted and after realignment and Analyzing the results with visual graphs

2018/2019 Product Vision

- Provide Order Entry information in Universal Journal
- Provide information on Sales Conditions in Universal Journal, which are not posted in G/L
- Enhancements to SAP Fiori app to support Event-Based Revenue Recognition for further scenarios for Sell from Stock
- Enable additional Quantities in Profitability Analysis
- Enable Actual Costing information in Profitability Analysis in Universal Journal

Availability and migration aspects

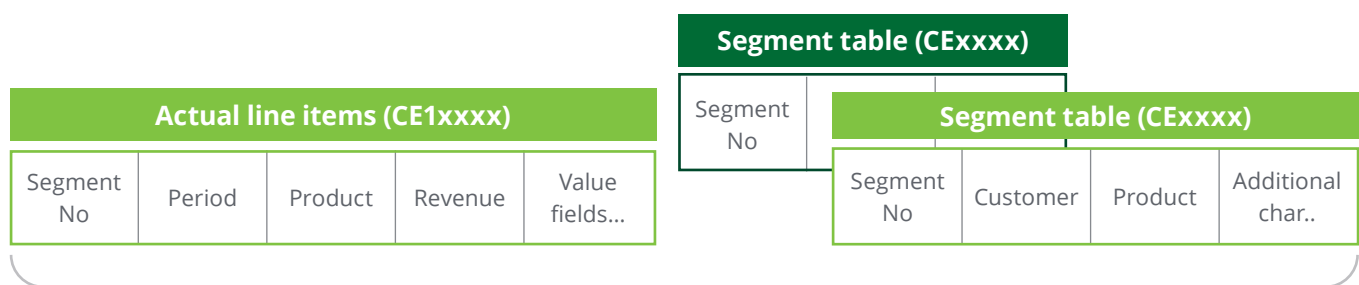
Availability

Product	ECC 6.0	S/4HANA (1610)	S/4HANA (1709)
Costing based CO-PA	maintenance mode	maintenance mode	maintenance mode
Account based CO-PA	maintenance mode	Discontinued (replaced by Simplified CO-PA)	Discontinued (replaced by Simplified CO-PA)
Combined CO-PA	Available	Available	Available
Simplified CO-PA	Not available	Available, subsequent enhancements	Available, subsequent enhancements

Conversion to S/4HANA

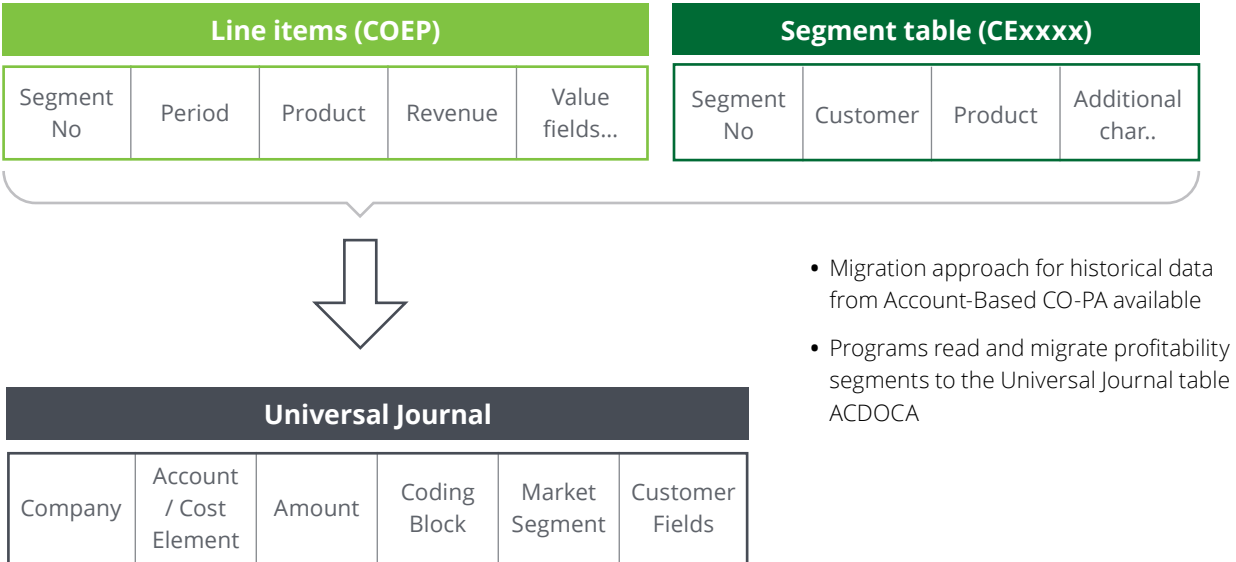
Path for customers using CO-PA today

1. Customers using Costing-Based CO-PA



- No migration approach for historical data from Costing-Based CO-PA available
- Due to flexibility of costing-based CO-PA difficult to reconcile with GL
- For some processes and highly flexible KPIs migration not possible or does not make sense
- New GL accounts or sales conditions may be required depending on current set-up

2. Customers using Account-Based CO-PA



Activating Simplified Profitability Analysis

Path for customers using CO-PA today

Recommendation

- Proceed with new S/4HANA solution alongside your current Costing-Based CO-PA
- Parallel usage of both solutions enables
 - to build up historical data for comparison
 - to smoothly adopt the new Profitability Analysis solution
- Evaluate if Profitability Analysis sufficiently meets your business requirements

Preparation Steps

- Prepare and analyze the mapping of values fields to accounts and decide if additional accounts need to be defined and created (e.g. for COGS or production variances)
- Some processes could be re-designed and adjusted to the new features of the new Profitability Analysis, such as the real-time derivation of characteristics
- Some G/L Accounts need to be maintained as cost elements – e.g. the COGS and price difference G/L Accounts

Key Considerations & Recommendation

Key Considerations & Recommendation

- If a S/4HANA decision is pending today...
 - Since SAP is only enhancing S/4HANA solutions in future releases, your first choice is **Simplified CO-PA**
 - Compare your reporting requirements to **Simplified CO-PA** functionality e.g. order entry or integration with SD condition types
 - Include **data transfer to other systems**, such as a data warehouse.
- Include **Planning aspects** in your considerations
- If you work with lots of statistical value fields today **evaluate options**
- If costing-based CO-PA is currently used, analyze what workarounds are being used to reconcile the profit and loss statement with costing-based CO-PA to determine whether these will be required in the future.

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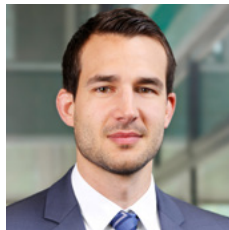
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