

SBN SAP Conference

**Overview of ledger design and tax engine used for
Equinor**

Presenters:

Vetle Bredenbekk

Shaan Shah

S/4 HANA Transformation Vision for Direct Tax

In ECC, direct tax calculations were done by Equinor through an excel based solution with the data source for tax calculations being SBC (Consolidation data).

- Tax basis was not part of SAP core
- The transactional postings and master data set up was done primarily considering IFRS requirements
- Tax information was spread across multiple spreadsheets and data sources
- Tax analysis could only be started once data was released to group reporting

Increasing regulatory pressure is making rapid retrieval of tax information and analysis a necessity

- Tighter deadlines for tax return and compliance information submission
- Global reporting requirements (ex Pillar 2) which need to be in sync with local reporting
- Authorities requesting for more granular tax data (ex. SAF-T reporting)

This led to the tax team's objective to have the tax basis being recorded and updated in SAP core on a near-real time basis

- This design positions SAP as the single source of truth for all direct tax data and analytics. It enables seamless access to accurate, complete, and timely tax information, which can be directly used for:
- Tax Provisioning, compliance and return preparation
 - Audit support and documentation
 - Tax assessments and reconciliations

By integrating the tax base into the core transaction flow, we ensure that tax calculations are accurate from the first point of entry, reducing errors and rework, and enhancing confidence in tax reporting.

Business Requirement: Supporting Diverse Tax and Reporting Scenarios

Standard Legal Entities

Business Context:

Traditional company structure with a single reporting requirement.

Reporting Requirements:

1. Single tax regime

Key Challenge:

1. Simpler reporting model
2. Must remain aligned with enterprise-wide reporting standards
3. Operating currency different from tax currency in certain cases

Branch Operations

Business Context:

Branches must support both local and head office reporting requirements.

Reporting Requirements:

1. Branch standalone reporting (Branch Currency)
2. Head office reporting (Head Office Currency)

Key Challenge:

1. Dual reporting from the same underlying transactions
2. Different currencies, reporting views, and tax rules
3. Local regulatory compliance while maintaining group reporting consistency

Oil and Gas specific regimes

Business Context:

Special tax regimes are frequently imposed on companies engaged in the oil and gas sector in certain jurisdictions.

Reporting Requirements:

1. Corporate Income Tax (CIT)
2. Special regime for Oil and Gas
3. Tax on Onshore Income

Key Challenge:

1. Same business transactions must support reporting across multiple tax regimes
2. Different tax treatments and adjustments may be required for each regime

Key Questions

Considerations

Where and how do we store the tax basis in core

- Tax basis should be in sync with accounting (updated on a near real time basis)
- Solution should support diverse scenarios from tax perspective
- Ease of retrieval of tax data from the core, supporting diverse reporting requirements

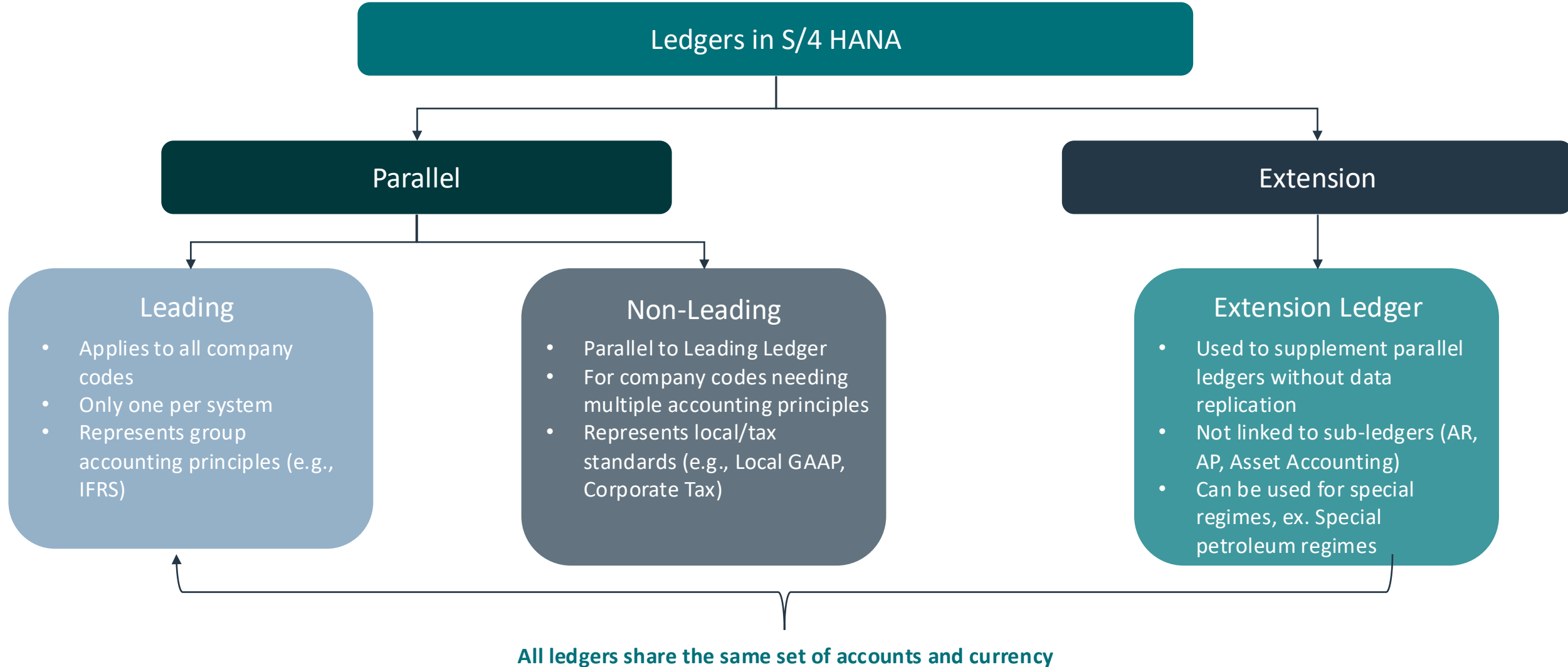


How do you maintain the tax basis in the storage solution

- Use of standard functionality to the extent possible
- Rule based solution which allows easy review/maintenance
- Solution for analytical information which cannot be maintained at account level



Ledger Design – Fundamentals



Ledger design - Solution for Equinor

Normal Company Codes



One parallel ledger to store the tax basis

Oil and Gas - Company Codes



Combination of parallel and extension ledgers to ensure tax basis as per different regimes recorded in the core without any data duplication, along with use of profit center hierarchies, where applicable

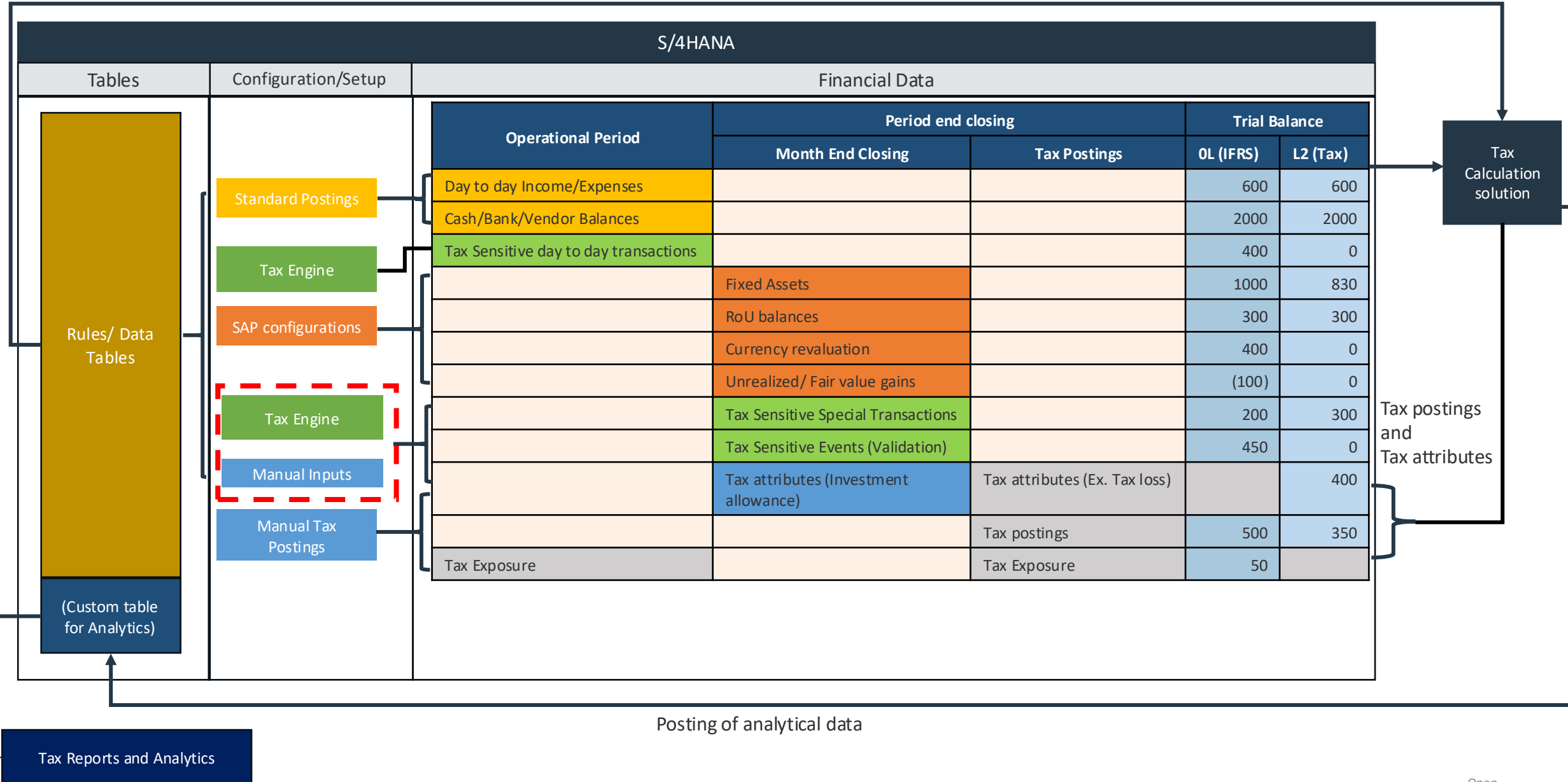
Branch Companies



Head office and branch parallel ledger along to ensure basis is maintained as per both rules in the required currency



Direct tax Solution Overview



Tax Engine overview

- IFRS and **tax rules** differ in how they recognize and value certain events and transactions.
- The objective of the ledger design is to enable the users to view the tax base as per different regimes within SAP core.
- S/4 HANA's standard functionality does maintain the balances for certain category of transaction and events (assets, lease accounting, foreign currency valuation), but it lacks built-in functionality for other **permanent and temporary differences**.
- Tax Engine mechanism helps in maintenance of these values in tax ledgers by:

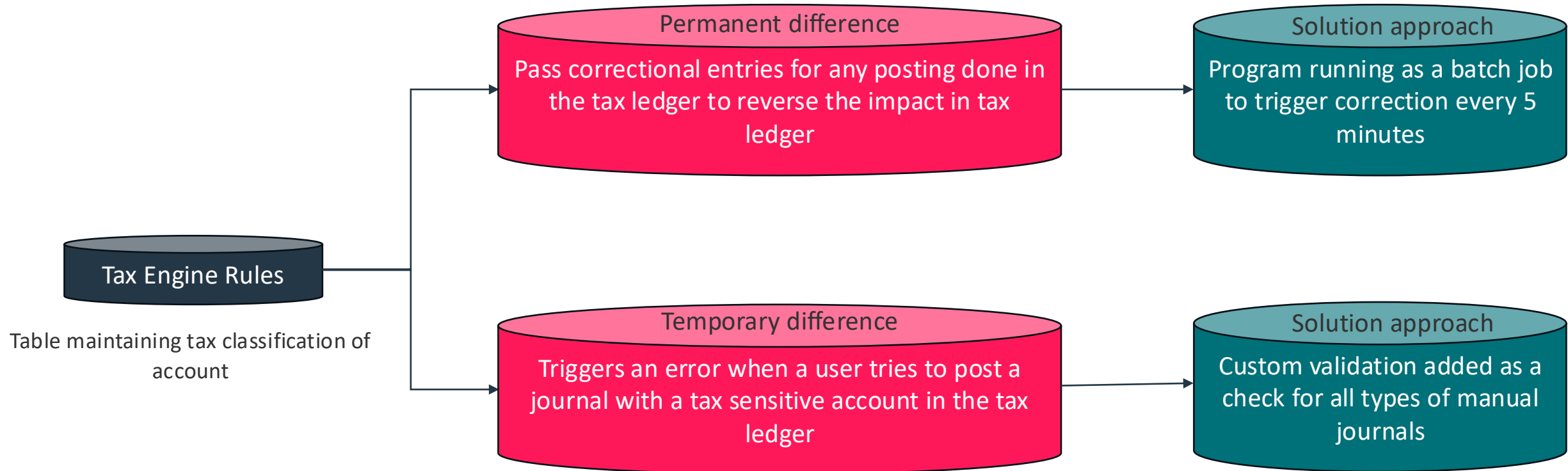
Transactions

- The expenses create permanent differences for tax, but balances in the offset accounts (e.g., cash, bank, customer) are relevant for all ledgers.
- The tax engine uses rule-based logic to adjust the expense balance in tax ledger, automatically posting correction entries in batch jobs every 5 minutes.

Events

- These are typically considered temporary differences for tax, with the entire transaction excluded per tax rules.
- Validation rules, based on tax engine settings, ensure that if the ledger group containing tax ledger(s) is selected, an error message is triggered, preventing the posting from impacting the tax ledger.

Solution Architecture



Permanent difference – Practical example

Display Line Items in General Ledger

Standard*

Ledger: OL (Group GAAP Leading Ledger) Company Code: G/L Account: 6072000 ("Meals/gift, no...") Status: All Items Posting Date: Fiscal Year to Date (01.01.2026 – ...)

Line Items (4) SAP - Ungrouped

Status	Assignment Reference	Journal Entry	Journal Entry Type	Posting Date	Posting Key	Amount in Company Code Currency	Tax Code	Clearing Journal Entry	Profit Center	Segment	Journal Entry
✓	20260630	100000445	SA (Regular MJE)	30.06.2026	40	1,000.00 GBP	S2				
✓	20260909	100000446	SA (Regular MJE)	09.09.2026	50	-100.00 GBP	Z1				
✓	20260909	100000451	SA (Regular MJE)	30.06.2026	40	10.00 GBP	Z1				
✓	20260911	100000453	SA (Regular MJE)	30.06.2026	40	20.00 GBP	Z1				
						930.00 GBP					

Display Line Items in General Ledger

Standard*

Ledger: L2 (Tax Ledger - LE/HO) Company Code: G/L Account: 6072000 ("Meals/gift, no...") Status: All Items Posting Date: Fiscal Year to Date (01.01.2026 – ...)

Line Items (8) SAP - Ungrouped

Status	Assignment Reference	Journal Entry	Journal Entry Type	Posting Date	Posting Key	Amount in Company Code Currency	Tax Code	Clearing Journal Entry	Profit Center	Segment	Journal Entry
✓	20260630	100000445	SA (Regular MJE)	30.06.2026	40	1,000.00 GBP					
✓	20260909	100000446	SA (Regular MJE)	09.09.2026	50	-100.00 GBP					
✓	20260909	100000451	SA (Regular MJE)	30.06.2026	40	10.00 GBP					
✓	20260911	100000453	SA (Regular MJE)	30.06.2026	40	20.00 GBP					
✓	20260828	8100013200	TC (Tax Ledger Corre...	30.06.2026	50	-1,000.00 GBP					
✓	20260909	8100013201	TC (Tax Ledger Corre...	09.09.2026	40	100.00 GBP					
✓	20260909	8100013202	TC (Tax Ledger Corre...	30.06.2026	50	-10.00 GBP					
✓	20260911	8100013204	TC (Tax Ledger Corre...	30.06.2026	50	-20.00 GBP					
						0.00 GBP					

Permanent difference – Practical example

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Journal Entry ▾

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100000445

Edit

Reverse

Create Correspondence

Document Flow

Verify Journal Entries

Display Change Log

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General Information

Line Items

Taxes

Related Documents

Notes

Attachments

General Information

Transaction

Document Reference ID:
–

Reference Document Type:
BKPPF (Actg Doc.Direct Inpt)

Original Reference Document:
010000044524652026

Administration

Reference 1:
–

Reference 2:
–

Fiscal Year Period:
006.2026

Journal Entry Created By:

Journal Entry Date:
30.06.2026

Posting Date:
30.06.2026

Submitted/Parked By:

Submitted/Parked On:
28.08.2026, 10:18:01

Taxes

Tax Reporting Date:
30.06.2026

Tax Fulfilment Date:
30.06.2026

Tax Calculation:
Manually

Tax Based On:
Net Entry

Line Items

Ledger View

Entry View

Line Items (2)

Standard ▾

Ledger

L2 (Tax Ledger - LE/HO) ▾

Display Currency

GBP (Transaction Currency) ▾

T-Account View

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Journal Entry I...	G/L Account	Debit	Credit	
000001	6072000 ("Meals/gift, not ded)	1,000.00 GBP	0.00 GBP	>
000002	8499000 (Ext. other fin)	0.00 GBP	1,000.00 GBP	>

Total Debit
1,000.00 GBP

Total Credit
1,000.00 GBP

Permanent difference – Practical example

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equinor

Journal Entry ▾

8100013200

Tax Engine Corrections

Reverse

Create Correspondence

Document Flow

Display Change Log

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General Information

Line Items

Notes

Attachments

General Information

Transaction

Document Reference ID:
0100000445

Reference Document Type:
BKPFF (Actg Doc.Direct Inpt)

Original Reference Document:
810001320024652026

Journal Entry Category:
L (Posting Not in Leading Ledger)

Administration

Ledger Group:
L2 (Tax Ledger - LE/HO)

Reference 1:
–

Reference 2:
–

Journal Entry Date:
28.08.2026

Posting Date:
30.06.2026

Fiscal Year Period:
006.2026

Taxes

Journal Entry Created By:
WF-BATCH

Created On:
28.08.2026, 10:21:24

Tax Reporting Date:
–

Tax Fulfilment Date:
–

Line Items

Ledger View

Entry View

Line Items (2)

Standard ▾

Ledger

L2 (Tax Ledger - LE/HO) ▾

Display Currency

GBP (Transaction Currency) ▾

T-Account View

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Journal Entry I...	G/L Account	Debit	Credit	
000001	6072000 ("Meals/gift, not ded)	0.00 GBP	1,000.00 GBP	>
000002	2081110 (PD - NOI)	1,000.00 GBP	0.00 GBP	>

Total Debit

1,000.00 GBP

Total Credit

1,000.00 GBP

12 |

Open

Temporary Difference – Practical example

Post General Journal Entries

SS

Total Balance: -10.00 NOK

Header

Attachments

Notes

Balances

Journal Entry Date: 09.10.2026

Posting Date: 09.10.2026

Period: 10

Journal Entry Type: SA (Regular MJE)

Company Code:

Transaction Currency: NOK (Norwegian Krone)

Ledger Group: -

Reference:

Intercompany Transac:

Partner Bus. Area: -

Header Text:

Translation Date: 09.10.2026

Show More

Line Items (2)

> 1 Company Code

G/L Account* 2291000 (...)

Debit* 0.00 NOK

Credit* 10.00 NOK

> 2 Company Code

G/L Account*

Debit* 0.00 NOK

Credit* 0.00 NOK

Total Debit: 0.00 NOK Total Credit: 10.00 NOK

Tax Items

Standard

Calculate Tax

Net Entry Yes

Tax Reporting Date e.g. 31.12.2026

Tax Fulfill. Date e.g. 31.12.2026

Tax Doc. Item	G/L Account	Debit Amt in DC	Credit Amt in DC	LC Tax	LC 2 Tax	LC 3 Tax	Tax Jurisdiction	Tax Code	Base Amount in Transaction ...	Condition T...	
No data available											

Page 1 Line Item 1:GL 2291000 is tax sensitive. Try ledger group "YL" instead

1

Select Templates Upload New Entry Hold Journal Entry Simulate

Post