The Mechanics of Foreign Currency Valuation in SAP S/4HANA

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Abstract:
Globalization has created so many opportunities for organizations such as procuring quality materials from other countries, outsourcing manufacturing process to other geographies where efficient and cost-effective labor is available and selling products worldwide. It results in organizations dealing with multiple currencies for their day-to-day transaction processing. Transacting in foreign currencies has significant impact on company's financials due to various factors such as fluctuations in exchange rates in global financial markets, hence there are some statutory requirements such as International Accounting Standard 21 that outlines how to account for and translate foreign currency transactions and operations in financial statements to ensure accurate and transparent financial reporting.
SAP S/4HANA offers a robust functionality to deal with foreign currency valuation. This article speaks about importance of foreign currency valuation, how realized and unrealized foreign exchange gains and losses are calculated and recorded and the functionality that SAP S/4HANA Offers to manage end to end solution for foreign currency valuation.

Keywords: Foreign Currency Valuation, Unrealized Foreign Exchange Gains or Losses, International Accounting Standard (IAS) 21, International Financial Reporting Standards (IFRS), US GAAP (Generally Accepted Accounting Principles), SAP S/4HANA.

Introduction:
Periodic reporting is one of the statutory requirements for any organization across most of the industries in various countries. Disclosing accurate financials to public is also another statutory requirement enforced by the regulatory authorities in most of the countries for publicly traded companies to ensure investors and other stakeholders have the true financial picture of the organization. Financial statements are usually disclosed or shared with regulatory authorities in their operational currency i.e. currency of the country where the company operates with few exceptions such as a country choosing another currency which is different from its own currency for financial reporting due to high volatility for the country's currency in global financial market.
Organizations transacting with various business partners such as customers and suppliers from other geographies must deal with multiple currencies such as paying their suppliers and receiving funds from customers in foreign currencies. Values from all the foreign currencies are to be converted into operational currency and gains or losses due to changes in foreign exchange rates are to be calculated and recorded before financial statements are prepared and published.

What is Foreign Currency Valuation:
Foreign Currency Valuation is a period end activity through which the values recorded in foreign denominated currencies are valuated using spot rate valid at period end and posted in Operational or Reporting Currency. Difference between original amount and valuated amount in reporting currency is considered as foreign exchange gain or loss.

Significance of Foreign Currency Valuation:

1.   **Accurate Financial Reporting:** Disclosing accurate financials is one of the fundamental requirements for any organizations for the benefit of its investors and other stakeholders. Inaccurate financial disclosures is considered as a financial crime as it can misguide investors [6].

2.   **Statutory Reporting Requirements:** Revaluating foreign currency is a statutory requirement in many countries and is also an accounting standard that must be followed as per IAS 21, IFRS, US GAAP to ensure transparency and consistency in financial reporting [6].

3.   **Impact on Financial Performance:** Exchange Rates may fluctuate very high in global financial markets and their impact can be huge on financials. Calculating foreign exchange gains or losses provides clear visibility on what is true financial performance of an organization and to what extent the changes in exchange rates have impacted an organization's net profit or loss.

4.   **Decision Making:** Revaluation of foreign currency helps analyze trends in foreign exchange movements so that important decisions can be made such as revising pricing structures as per the changing exchange rates, exploring other geographies that can serve the needs of an organization with stable currency.

Foreign Currency Valuation in SAP S/4HANA:

SAP S/4HANA offers robust functionalities for managing foreign exchange rates and their valuations. Executing Foreign Currency Valuation requires sourcing exchange rates daily. Organizations can choose between SAP Standard Solution "Market Rates Management" or can also leverage and integrate third party applications for receiving and updating daily exchange rates.

SAP Market Rates Management (MRM):

Sourcing Exchange Rates on a daily basis is a crucial need for treasury department for foreign currency valuations. Organizations can benefit from SAP Market Rates Management through below.

1.   SAP Markets Rates Management offers an easy, fast and streamlined setup for its deployment

2.   It sources exchange rates from leading foreign exchange rates providers, hence eliminates the need for business to have contracts or third party integrations.

3.   It helps in automating daily feed from the providers we select.

Methodologies available in SAP S/4HANA for Managing Foreign Currencies:

Foreign Exchange gains or losses are of two types.

1.   Unrealized Foreign Exchange gains or losses

2.   Realized Foreign Exchange Gains or losses

 1.   Unrealized foreign exchange gains or losses:

Unrealized gain or losses are the gains or losses that occur when the balances or outstanding items posted in foreign currency are valuated using the spot rate valid at period end. The gains or losses are considered unrealized since they are for unsettled transactions [2].

Example: An organization operating In the United States with Operational and Reporting Currency as "USD" has procured some material from a supplier located in Europe on Jan 1st, 2025. Assume this transaction between two parties is in "Euro" as suppliers usually ask to pay them in their local currency and is worth of 100,000 Euros.   Assume exchange rate between USD and Euro at the time of invoice posting is 1:0.86 on Jan 1st 2025, hence the equivalent value of 100,000 Euros in USD would be 116,279.07 (100,000/0.86).

When the invoice is still open at the period end say on Jan 31st, 2025, 100,000 Euros is valuated using spot rate valid. Assume period end rate between USD and Euro is 1:0.88, hence the equivalent value of 100,000 Euros in USD would be 113,636.36.

The difference between USD Value from Invoice Posting and the USD Value revaluated by system at period end i.e. 2,642.71 USD (116,279.07-113,636,36) is considered as unrealized foreign exchange gain.

| Invoice Posting on Jan 1st 2025 | | | | | Revaluation at Period End on Jan 31st 2025 | | | |
| Echange Rate Between USD and EURO is 1:0.86 | | | | | Echange Rate Between USD and EURO is 1:0.88 | | | |
Account	Dr/Cr Indicator	Amount in Document Currency (EURO)	Amount in Local Currency (USD)		Account	Dr/Cr Indicator	Amount in Document Currency (EURO)	Amount in Local Currency (USD)
Expense Account	Dr	100,000	116,279.07		Vendor Payable Account	Dr	0	2,642.71
Vendor Payable Account	Cr	100,000	116,279.07		Unrealized Gain	Cr	0	2,642.71

Figure 1: Financial Documents for Invoice Posting and Unrealized Foreign Exchange Gains during Revaluation at Period End in SAP S/4HANA.

Since revaluation at period end is unrealized, the most common practice is to reverse revaluation postings using 1st day in the next posting period i.e. Feb 1st, 2025 so that when financial statements are generated for Jan 2025, they reflect unrealized forex gains or losses.

| Reversal of Revaluation on 1st Day of Next Period i.e. Feb 1 2025 | | | |
Account	Dr/Cr Indicator	Amount in Document Currency (EURO)	Amount in Local Currency (USD)
Unrealized Gain	Dr	0	2,642.71
Vendor Payable Account	Cr	0	2,642.71

Figure 2: Reversal of Foreign Currency Valuation Gain at Period End in SAP S/4HANA

Some organizations may choose not to reverse revaluation postings. They calculate delta gains or losses using original posting, revaluations posted, and current value calculated using spot rate valid during the latest period end.

2. Realized foreign exchange gains or losses:

Realized gain or losses are the gains or losses that occur when the transaction is completed [2].

Example: Say the supplier invoice outstanding in the above example is paid on Feb 15th, 2025. Assume exchange rate between USD and Euro is 1:0.90 on Feb 15th, 2025, hence the equivalent value of 100,000 Euros in USD would be 111,111.11.

The difference between invoice and payment in USD value i.e. 5,167.96 (116,279.07-111,111.11) is considered as realized foreign exchange gain.

| Invoice Posting on Jan 1st 2025 | | | | | Payment Posting on Feb 15th 2025 | | | |
| Echange Rate Between USD and EURO is 1:0.86 | | | | | Echange Rate Between USD and EURO is 1:0.90 | | | |
Account	Dr/Cr Indicator	Amount in Document Currency (EURO)	Amount in Local Currency (USD)		Account	Dr/Cr Indicator	Amount in Document Currency (EURO)	Amount in Local Currency (USD)
Expense Account	Dr	100,000	116,279.07		Vendor Payable Account	Dr	100,000	116,279.07
Vendor Payable Account	Cr	100,000	116,279.07		Bank Account	Cr	100,000	111,111.11
					Realized Gain	Cr	0	5,167.96

Figure 3: Financial Documents for Invoice Posting and Realized Foreign Exchange Gains during Actual Payment in SAP S/4HANA.

Configuration of Foreign Currency Valuation in SAP S/4HANA:

1.   **Valuation Method:** Valuation Method determines how foreign currency valuation is performed during closing. It controls crucial parameters such as when to pick an item for valuation, document types and exchange rate types to be used for valuation, grouping of vendors, customers and General Ledger Accounts are needed etc [4].
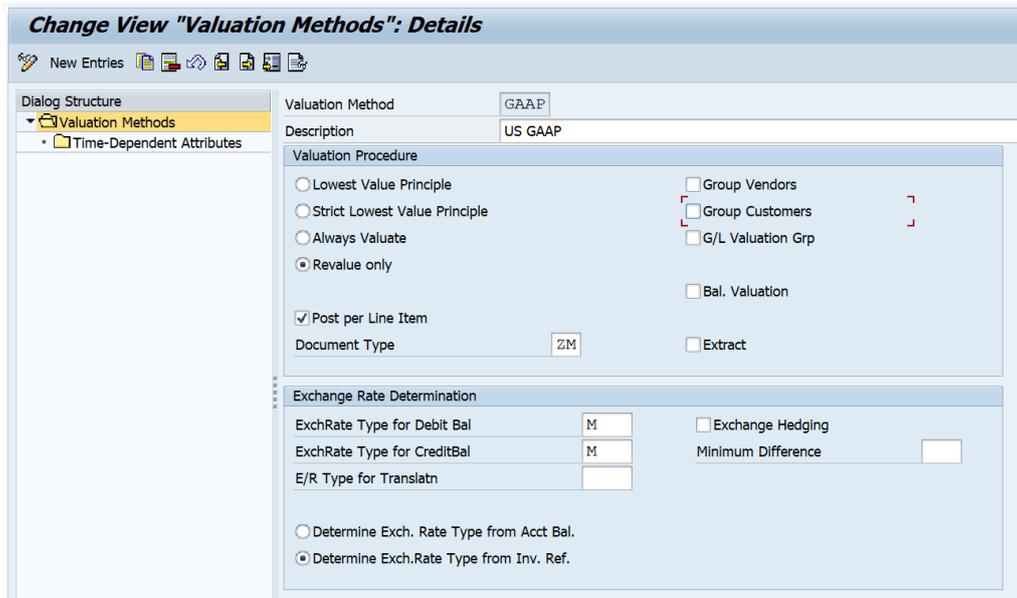
Figure 4: Set-up of Valuation Method which control crucial parameters for Foreign Currency Valuation in SAP S/4HANA.

2.   Valuation Area: Valuation Area helps system in determining the approach it should follow for valuation and the accounts to be used for posting unrealized gains or losses. Different valuation areas can be created and to be assigned with Valuation Methods so that multiple valuations for the same documents can be carried out as per the parallel reporting requirements [4].

Figure 5: Assignment of Valuation Area to Valuation Method in SAP S/4HANA.

3.   Assignment of Accounting Principles to Ledger Groups: Accounting Principles such as GAAP, IFRS are to be assigned to Ledger groups so that system knows which ledger group to be used for the financial postings based on the accounting principle identified.

Figure 6: Assignment of Accounting Principle to Ledger Group in SAP S/4HANA.

4.   Assignment of Valuation Area to Accounting Principle: Accounting Principles such as GAAP, IFRS are to be assigned to Valuation Area so that system can determine which Accounting Principle is tied with the Valuation Area entered while executing foreign currency valuation. This assignment indirectly helps in determining Ledger Groups through the above config [4].
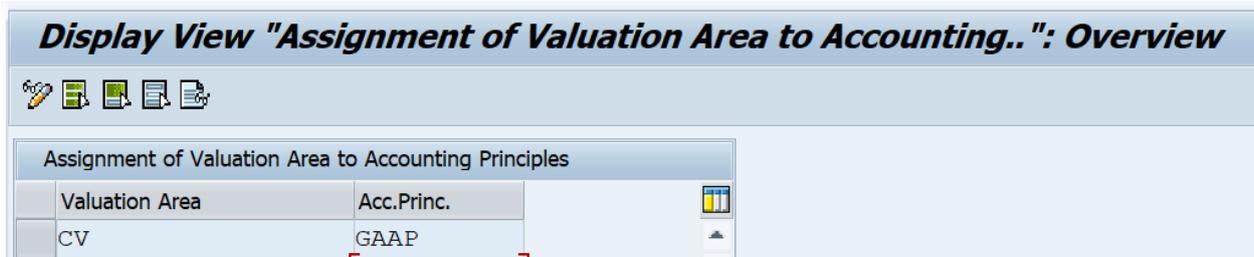
Figure 7: Assignment of Valuation Area to Accounting Principle in SAP S/4HANA.

5.   Automatic Account Determination for Foreign Currency Valuation Postings: General Ledger Accounts used for posting both unrealized and realized foreign exchange gains or losses are assigned here [3] [4].

Assignment of accounts can be classified into two parts [5].

a)   Assignment of General Ledger Accounts used for posting both realized and unrealized foreign exchange gains or losses for the accounts with transactions in foreign currency and managed with "Open Item Management" such as Customer Accounts, Supplier Accounts and Open Item Managed General Ledger Balance Sheet accounts. System valuates each item separately since these are open item managed [1].
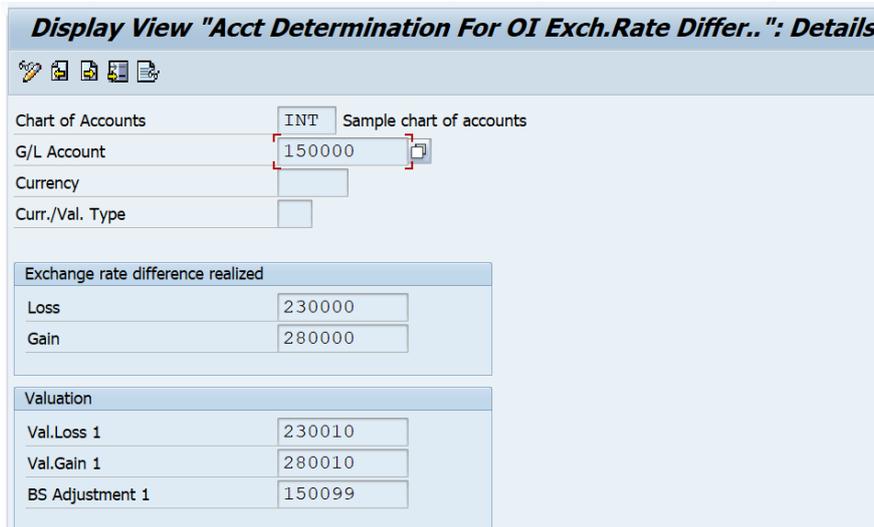

Figure 8: Automatic Account Determination for Open Item Managed GL Accounts in SAP S/4HANA.

b)   Assignment of general ledger accounts used for posting only unrealized foreign exchange gains or losses for the general ledger balance sheet accounts managed in foreign currency, but not managed with "Open Item Management" flag. System valuates only the balance of the GL Accounts [1].
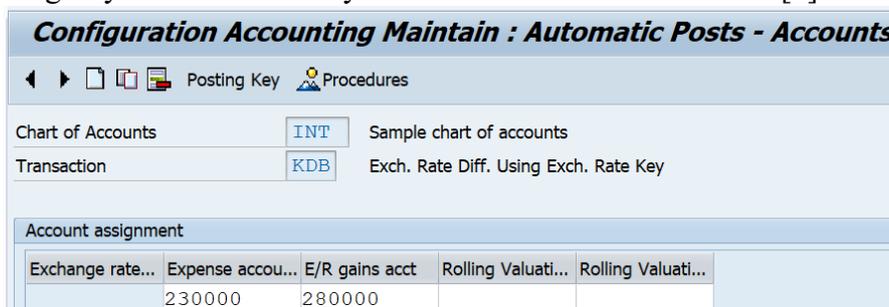

Figure 9: Automatic Account Determination for Non-Open Item Managed GL Accounts in SAP S/4HANA.

CONCLUSION:
Foreign currency valuation in SAP S/4HANA is a critical process that ensures accurate financial reporting and compliance with international accounting standards such as IFRS and GAAP. By leveraging the advanced

capabilities of the Universal Journal, real-time processing, and streamlined configuration options, S/4HANA enhances transparency, reduces reconciliation efforts and improves the efficiency of month-end and year-end closing activities.

With built-in automation, flexible valuation methods, and integration across financial modules, S/4HANA provides finance teams with greater control over foreign currency exposure and revaluation processes. Organizations that adopt best practices in currency valuation within S/4HANA are better equipped to manage financial risk, meet regulatory requirements, and make informed business decisions in a globalized economy. As financial environments grow increasingly complex, mastering foreign currency valuation in SAP S/4HANA is not just a technical necessity, it is a strategic imperative.

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