

OANDA FX Consulting for Corporations

Forex Hedge Accounting Treatment

Foreign Exchange Management
Creating Cost and Revenue Certainty



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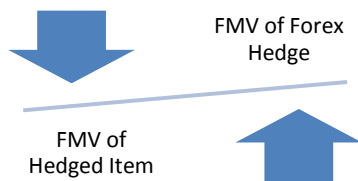
Introduction

Why Hedge?

Tapping into the global economy can be an effective way to expand your business. However, the success of your company's international business is tied to foreign exchange rate volatility, with constant rate fluctuations contributing to unexpected profits or losses. Forex hedging is meant to reduce the risk associated with a company's exposure to foreign currency balances and transactions. It is in your company's best interests to recognize these risks and formulate a hedging strategy to safeguard against currency fluctuations, thereby creating cost and revenue certainty for your foreign currency transactions.

What Is Hedging?

Basic Concept: The forex hedge's change in value is opposite to the change in value of the foreign currency exposure (hedged item). These two amounts offset each other to obtain cost certainty or revenue certainty.



All forex hedges are recorded on the balance sheet at their fair market value (FMV).

The items recorded on the other side of the journal entry depend on whether a forex hedge was designated for special accounting treatment (provided it met applicable criteria).

What Is Hedge Accounting?

Hedge accounting is a privilege, not a right. It is special accounting treatment for designated hedges that meet the required criteria outlined in the accounting standards.

In typical accounting treatment, forex hedges are carried on the balance sheet at their fair market value, with any changes in the carrying value impacting the income statement in each reporting period. Sometimes this typical treatment creates a timing mismatch in terms of when the forex hedge impacts earnings and when the hedged item impacts earnings. Forex hedge accounting, on the other hand, overrides this method of recording the impact on earnings in the reporting period because the gain/loss of the hedged items and the gain/loss of the forex hedge are recorded in earnings *at the same time*. In this way, hedge accounting reduces the earnings volatility caused by changes in foreign currency rates.

Forex hedging accounting treatment can be relatively easy or very complex, depending on the nature of your company's forex activities and its hedging products. In general, the fair market value of foreign currency hedges is recorded, often referred to as the "mark-to-market" position (the value of the forex hedge as at the financial reporting date). With forex carry spot hedges, the mark-to-market information is readily available. However, the more challenging component of recording the mark-to-market value is deciding how to record the other side of the journal entry. Some of the key standards related to forex hedge accounting include:

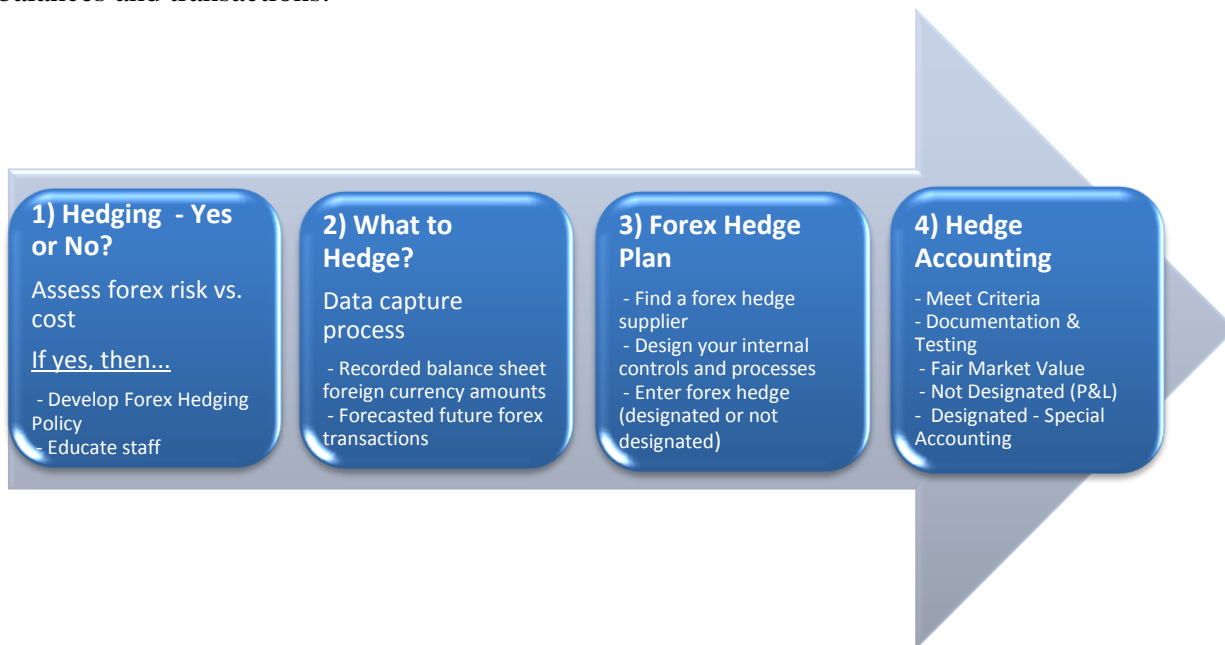
- International Accounting Standard 39 (IAS 39), Financial Instruments: Recognition and Measurement
- Financial Accounting Standard 133 (FAS 133), Accounting for Derivative Instruments and Hedging Activities (United States)

Who Is This Document Intended For?

CFOs, vice-presidents of finance, treasurers, controllers, and accountants can use this document to gain a basic understanding of hedge accounting.

What Are the Steps to Hedge Accounting?

The first step in the process is deciding whether to hedge your company's exposure to foreign currency balances and transactions.



1. Your company needs to assess its forex risk related to how much foreign currency exposure it has on the current balance sheet and on expected future transactions.
2. If your forex exposure exceeds your company's appetite for risk, then you will need to build a process for data capture. Each company will need to capture and validate its foreign currency exposures to enable effective forex hedging for managing its foreign currency risk. For a discussion, please see Appendix B – What to Hedge?.
3. While determining what to hedge (or after), you will need to create and implement processes and procedures to manage forex hedging and its special accounting treatment, including obtaining fair market values at each reporting period.
4. You require upfront documentation to designate a hedge for special accounting treatment. Throughout the life of the designated hedge, the accounting standards require ongoing effectiveness testing and adequate accounting systems to manage tracking when the hedged item impacts earnings in order to release the forex hedge's gain or loss to earnings.

Quick Background

Types of Forex Hedges

All *economic hedges* aim to manage foreign currency exposure, meaning they are undertaken for the economic aim of reducing potential loss from fluctuations in foreign exchange rates. However, not all hedges are designated for special accounting treatment. Accounting standards enable hedge accounting for three different designated forex hedges:

- A **cash flow hedge** may be designated for a highly probable forecasted transaction, a firm commitment (not recorded on the balance sheet), foreign currency cash flows of a recognized asset or liability, or a forecasted intercompany transaction.
- A **fair value hedge** may be designated for a firm commitment (not recorded) or foreign currency cash flows of a recognized asset or liability.
- A **net investment hedge** may be designated for the net investment in a foreign operation.

Types of Hedged Exposures

Prior to initiating a forex hedge and designating the hedge for special accounting treatment, you will need to capture and evaluate data on the foreign currency exposure, which typically falls into the following categories:

- foreign currency cash flows of a recognized asset or liability (recorded on the balance sheet),
- a firm commitment (not recorded on the balance sheet),
- a highly probable forecasted foreign currency transaction,
- a forecasted foreign currency intercompany transaction, or
- the net investment in a foreign operation.

A summary table of the types of hedged exposures and the applicable forex hedges follows. Each has its own accounting treatment, which will be discussed later in the document.

<i>Hedged Exposures</i>	<i>Economic Forex Hedge*</i>	<i>Fair Value Hedge</i>	<i>Cash Flow Hedge</i>	<i>Net Investment Hedge</i>
<ul style="list-style-type: none"> • Recorded asset or liability 	Yes - Common	Yes	Yes	n/a
<ul style="list-style-type: none"> • Firm commitment 	*	Yes – purchase or sale	Yes - purchase or sale	n/a
<ul style="list-style-type: none"> • Forecasted highly probable transaction 	*	n/a	Yes	n/a
<ul style="list-style-type: none"> • Net investment in foreign operations 	*	n/a	n/a	Yes

*An economic forex hedge may be used in any scenario; however, it will not necessarily achieve the desired accounting treatment and it may, in fact, create volatility in earnings.

Documentation and Accounting Overview

Before a company can designate a forex hedge as one that qualifies for the special hedge accounting, specific criteria must be met and documented. While each forex accounting hedge (cash flow, fair value, or investment) has unique accounting treatment, the guiding principle is the recognition of the gain/loss of the hedged items and the gain/loss of the forex hedge into earnings at the same time. That is, the *effective* portion of the forex hedge's gain/loss is recognized simultaneously on the income

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statement as the gains/losses from the hedged foreign currency item.

The *ineffective* portion of a forex hedge's change in value (for example, over-hedged amounts or interest carrying costs) must be recognized immediately in earnings. Similarly, any forex hedge that does not meet the criteria for designation or is not designated as a cash flow, fair value, or net investment hedge has its change in fair market value recognized immediately in earnings.

Proper documentation is critical to achieving hedge accounting treatment and must be supplied up front before a hedge is initiated. Further, prospective and retrospective assessments of a forex hedge must take place over its lifetime to ensure the hedge is effective. As noted previously, any ineffective portion of a forex hedge is recorded directly to the income statement.

The right to perform special hedge accounting for designated forex hedges must be earned by meeting the required criteria and documentation requirements. It is not an automatic right.

Summary Table

The table on the following page offers a high-level summary of forex hedges, journal entries, and their impacts to earnings.

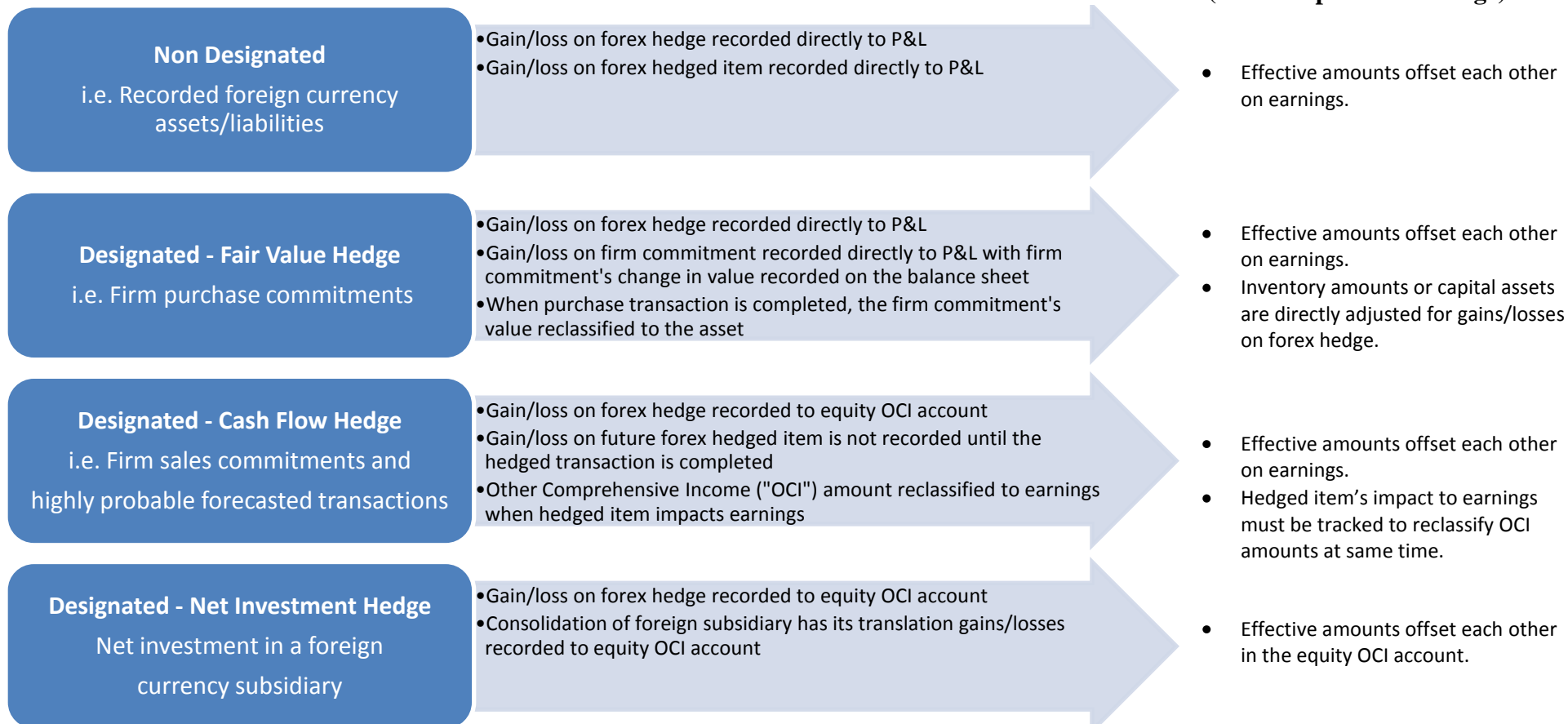
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Breakdown of Forex Hedges

Journal Entries

Earnings Impact (effective portion of hedge)



The ineffective portion of a forex hedge, as defined by accounting criteria, is recorded to earnings immediately.

Other forex hedge designations:

1. Fair value hedges may be designated for firm sales commitments. Similar impact as hedging a firm purchase commitment.
2. Cash flow hedges may be designated for firm purchase commitments; however, the reclassification of the OCI amounts to earnings to match the timing of the hedged item's impact to earnings may be more challenging.
3. While not typical, both cash flow hedges and fair value hedges may be designated for certain recorded foreign currency assets and liabilities. For example, foreign denominated debt.

Obtaining Special Accounting Designation for Your Forex Hedges

Hedge accounting is not an automatic right; it must be earned.

Once you have gathered your foreign currency exposure data, you then have to determine what forex hedge product will be used and whether the forex hedge will be designated for special accounting treatment. For our discussion, we will use a carry spot forex hedge; however, a forex forward contract could have been used as well. (In the two case studies at the end of this document, we detail the various accounting entries for a recorded foreign asset and a future firm commitment.)

To recap, the following hedges can be designated for special accounting treatment:

- A **cash flow hedge** may be designated for a highly probable forecasted transaction, a firm commitment (not recorded on the balance sheet), foreign currency cash flows of a recognized asset or liability, or a forecasted intercompany transaction.
- A **fair value hedge** may be designated for a firm commitment (not recorded) or foreign currency cash flows of a recognized asset or liability.
- A **net investment hedge** may be designated for the net investment in a foreign operation.

An economic forex hedge is not designated for special accounting treatment. The economic hedge would protect your economic position over time, but it may create earnings volatility. An economic forex hedge may be used to hedge any item; however, all the gains/losses on the hedge are immediately recorded into earnings.

Designated Hedges - US GAAP and IFRS Considerations

The ultimate goal for designated forex hedges is to record the effective portion of the gains or losses when the hedged item impacts earnings. The accounting treatment under IFRS, US GAAP, and Canadian GAAP is similar and depends on what you are hedging, and in which of the following categories it falls:

- **Cash flow hedges manage transaction risks.**

Cash flow hedges are instruments that hedge the variability of anticipated future foreign cash flows from a highly probable forecasted transaction, firm commitments, recorded assets, and liabilities. For example, the forex hedge's change in value will offset the change in value of a signed foreign sales contract when that contract is delivered in the future.

Cash flow hedges are used to hedge the variability of anticipated future foreign cash flows by **always converting the cash flow to a fixed amount**. For example, a cash flow forex hedge would not be applicable for foreign-denominated variable interest rate debt, since the interest variability would not be fixed. (A foreign interest rate swap—receive variable, pay fixed—could be used instead to hedge foreign-denominated variable interest rate debt.)

Note that a cash flow forex hedge could be used for foreign currency purchases or sales because the forex hedge would convert the variability of the amount paid or received in the foreign currency to a fixed amount in the reporting currency. As noted earlier, the effective portion of

the gain or loss on cash flow forex hedges will be recorded into the OCI account and the amount will be reclassified to earnings when the gain or loss on the hedged item impacts earnings. Note, the determination and the tracking of when to release the OCI amount to earnings for purchase commitments may become quite complex as the hedged item's impact to earnings may occur over an extended time, (for example, raw materials purchases that are used in a variety of finished products would impact earnings, only when the finished product has been sold to third parties).

The change in foreign sales value, when converted to the reporting currency, will be offset by the cumulative change in value of the forex hedge, assuming that a hedging relationship is documented and proven. If the cash flow hedge is not documented or not effective (outside an effective range of 80% to 125%) then changes in the forex hedge's value will flow through earnings. Consult your auditor on acceptable hedging effectiveness ranges and methods for proving their success.

- **Fair value hedges manage translation and transaction risks.**

Fair value hedges are instruments that hedge the value of an asset or a liability recorded on the balance sheet, or the value of a firm commitment. Therefore, changes in the value of the forex hedge **occur opposite on the balance sheet** to changes in the value of the recorded asset/liability or firm commitment.

A cash flow forex hedge has its gains and losses recorded in the OCI account and the amounts are subsequently reclassified to earnings when the hedged item impacts earnings, whereas, the gains and losses for a fair value forex hedge will be recorded in a manner that directly impacts the hedged item. For example, the hedged inventory purchase will have the inventory commitment recorded on the balance sheet prior to the receipt of the inventory. This inventory commitment value (change in fair market value of the firm commitment) will be reclassified directly to the inventory account, when the inventory is received. No additional tracking would be required to determine when the inventory eventually impacts earnings as part of cost of goods sold.

(See the Firm Commitments example on page 11 to compare the balance sheets for a purchase commitment hedged with a cash flow hedge vs. a fair value hedge.)

- **Net investment hedges manage investment risks.**

A net investment hedge is designed to minimize the foreign exchange effect on foreign investment. In this case, a change in the value of the net foreign assets/liabilities is adjusted to the OCI foreign exchange translation account, which is offset by the change in value of the forex hedge.

For designated forex hedges, the hedge contract must be with a third party supplier. Typically, each designated forex hedge will be a separate contract. However, there are some circumstances where a series of internal hedge transactions entered into between a parent company of a consolidated group and its subsidiaries will qualify as hedging instruments, if those internal hedges are offset to third-party hedging contracts (even if the third-party contract is completed on a net basis).

Types of Hedged Exposures

The types of foreign currency exposures typically fall into the following categories:

- Foreign currency cash flows of a recognized asset or liability recorded on the balance sheet
- Firm commitments (not recorded on the balance sheet)
- Highly probable forecasted foreign currency transactions
- Forecasted foreign currency intercompany transactions
- Net investments in a foreign operation

The hedging options for most of these hedging exposures are covered below.

Recorded Financial Asset or Liability (known or translation risk)

Not designated for special accounting treatment

Since most recorded financial assets and liabilities are revalued at each reporting date, an undesignated economic forex hedge is an efficient mechanism for managing this foreign currency exposure. If the item to be hedged relates to a recorded financial asset or financial liabilities (for example, accounts receivable or accounts payable), then the change in the fair value of the hedge will be recorded as a foreign exchange gain/loss on the income statement. The resulting change in the financial asset/liability will also be recorded as a foreign exchange gain/loss on the income statement. There is no need for special hedge accounting since the gains and losses on the hedge and the hedged item will offset each other on the income statement.

The benefits of not designating the hedge for special accounting treatment include no upfront documentation, no required ongoing testing (although hedge effectiveness testing is a prudent measure), and the foreign exchange position may be managed on a net basis (lowering the hedge transaction costs). Disadvantages may occur when the hedged item impacts earnings differently from when the forex hedge impacts earnings. For example, *available-for-sale financial assets* will have their changes in carrying amounts recorded in equity, which would create a mismatch in earnings timing, if the forex hedge was not designated.

Based on how well the hedged item and the forex hedge are effectively matched, the changes in carrying value would offset each other. The net amount on the income statement, therefore, represents the inefficiency of the hedging relationship or the portion of the asset/liability that was not hedged. In the latter part of this document, the first case study documents the accounting entries related to an economic forex hedge and the related financial asset when no designation has occurred.

Designated for special accounting treatment

The accounting standards allow either a fair value hedge or a cash flow hedge to be used to hedge recorded foreign currency assets and liabilities. The flexibility for the hedge designations allows flexibility for a company to manage its foreign-denominated debt (for example, converting a variable rate foreign debt into variable rate functional currency debt or converting a variable rate foreign debt into fixed rate functional debt). Under the definition of a cash flow hedge, the hedge locks in the future cash flow amounts. Therefore, the cash flow hedge of a foreign variable rate debt would need to hedge not only the forex exposure but also convert the variable interest rate to a fixed interest rate. However, a fair value hedge of a foreign variable rate debt would need to hedge only the forex exposure and maintain the exposure to variable interest rates.

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The benefit of designating the hedge for special accounting treatment is removing the volatility on the income statement, since effective portion of the forex hedge impacts earnings when the hedged item impacts earnings. The disadvantage of designating the hedge for special accounting treatment is the extra effort required for documentation, testing, and managing the information when the hedged item impacts earnings in order for the designated forex hedge to impact earnings at the same time. Both designated and non-designated forex hedges reduce potential loss from fluctuations in foreign exchange rates over time.

Firm Commitments – Fair Value or Cash Flow Hedge

The accounting treatment under IFRS, US GAAP, and Canadian GAAP allows either a cash flow hedge or a fair value hedge to be designated for foreign currency firm commitment. A firm commitment is a binding contract with an unrelated third party that specifies the quantity, price, and timeframe for the transaction (see Appendix A – Concepts and Terms). The ability to use either a cash flow hedge or a fair value hedge is useful as each transaction will create the same impact to earnings (opposite the impact of the hedged item); however, the accounting entries will be different.

The gain or loss on **cash flow forex hedges** will be recorded in the OCI account and the amount will be reclassified to earnings when the gain or loss on the hedged item impacts earnings. For certain transactions, tracking the impact to earnings by the hedged item may be challenging.

The gain or loss on **fair value forex hedges** will be recorded directly to earnings; however, the fair value of the hedged item will be adjusted at the same time. Similarly, the gain or loss on the designated hedged item will be adjusted to earnings at the same time. Typically, the effective portion of the fair value hedge recorded to earnings will be offset by the change in value of the hedged item. For example, the change in value of the hedged firm purchase commitment is recorded on the balance sheet as a purchase commitment. This value is opposite to the fair market value of the forex hedge. The change in value of hedged purchase commitments is recorded on the balance sheet.

These commitments or their change in value are not typically recorded on the balance sheet (only disclosed in the financial statement notes). However, since the firm commitments are part of a designated fair value hedge, the *change in commitment value* is recorded on the balance sheet. While this may sound confusing, it can be demonstrated in the Firm Commitment Accounting Scenario below.

Firm Commitment Accounting Scenario (Cash Flow vs. Fair Value Hedge)

The accounting treatment is better illustrated through the use of an example since the journal entries can seem, at times, to be counterintuitive. For example, consider a fair value forex hedge of a firm purchase commitment as compared to a cash flow forex hedge of a firm commitment of the same foreign currency exposure.

Assumptions

Assume that a US company has two separate firm commitments to purchase SGD \$1,150,000 of finished products from one Singapore supplier in two months and to purchase an additional SGD \$1,150,000 of finished products from a different Singapore supplier in two months. The current exchange rate for USD/SGD is 1.15.

The US company enters into two carry spot forex hedges to hedge out each of the purchase commitments of the SGD \$1,150,000 (two trades are completed that each short one million USD/SGD). Each of the forex hedges sells \$1,000,000 USD and buys \$1,150,000 SGD. One carry spot forex hedge is designated as a cash flow hedge and the other as a fair value hedge. We will assume

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all the required documentation is completed and the counterparty risk is not an issue. Further, both hedge effectiveness tests will be compared against the spot market. To simplify the example, we ignore the carry interest costs on the hedge transactions because these amounts will be directly recorded to earnings.

Assume the following exchange rates:

Timing	USD/SGD
Hedge Commencement	1.150
30 days later (first reporting date)	1.100
60 days later (purchase takes place and the payment is made)	1.050

At commencement, no entries would be required at the initial documentation stage because the fair market value (FMV) of the hedges would be nil.

At 30 days, the FMV of the forex hedges would be:

$$(1.150 - 1.100) \times \$1,000,000 \text{ USD} = \$50,000 \text{ SGD}$$

$$\$50,000 \text{ SGD} / 1.100 = \$45,454.54 \text{ USD.}$$

The purchase commitment and the future inventory cost would have increased by the same \$45,454.54 USD.

At 60 days, the FMV of the forex hedges would be:

$$(1.150 - 1.050) \times \$1,000,000 \text{ USD} = 100,000 \text{ SGD}$$

$$\$100,000 \text{ SGD} / 1.050 = \$95,238.09 \text{ USD}$$

The purchase commitment and the future inventory cost would have increased by the same \$95,238.09 USD over the original value.

At 70 days, it is assumed the inventory purchased is sold to US customers for USD\$1,300,000 cash.

Recorded Entries

The following entries would be recorded in USD:

CASH FLOW HEDGE			FAIR VALUE HEDGE		
	Account	Debit (credit)		Account	Debit (credit)
Transactions at 30 Days					
Forex Hedge FMV	Carry spot contract	45,454.54		Carry spot contract	45,454.54
	OCI – Other comprehensive income	(45,454.54)		Gain on Carry Spot Contract (P&L)	(45,454.54)
				Loss on purchase commitment (P&L)	45,454.54
				Purchase commitment	(45,454.54)
Transactions at 60 Days					
Forex Hedge FMV Increase	Carry spot contract	49,783.55		Carry spot contract	49,783.55
	OCI – Other comprehensive income	(49,783.55)		Gain on Carry Spot Contract (P&L)	(49,783.55)
				Loss on purchase commitment (P&L)	49,783.55
Purchase Product from Singapore for Cash	Inventory (\$1,150,000 SGD / 1.050 = \$1,095,238.09 USD)	1,095,238.09		Purchase commitment	(49,783.55)
	Cash	(1,095,238.09)		Inventory	1,095,238.09
Terminate Carry Spot Contract	Cash	95,238.09		Cash	(1,095,238.09)
	Carry spot contract	(95,238.09)		Cash	95,238.09
Reclassify Purchase	n/a			Carry spot contract	(95,238.09)
				Purchase Commitment	95,238.09
				Inventory	(95,238.09)

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Commitment	CASH FLOW HEDGE		FAIR VALUE HEDGE	
	Account	Debit (credit)	Account	Debit (credit)
Transactions at 70 Days				
Sales to US Customers	Cash	1,300,000.00	Cash	1,300,000.00
	Sales	(1,300,000.00)	Sales	(1,300,000.00)
	Cost of goods sold	1,095,238.09	Cost of goods sold	1,000,000.00
	Inventory	1,095,238.09	Inventory	(1,000,000.00)
Reclassify OCI account	OCI	95,238.09	n/a	
	Cost of goods sold	(95,238.09)		
Pros	The gain or loss on the forex hedge impacts earnings at the same time the hedged item impacts earnings. The gain or loss on the designated purchase commitment is not recorded on the balance sheet. The reclassification of the gain or loss in the OCI account on the designated sales commitments is relatively easy to track and record (as compared to purchase commitments.)		The gain or loss on the forex hedge impacts earnings at the same time the hedged item impacts earnings. Tracking the impact to earnings on purchases is relatively simple because the underlying purchase amount is adjusted and the impact to earnings naturally flows to earnings over time. This process will be substantially easier to manage fixed asset, inventory, or raw material purchases.	
Cons	Tracking the impact to earnings on purchases may become quite complex because it may occur over time.		Gain or loss on the designated purchase commitment is recorded on the balance sheet. (This is typically not a recorded asset or liability.)	

Conclusion

As shown in the above scenario, the two different hedge designations have the same impact to earnings at the same time; however, the recorded journal entries are different. Under the fair value hedge, the change in the value of the forex hedge is offset by recording the change in value of the purchase commitment on the balance sheet. While commitments nor their change in value are not typically recorded on the balance sheet, the desire to record the fair value of hedges on the balance sheet requires this unique treatment of recording the change in the value of the commitment on the balance sheet.

The above scenario is fairly simple, but the benefit of using fair value hedges for firm commitments is easier to see when you consider raw material purchases in a foreign currency. Tracking the earnings impact timing of **raw material purchases is much more complex under a cash flow hedge**, especially when taking into account complicating factors such as raw materials used in multiple products or sold to intercompany subsidiaries. With such complicating factors, the OCI amounts for cash flow hedges would become very complex to track and reclassify to earnings. On the other hand, a fair value hedge would adjust the raw material inventory directly, thereby reducing the need for future tracking to earnings.

Highly Probable Forecasted Forex Transactions (Transaction Risk – Cash Flow Hedge)

A cash flow hedge is used for highly probable future financial assets or liabilities (for example, a highly probable sales/purchase contract). The effective portion of the hedge's change in the fair value can be recorded in the equity section of the balance sheet under "OCI – Foreign Exchange Account", provided some strict criteria are met.

The cumulative hedge value recorded as OCI will be subsequently reclassified into earnings when the forecasted transaction affects earnings. As an example, consider a sales contract that drops in value by \$10,000 due to a change in exchange rates from the date the cash flow forex hedge commenced to the date the product was delivered. The sale is recorded in the income statement when the product is delivered. The reduced sales value is offset by the reclassification of the \$10,000 gain on the forex hedge (assuming an effective hedge) that had been recorded as OCI. The second case study at the end

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of this paper provides sample accounting entries related to cash flow hedges and the related future financial asset.

The reclassification into earnings of the OCI amounts may be fairly complex if the hedged item impacts earnings over a longer time frame. For example, a hedged intercompany product sale to a subsidiary will not have the OCI reclassified into earnings at the time of the intercompany sale. Instead, it will be reclassified into earnings when the subsidiary completes the product sale to third parties. For another example, the hedged foreign currency purchase of raw materials used for producing a finished product would not have the OCI amounts reclassified into earnings until the finished product is sold.

What Happens When a Highly Probable Foreign Transaction Ceases to be Highly Probable?

Consider the situation where a cash flow forex hedge was designated for a highly probable forecasted foreign currency purchase that later ceases to be highly probable (due to a regular review—at a minimum, at each reporting date—of the probability designation). From the time the hedge was designated, the OCI account has accumulated amounts.

The table below provides guidance on what to do when an assessment determines a change in the probability of the transaction occurring.

Current Assessment of the Transaction's Probability of Occurring	Impact on Hedge Accounting	Impact on the OCI Account Amounts
Highly Probable	Continue	<ul style="list-style-type: none"> Continue to accumulate amounts in the OCI account.
Reasonably Possible	Stop	<ul style="list-style-type: none"> Previous OCI Amounts remain in the OCI account and will be reclassified to income when the transaction impacts earnings. Stop accumulating new OCI amounts. Current gains/losses on the forex hedge are recorded directly to earnings.
Not Reasonably Possible	Stop	
Not Probable	Stop Reclassify	<ul style="list-style-type: none"> Reclassify previous OCI Amounts in the OCI account to earnings. Current gains/losses on the forex hedge are recorded directly to earnings.

Net Investment in Foreign Operation – Investment Risk

When hedging the foreign currency exposure of a net investment in a foreign operation, the gain or loss is reported in OCI (outside earnings) as part of the cumulative translation adjustment account. Similar to a cash flow hedge, you must document the hedging relationship in advance and prove the effectiveness of the hedging relationship on both a prospective and retrospective basis.

For details on the precise financial statement and financial statement note disclosure, refer to your particular GAAP.

Documenting Designated Hedging Criteria

To designate a forex hedge as a fair value hedge, a cash flow hedge, or a net investment hedge, certain criteria must be met. Consult your accounting professional to ensure that your documentation is adequate and avoid volatility in the income statement. If a designated hedge is not documented properly, all changes to the fair value of the forex hedge will be recorded directly on the income statement for each reporting period, as opposed to being recorded in the equity section under OCI for cash flow hedges.

Accounting Standards

IAS 39 Requirements

IAS 39 requires that all hedge relationships be documented prior to commencing forex hedging (in other words, before the hedge is first put in place). Such documentation must cover, among other things, the following points:

- How the hedge forms part of the entity's overall risk management policy.
- Details of the hedged item, hedging instrument, and the specific amount of risk being hedged.
- How the effectiveness of the hedge will be demonstrated, both prospectively and retrospectively.

FAS 133 Requirements

FAS 133 requires that all hedge relationships be documented in advance and cover the following:

- Identification of the forex hedge and the hedged item (for example, "Forex spot trade [sell or buy] and the related sales contract").
- The risk you are hedging (for example, changes in the foreign currency value).
- The accounting treatment you are applying (cash flow or fair value).
- The objective of the hedge (for example, to remove the volatility of future earnings related to changes in foreign currency exchange rates).
- How you are going to evaluate whether you have effectively hedged that risk (for example, using the dollar offset method comparing the change in the forex hedge vs. the change in the value of the future financial asset or liability).
- An assessment of the counterparty risk for the hedge provider.

Organizational Requirements

These hedging criteria are consistent with strong corporate governance and an approved forex hedging policy. Determining the hedging policy in advance and ensuring active monitoring during the hedging period will greatly increase management's understanding of forex hedging and its capacity for managing risk. Active monitoring is essential for detecting and limiting the impact of any erroneous hedges and their unintended consequences.

In both scenarios, for the IFRS or US GAAP, you need to measure the effectiveness of the hedge, typically at each reporting date, using either the dollar offset method or regression testing. While testing is required on both a retrospective and prospective view, you may use different methods for the retrospective test (dollar offset) and the prospective test (regression analysis). When building your regression tests, consult with your auditor to ensure you are meeting the auditor's guidelines on a properly structured regression test (for example, the minimum number of data points). Further you will

need to assess the counterparty risk from the hedge provider at each reporting date.

Conclusion

Accounting standards for foreign exchange hedging cover a variety of issues not addressed in this document. For example, consider a company's need to hedge vs. the fair market valuation needs for fixed rate foreign currency debt or floating rate foreign currency debt. Other items not discussed are intercompany transactions, foreign currency available-for-sale securities, and a large variety of other real-world transactions.

The flexibility allowed by accounting standards can be a challenge to determine a company's hedging choices. As a result, corporate forex hedging can be very complex and a tricky area for accountants.

Other Issues

The following are some additional points to consider before deciding on the best type of forex product for your company.

Forex Options

Often, financial institutions will try to sell a company on using currency options or more complex forex products to limit downside risk and offer the lure of participating in positive foreign exchange rate movements. This flexibility has a cost attached to it, either in the form of an upfront option cost or unfavourable foreign currency rates (spreads).

Here's how options can work: a company will purchase an option with a cash outlay to buy or sell a specified amount of one currency at a specific rate for a certain amount of time.

- If the rate moves significantly in the company's favor, the option is allowed to lapse (cost expensed) and the company can use the current forex market rate to complete the transaction, thereby taking advantage of the positive forex price movement (less the cost of the option).
- If the forex market moves against the company, then it can use the option price to effectively convert its asset or liability less the cost of the option. The cost of the option will include the time value of the interest differential (or interest carry cost) on the currency pair, a cost associated with the expected volatility of the currency pair, and a likely profit for the option provider.

The offer to share in the upside potential comes at a cost. Typically, banks charge an amount above their calculated option cost (mark-up) to make up for the fact that option pricing relies on historical forex volatility, which is never a precise method of predicting future market prices. Further, since banks must manage the risk associated with option pricing, they maximize profit on each transaction.

Accounting Ramifications for Forex Options

Using forex options is typically a form of hedging and speculating at the same time, and the results of the options should be segregated and reported separately. Some companies have treasury departments that can operate as profit centres, with an ability to make a profit over and above the cost of options or other types of trades. This ability is directly tied to reliable market information and knowledgeable staff.

On the other hand, currency options may be appropriate for hedging uncertain future transactions. As an example, the company may be bidding on a foreign sales contract to supply widgets. To protect itself from future foreign exchange rate movements before the contract is awarded, the company may consider entering into a forex option contract to sell a portion of the foreign currency in the future. (The cost of the forex option may be incorporated into the overall bidding costs.)

By adjusting the strike price on the option, you may be able to lower its upfront cost. The option will protect the company from extreme foreign currency movements, but it will come at a cost.

Further, by designating the forex option as protecting only the downside risk associated with fluctuations in foreign currency rates, the forex option may be used for hedging future transactions.

One more note of caution: be careful of exotic foreign currency options or exotic forward type products. Typically, these products are built with the promise of sharing in positive foreign exchange rate movements; however, you pay for this cost as it's typically factored into the forward rate.

Speculative Trading

Speculative trading can be very profitable or very costly. Some individuals make a fortune from currency speculation, while others (especially if not properly controlled or monitored) cause massive losses for their employers.

Regardless of the speculative outcome, the results must be captured and reported separately. As an added measure of caution, ensure there is proper segregation of duties between those authorizing the speculative trades and those reporting on their profitability. Finally, note that margin accounts outside existing banking credit relationships are an excellent way to limit speculative losses.

We do not recommend companies engage in foreign currency speculation unless they have forex trading experts on staff and the companies truly understand and manage the risks associated with forex speculation. We would prefer to see companies focus on what they excel in and avoid businesses they do not understand such as forex speculation.

Additional Complexity

There are many other complex issues faced by a corporation engaged in foreign exchange hedging. For example, the maturity date for a transaction can become an issue—it must be estimated as part of the documentation requirements, but transaction dates extending two months past their original estimate may no longer qualify for special hedge accounting treatment.

Disclaimer

This document offers a high-level overview of some key aspects of forex hedge accounting treatment; it does not provide specific advice for any particular company. As always, consult your local accounting professional for specific guidance on your company's situation and your applicable Generally Accepted Accounting Principles (GAAP). *Neither OANDA nor any of its employees accept any liability whatsoever for any loss or damage, however caused, arising from the use of this Forex Hedge Accounting Treatment document.*

We hope this document has helped clarify some of the basics of foreign exchange hedging for corporations. If you have further questions or concerns, please do not hesitate to contact us.

Case Study #1- Economic Forex Hedge – Not Designated – Accounting Entries

Company: US Gadget, a US dollar reporting company with sales in Europe.

Scenario: US Gadget completed a sale to a European customer for 100,000 euros on December 15 and expects to collect the euro receivable in 45–65 days. The current EUR/USD exchange rate is 1.4677/1.4678. (The first amount listed is the sell rate and the second amount listed is the buy rate. The first currency listed is known as the quote currency and always equals 1. In this case, therefore, you would **sell** 1 EUR and **buy** 1.4677 USD.)

Outcome: US Gadget's 100,000 euro sale is equal to USD\$146,770. To protect the future value of this receivable, US Gadget enters into a spot transaction on an online forex trading platform, selling the EUR/USD currency pair today at 1.4677 and locking in the future value of the \$100,000 euro receivable.

We will assume for the entire transaction timeframe that the interest rates are as follows:

Currency	Deposit Rate	Lending Rate
EUR	3.90%	4.35%
USD	4.15%	4.70%

When using any forex hedging instrument to hedge out future prices, you will be charged (or potentially receive) the difference in interest rates between the deposit rate (currency purchased) and the lending rate (currency sold). This interest differential or interest carry cost is charged directly to your account when using carry spot transactions to hedge. If you use forex forwards, forex options, or other products, then the interest differential is factored into the forex rate that you receive on the forex forward. The interest differential will always be charged to you, whether directly or, when included in the forex rate, indirectly.

December 15 - Record the Sale and the Economic Forex Hedge

Record the \$100,000 euro sale and the forex hedge made through a spot transaction on FXTrade.

Account	Date	Foreign Currency Euros – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
Accounts receivable	Dec 15	100,000.00	146,770.00
Sale	Dec 15	(100,000.00)	(146,770.00)
Record the sale :			
forex hedge (balance sheet) *	Dec 15		(10.00)
forex hedge cost (loss on foreign exchange) *	Dec 15		10.00
* This is the cost of placing the forex hedge (difference in sell and buy rate for the currency pair: 1.4677-1.4678)			

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A forex hedge will cost the difference in the sell and buy rates for the currency pair, as well as the applicable interest differential between the deposit rate and lending rate for the currency pair charged over the time period.

December 31 - Reporting Period

Assume the US dollar has strengthened over the last 15 days, rising to a EUR/USD rate of 1.4021/1.4022. You now need to record the changes in the fair value of the asset and the forex hedge.

Account	Date	Foreign Currency Euros – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
Accounts receivable	Dec 31		(6,560.00)
Loss on foreign exchange	Dec 31		6,560.00
Record the reduction in value of accounts receivable $((1.4021 - 1.4677) * 100,000)$.			
Forex hedge (balance sheet) *	Dec 31		6,560.00
Gain on foreign exchange *	Dec 31		(6,560.00)
* The gain in value of the forex hedge $(1.4022 - 1.4678)$. Note: You need to use the buy rate for the mark-to-market value on the forex hedge as this is the rate that will be used to close it out.			
Interest expense **	Dec 31		0.35
Cash (USD) **	Dec 31		(0.35)
** The interest differential on the retail forex platform's carry spot trade for 16 days: EUR interest paid (sold currency) = $16/365 * 4.35% * (100,000) = (190.68)$ Convert EUR interest to USD = $(190.68) * 1.4021 = \$(267.35)$ USD USD interest received (purchased currency) = $16/365 * 4.15% * (146,770) = \267.00 USD Net interest expense $(267.00 - 267.35) = \$(0.35)$			

In this example, US Gadget has no foreign currency gain or loss on its income statement. Although the accounts receivable decreased by \$6,560, this was offset by the gain in value of the forex hedge, meaning that US Gadget effectively managed its risk of currency fluctuations. They will record \$0.35 in interest expense for the period, which is the interest differential of the forex hedge. The interest differential will depend on the interest rates of each currency in the pair.

February 10 - Collect the receivable

On February 10 US Gadget collects its accounts receivable and converts the euros to US dollars. With the euro receivable collected, US Gadget closes out the forex hedge on the retail forex trading platform. Assume the current exchange rate is EUR/USD = 1.4130/1.4131.

Account	Date	Foreign Currency Euros – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
Accounts receivable	Feb 10		1,090.00
Gain on foreign exchange	Feb 10		(1,090.00)
Record the gain in value of accounts receivable $((1.4130 - 1.4021) * 100,000)$			

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forex hedge (balance sheet)	Feb 10		(1,090.00)
Loss on foreign exchange	Feb 10		1,090.00
Record the loss in the value of the forex hedge (1.4131 - 1.4022).			
Interest expense	Feb 10		6.24
Cash (USD)	Feb 10		(6.24)
Record the interest differential on the retail forex platform's carry spot trade for 41 days. EUR interest paid (sold currency) = $41/365 * 4.35\% * (100,000) = (488.63)$ Convert EUR interest to USD = $(488.63) * 1.4130 = \$(690.43)$ USD USD interest received (purchased currency) = $41/365 * 4.15\% * (146,770) = \684.19 USD Net interest expense $(684.19 - 690.43) = \$(6.24)$			
Accounts receivable	Feb 10	(100,000.00)	(141,300.00)
Cash (EUR)	Feb 10	100,000.00	141,300.00
Collect the accounts receivable: 100,000 euros at a EUR/USD rate of 1.4130 $(146,770.00 - 6,560.00 + 1,090.00 = 141,300.00)$			
Cash (EUR)	Feb 10	(100,000.00)	(141,300.00)
Cash (USD)	Feb 10		141,300.00
Convert euros to US dollars (assuming the same exchange rate)			
forex hedge (balance sheet) (-10.00+6,560.00-1,090.00)	Feb 10		(5,460.00)
Cash USD	Feb 10		5,460.00
Close out the forex hedge (1.4131 - 1.4677)			

In the end, US Gadget managed foreign exchange fluctuations through forex hedging. Any accounts receivable losses were offset by forex hedge gains. In total, US Gadget paid \$16.60 (0.011% of the USD value) to cover off any foreign currency fluctuations. Alternatively, if they had not hedged, the loss on foreign exchange would have cost them \$5,470 $(-6,560.00 + 1,090.00)$, or 3.73% of the USD value. In fact, the actual loss might have been even higher due to unfavourable EUR/USD exchange rates charged by their local bank.

Notes:

- This example simplified the interest differential. The actual interest amount is charged daily as opposed to the reporting period dates or transaction dates in the example.
- The example assumes that US Gadget is able to convert euros to US dollars at spot market rates, whereas the cost of the conversion would typically be higher. In addition to local banks, there are foreign currency international wire companies, which offer international funds transfers at close to interbank rates.
- It is assumed that US Gadget has sufficient margin dollars in their online forex broker account at all times to maintain the forex hedge at spot market rates. By regulation, online forex brokers must use margin accounts to guarantee financial security to their customers. Through the use of margin accounts, online forex brokers can offer greater transactional efficiency and avoid the cost of credit checks and ongoing monthly credit monitoring. Alternatively, if online forex

brokers offered credit to their clients, then the cost of credit management and written-off accounts would be charged to all its customers through higher rates and set-up fees.

- The example excludes the interest earned on the funds held at the online forex broker margin account. Ensure your online forex broker pays competitive interest on all outstanding margin balances.

Summary

There are a number of benefits when you use the carry spot market to complete an economic forex hedge, the chief benefit being flexibility. Some online forex broker platforms let you choose the exact amount to hedge—if not 100,000 euros, then 95,022 or 45,581, or any amount you need. The date when the account receivable is collected does not pose any difficulty when setting the hedge as the carry spot trade may be closed at any time, whether earlier or later than initially anticipated. Further, if the receivable is collected in two payments, you can close out the carry spot hedge in stages.

If US Gadget had used forex forwards, on the other hand, then the hedging amount would have had to match the contract size (100,000 euros) and the forex forward date of 60 days would likely not have matched the actual date when the currency was collected or converted.

Case Study #2 - Cash Flow Hedge – Designated – Accounting Entries

Company: US Gadget, a US dollar reporting company with future sales in Canada.

Scenario: On September 1, US Gadget enters into a sales contract to deliver CAD \$250,000 worth of product to a Canadian customer on or about January 20. The current USD/CAD exchange rate is 1.0254/1.0257. (The first amount listed is the sell rate and the second amount listed is the buy rate. The first currency listed is known as the quote currency and always equals 1. In this case, therefore, to **buy** 1 USD, you would pay 1.0257 CAD—you are buying USD with CAD.)

In the previous case study, the EUR/USD pair was a **sell** transaction (sell EUR and buy USD). Since the placing of the USD is reversed for this pair (USD/CAD), you will be entering a **buy** transaction (buy USD and sell CAD). Both transactions are effectively buying US dollars, but in forex transactions you must be aware of which currency is the first in the pair.

Outcome: The future sales contract for CAD \$250,000 is equal to USD \$243,735.99. To protect the future USD value of this receivable, US Gadget enters into a carry spot transaction on an online forex platform, buying the USD/CAD currency pair today at 1.0257 and locking in the future value of the \$243,736 USD receivable.

We will assume for the entire transaction timeframe that the interest rates are as follows:

Currency	Deposit Rate	Lending Rate
CAD	4.10%	4.55%
USD	4.15%	4.70%

When using any forex hedging instrument to hedge out future prices, you will be charged (or potentially receive) the difference in interest rates between the deposit rate (currency purchased) and the lending rate (currency sold). This interest differential or interest carry cost is charged directly to your account when using carry spot transactions to hedge. If you use forex forwards, forex options, or other products, then the interest differential is included in the forex rate that you receive on the forex forward. The interest differential will always be charged to you, whether directly or, when included in the forex rate, indirectly.

September 1 - Enter Into the Cash Flow Forex Hedge

We are making the assumption that you have documented the requirements for the forex hedge to qualify for a hedging relationship under accounting guidelines by completing the following activities:

- Identify the forex hedge (buy USD/CAD as a carry spot trade on a retail forex platform)
- Identify the hedged item (the CAD sales contract)
- Specify the risk that you are hedging (the changes in the foreign currency value)
- Outline the accounting treatment that you are applying (cash flow)
- State the objective of the hedge (for example, to remove the volatility of future earnings related to changes in foreign currency exchange rates)
- State how you are going to evaluate whether you have effectively hedged that risk (dollar offset)
- Evaluate and document the counterparty risk related to the retail forex platform

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Since some retail forex platforms allow hedges of any amount, and US Gadget has 100% confidence in this delivery, then they can hedge the exact amount of USD \$243,736.

Account	Date	Foreign Currency CAD – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
forex hedge (balance sheet)	Sep 1		(71.29)
forex hedge cost (loss on foreign exchange)	Sep 1		71.29
Record the cost of hedging USD \$243,736 (the difference between the sell and buy rates for the currency pair, 1.0254-1.0257). Convert the Canadian dollar loss to USD: $(73.12) / 1.0257 = (71.29)$ USD.			

A forex hedge will cost the difference in the sell and buy rates of the currency pair, as well as the applicable interest differential between the deposit rate and lending rate of the currency pair charged over the time period. In this example, the interest differential is recognized each period.

September 30 - Reporting Period

Assume the USD has fallen over the last 29 days, and by September 30 the USD/CAD exchange rate is 1.0111/1.0114. You now need to record the changes in fair value of the forex hedge.

Account	Date	Foreign Currency CAD – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
forex hedge (balance sheet)	Sep 30		(3,446.14)
Other comprehensive income (balance sheet – equity section)	Sep 30		3,446.14
Record the loss in value of the forex hedge: Calculate the change in the Canadian dollar: $((1.0111 - 1.0254) * 243,736 = (3,485.42)$ CDN Convert the Canadian dollar loss to USD: $(3,485.42) / 1.0114 = (3,446.14)$ USD Note: Use the sell rate for the mark-to-market amount on the forex hedge as this is the rate used to close out the original forex hedge. On the retail forex platform, the mark-to-market amount is typically calculated automatically in the currency of your account (your reporting currency).			
Interest expense	Sep 30		89.92
Cash (USD)	Sep 30		(89.92)
Record the interest differential of the spot trade on the retail forex platform for 29 days. CAD interest paid (sold currency) = $29/365 * 4.55% * (250,000.02) = (903.77)$ CAD Convert the CAD interest paid to USD = $(903.77) / 1.0114 = (\$893.58)$ USD USD interest received (purchased currency) = $29/365 * 4.15% * 243,735.99 = \803.66 USD Net interest expense $\$803.66 - \$893.58 = \$89.92$			

In this example, US Gadget has no foreign currency gain or loss on its income statement. Although the value of the future sale to the Canadian customer has increased, this value is offset by the loss in value of the forex hedge, which is recorded as “other comprehensive income” on its financial statements. US Gadget has effectively managed the risk of currency fluctuations and would record \$89.92 in interest

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expenses for the period (the interest differential of the forex hedge). The amount of the interest differential depends on the interest rates of each currency in the pair.

December 31 - Reporting Period

Assume the USD has increased in value over the last quarter (92 days), and by December 31 the USD/CAD exchange rate is 1.0355/1.0358. You need to record the changes in fair value of the forex hedge.

Account	Date	Foreign Currency CAD– Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
Forex hedge (balance sheet)	Sep 30		5,741.61
Other comprehensive income (balance sheet – equity section)	Sep 30		(5,741.61)
Record the gain in value of the forex hedge (1.0355 – 1.0111). Calculate the change in the Canadian dollar: $((1.0355 - 1.0111) * 243,736 = \$5,947.16 \text{ CDN}$ Convert the Canadian dollar gain to USD: $5,947.16 / 1.0358 = \$5,741.61 \text{ USD}$ Note: Use the sell rate for the mark-to-market amount on the forex hedge as this is the rate used to close out the original forex hedge.			
Interest expense	Sep 30		219.28
Cash (USD)	Sep 30		(219.28)
Record the interest differential of the spot trade on the retail forex platform for 92 days. CAD interest paid (sold currency) = $92/365 * 4.55\% * (250,000.02) = (2,867.12) \text{ CAD}$ Convert the CAD interest to USD: $(2,867.12) / 1.0358 = \$(2,768.83) \text{ USD}$ USD interest received (purchased currency): $92/365 * 4.15\% * 243,735.99 = \$2,549.55 \text{ USD}$ Net interest expense: $2,549.55 - 2,768.83 = \$219.28$			

In this example, US Gadget has no foreign currency gain or loss on its income statement. Although the value of the future sale to the CAD customer has decreased, this was offset by the gain in value of the forex hedge, which is recorded as “other comprehensive income” on the financial statements. US Gadget has effectively managed the risk of currency fluctuations and would record \$219.28 in interest expense for the period (the interest differential of the forex hedge). The amount of the interest differential depends on the interest rates of each currency in the pair.

Product Delivered and Sale Completed – January 18

On January 18 US Gadget sells its product to the Canadian customer for \$250,000, and continues with the forex hedge on the online forex platform until the Canadian dollars have been collected. Assume the US dollar continues to strengthen to a current exchange rate of USD/CAD = 1.0413/1.0416.

Account	Date	Foreign Currency CAD – Debit (Credit)	Reporting Currency US Dollar – Debit (Credit)
Accounts receivable	Jan 18	250,000.00	240,015.36
Sale	Jan 18	(250,000.00)	(240,015.36)
Record the sale on the books			
forex hedge (balance sheet)	Jan 18		1,357.21

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Other comprehensive income (balance sheet – equity section)	Jan 18		(1,357.21)
Record the gain in value of the forex hedge: $(1.0413 - 1.0355)$ Calculate the change in the Canadian dollar: $((1.0413 - 1.0355) * 243,736 = \$1,413.67 \text{ CDN}$ Convert the Canadian dollar gain to USD: $1,413.67 / 1.0416 = \$1,357.21 \text{ USD}$			
Interest expense	Feb 10		39.74
Cash (USD)	Feb 10		(39.74)
Record the interest differential of the spot trade on the retail forex platform for 18 days. CAD interest paid (sold currency): $18/365 * 4.55\% * (250,000.02) = \$(560.96) \text{ CAD}$ Convert the CAD interest paid to USD: $(560.96) / 1.0416 = \$(538.56) \text{ USD}$ USD interest sold (purchased currency) = $18/365 * 4.15\% * (243,735.99) = \498.82 USD Net interest expense $498.82 - 538.56 = \$39.74$			
Other comprehensive income (balance sheet – equity section)	Jan 18		3,652.68
Income statement	Jan 18		(3,652.68)
Reclassify the other comprehensive income amount on the balance sheet to the income statement when the sale has been completed. Previous transactions were: Sep 30: \$3,446.14 Dec 31: (5,741.61) Jan 18: <u>(1,357.21)</u> Total: (3,652.68)			

In the end, US Gadget was able to manage foreign exchange fluctuations using forex hedging with retail forex platform. Any losses in value of the sales contract were offset by gains in value of the forex hedge. In the end, US Gadget paid \$420.23 (or 0.17% of the sales value) to manage foreign currency fluctuations over a period of 139 days. $(\$71.29 + 89.92 + 219.28 + 39.74)$

Notes:

- This example simplified the interest differential. The actual interest amount is charged daily as opposed to the reporting period dates or transaction dates in the example.
- The example assumes that US Gadget is able to convert CAD to USD at spot market rates, whereas the cost of the conversion would typically be higher. In addition to local banks, there are foreign currency international wire companies, which offer international funds transfers at close to interbank rates. It is assumed that US Gadget has sufficient margin dollars in their online forex platform account at all times to maintain the forex hedge at spot market rates. By regulation, online forex brokers must use margin accounts to guarantee financial security to their customers. Through the use of margin accounts, online forex brokers can offer greater transactional efficiency and avoid the cost of credit checks and ongoing monthly credit monitoring. Alternatively, if online forex brokers offered credit to their clients, then the cost of credit management and written-off accounts would be charged to all its customers through higher rates and set-up fees.
- The example excludes the interest earned on the funds held at the online forex broker margin account. Ensure your online forex broker pays competitive interest on all outstanding margin balances.

Summary – Benefits of Using Spot Trading

- The actual interest differential is charged—there is no mark-up, unlike forex forwards and forex options, which often bury the additional costs or commissions in their rates.
- There are tight spreads between the sell and buy rates on currency pairs, which lower the costs of foreign currency management.
- There is flexibility in the amount hedged. You are not restricted to hedging specific amounts like \$100,000. For economic forex hedges (translation risk of known assets/liabilities), it's easy to make adjustments to the net position each month/week. You can either add additional forex hedge amounts to the amount outstanding, or close a portion out, to ensure the notional value of the forex hedge matches the net foreign currency exposure on the assets or liabilities.
- There is complete flexibility in the timing of the hedge. If the contract delivery date is earlier or later than anticipated, no additional work is required. Conversely, if US Gadget used forex forward contracts, they would have had to contact their forex forward provider to sell the contract early or extend it (likely at a cost).
- When using a spot transaction to hedge forex exposure, the dollar offset amount is easy to calculate: the change in the value of the future contract equals the change in the value of the forex hedge. The interest differential is charged directly to the income statement over the life of the forex hedge. In this example, the future sales contract had been signed and the quantity of product to be delivered was virtually guaranteed. If the final amount was not completely known, US Gadget might choose to designate two different hedging relationships: the first for 50% of the contract value and the second for 35% of the contract value. To account for uncertainty, the company may decide not to hedge the final 15% of the contract, especially if there's a history of fluctuation in final delivery amounts.

Appendix A – Concepts and Terms

To assist our discussion of forex accounting, we will review some concepts and terms.

Accounting Currency Types

Functional Currency is used to record the transactions and report their financial results for the company. Typically, the company conducts a majority of its business activities in the functional currency (often it's the local currency where the company operates). For example, a Japanese company operating in Japan would likely use the Japanese Yen as its functional currency.

Reporting Currency is the functional currency of the parent organization. We have introduced this term to clarify which functional currency is ultimately being used for the financial reporting of the parent company.

Foreign Currency is recorded for specific transactions that are not in the functional currency. For example, if a Japanese company purchases computer chips from a Singapore supplier priced in Singapore dollars, the foreign currency would be Singapore dollars.

Risks

Hedging Risks: Accounting standards outline a number of risks that may be hedged. For example, market price risk, credit risk, foreign currency risk, and interest rate risk.

Foreign Currency Risk: This type of risk arises from the change in price of one currency against another. When companies have foreign currency assets (for example, cross-border sales or business operations across national borders) or foreign currency liabilities (for example, imports), they face currency risk if their foreign currency exposures or positions are not hedged.

Transaction Risk includes the current and prospective risk to earnings that exchange rates will change unfavourably over time for transactions already entered into (but not completed), or for future transactions in which the firm is likely to have a commitment in a foreign currency. The exchange rate risk increases proportionately with the length of time between entering into a contract and settling it (because there is more time for the exchange rate to fluctuate).

Translation Risk is proportional to the amount of assets held in foreign currencies. It is a form of currency risk associated with the valuation of balance sheet foreign currency assets and liabilities between financial reporting dates. At each reporting date, the balance sheet and income statement reflect the change in value of the foreign currency assets and liabilities due to the change in foreign exchange rates.

Types of Forex Hedges

Economic hedges are transactions that hedge the value of:

- a foreign currency asset or liability recorded on the balance sheet
- the value of a firm commitment
- the value of a forecasted transaction

Changes in the value of the forex hedge must occur opposite to changes in the value of the recorded asset/liability, firm commitment, or forecasted transaction.

Economic hedges include those that are **designated** for accounting purposes and those that are **not**

designated.

Hedges that are not designated: If an economic forex hedge is **not designated**, properly documented, or effective, any change in its value must be recorded directly to the income statement. (However, the change in value of the forecasted foreign currency transaction may not be recognized in the earnings until a later reporting period.)

Hedges that are designated: These hedges include **cash flow, fair value, or net investment hedges** that meet the documentation, effectiveness, and testing requirements of the accounting standards. A designated hedge must be described in such a manner that it is clearly evident that the forex hedge is matching the hedged item.

The documentation must clearly describe when the forecasted transaction occurs; specifically, there can be no ambiguity over whether the transaction that occurred is the documented transaction. For example, if the forecasted transaction for a cash flow hedge is described as the “last” 15,000 units sold in a quarter, there may be ambiguity over which transactions were hedged. The company would not know when the sales occurred, or if the sales were indeed the last 15,000 sold during the quarter. It is better to document the forecasted transaction as the “first” 15,000 units sold during the quarter.

For both fair value hedges and cash flow hedges, any similar foreign currency transactions may be grouped; for example, the sales in a particular quarter or in a geographic region. However, the grouped transactions must not include both cash inflows and cash outflows. For example, a designated cash flow hedge may not be for the highly probable USD transactions to take place in a quarter for a European company when the transactions include both sales to the USA and smaller offsetting USD purchases. Instead, the European company may choose to create two separate cash flow hedges or more likely only hedge that portion of the USD sales that exceeds the natural hedge of expected USD purchases.

Cash Flow Hedges are transactions that hedge the variability of anticipated future foreign cash flows from a forecasted transaction (for example, the forex hedge's change in value will offset the change in value of a signed foreign sales contract when that contract is delivered in the future). Cash-flow hedges may be used to hedge the variability of anticipated future foreign cash flows on recorded assets and liabilities.

Fair Value Hedges are transactions that hedge the value of an asset or a liability recorded on the balance sheet, or the value of a firm commitment. Changes in the value of the forex hedge must occur opposite to changes in the value of the recorded asset/liability/firm commitment.

Net Investment Hedges are transactions designed to minimize the foreign exchange effect on foreign investment. In this case, a change in the value of the net foreign assets/liabilities is adjusted to the Other Comprehensive Income (“OCI”) foreign exchange translation account, which is offset by the change in value of the forex hedge.

Foreign Currency Exposures

A **Firm Commitment** is a binding agreement between unrelated parties, which is usually legally enforceable. The agreement specifies all the key terms, including quantity, fixed price, and timing of the transaction. The fixed price may be either in the functional currency or the foreign currency. The binding agreement includes sufficient non-performance penalties such that performance is probable. Firm commitments that are not recorded on the balance sheet may qualify for either fair value hedges or cash flow hedges.

Probability of a Forecasted Transaction. Cash flow hedging has a specific requirement that a

transaction must be highly probable or likely to occur. Probability requires a significantly greater likelihood of occurring than “more likely than not”. When assessing this requirement of probability, one should consider factors such as the following:

1. The frequency of similar historical transactions.
2. Your company's financial ability to complete the transaction.
3. Your company's operational ability to complete the transaction.
4. Your company's commitment of resources for the foreign transactions (for example, manufacturing capacity, access to finished product components).
5. The financial impact if the transaction did not take place.
6. The length of time until a forecasted transaction is projected to take place and the amount of the forecasted transaction. The longer the time frame and the greater the amount, the less likely the transaction will occur. Consideration should also be given to the customer's, suppliers', or market's ability to complete the forecasted transaction.

Hedge Testing

Hedge Effectiveness Assessment: A forex hedge effectiveness assessment will be determined and documented when the forex hedge is designated for hedge accounting treatment. The documentation should consider how the critical terms of the hedged item and the forex hedge match up, especially the amounts and the timing (expected foreign currency payment/receipt date as compared to the expiry date of the forex hedge). Further, the counterparty risk must be considered as part of the assessment.

Forecasted transactions must meet the high probability requirement. For example, the assessment should include a clause such as, “no ineffectiveness is anticipated because the notional amount and the maturity date of the carry spot trade hedge matches with the forecasted accounts payable balance and due date.”

Hedge Effectiveness Measurement: Subsequent to the hedge designation, hedge effectiveness must be measured at each reporting date. That is, the change in foreign sales value, when converted to the reporting currency, will be offset by the cumulative change in value of the forex hedge, assuming that a hedging relationship is documented and proven.

If a cash flow hedge is not documented or not effective (that is, outside an effective range of 80% to 125%), then changes in the forex hedge's value will flow through earnings. Consult your auditor on acceptable hedging effectiveness ranges and methods for proving their success.

The method of documentation has an impact on determining the effective hedge amount. For example, a carry spot trade hedge is designated as the hedge of a forecasted sale and effectiveness will be assessed based on the spot rates. Assuming the forecasted sale occurs as anticipated, there is no ineffectiveness recorded to the income statement related to the change in spot rates. Interest carry costs will also be recorded to the income statement.

An alternative example: if the forward contract is designated as the hedge of a forecasted sale, the effectiveness is assessed based on the forward rates. Assuming the forecasted sale occurs as anticipated, there is no ineffectiveness recorded to the income statement

Appendix B – What to Hedge?

Data Capture: The Key to Determining How Much to Hedge

The key to using forex hedging to effectively manage your foreign currency risk is to capture accurate forex exposure information. The collection and evaluation of data on foreign currency transactions can be broken down into three areas:

1. Recorded assets and liabilities on the balance sheet
2. Firm commitments (binding third-party contracts)
3. Highly probable future (forecasted) transactions

Once you have captured this data, you can determine the hedging ratio on your future foreign exposures.

Capturing Data on Recorded Assets and Liabilities

Companies need to collect and review data on foreign currency exposures (foreign currency assets and liabilities) generated from their accounting systems (accounts receivable, accounts payable, and so on), a task that becomes more challenging if there are multiple systems deployed. Ideally, this data capture should be automated through financial system inquiry programs that produce appropriate summary reports for determining hedging amounts. A review of the foreign exposure data is a prudent business practice because erroneous journal entries may have been posted to the general ledgers.

Once this data is collected and reviewed, the organization can implement its hedging program, reducing the percentage hedged based on an assessment of the risk that the data capture was susceptible to error.

Capturing Data on Firm Commitments

Firm commitments are binding agreements with third parties. Information on firm commitments is included in the methods and procedures for capturing your financial commitments as disclosed in the financial statement notes and your purchase order system. Typically, the data capture exercise entails a process of identifying signed third-party agreements and managing this information.

One of the challenges in this area of data capture is the need to properly segregate how the firm commitments are included in the foreign currency forecasted transactions. Firm commitments typically offer the ability for the company to choose between using a cash flow forex hedge or a fair value forex hedge, while forecasted transactions may only use cash flow hedges.

Under both the cash flow and fair value hedges, the change in the effective portion of the forex hedge is recognized on the income statement at the same time at which the gains and losses from the hedged foreign currency item impacts earnings. However, the administration of tracking the impact of the hedged items on earnings is sometimes easier when using a fair value hedge. For example, if you are hedging a foreign currency purchase of raw materials, which are used in the production of finished products, it will be more challenging to administer the accounting entries related to when the cost of raw materials (bought and sold to third parties) impacts the earnings.

Under a cash flow hedge, the impact to earnings is recorded in the OCI account and transferred to earnings when the inventory is sold to third parties (not when it is sold to a subsidiary). However, under a fair value hedge, the accounting will be easier to administer since the fair value of the raw materials will be adjusted for the effective portion of the fair value hedge. Since the impact is included directly in the raw material cost, the impact to earnings will occur whenever the third-party sale of the finished

products takes place as part of the normal accounting entries.

Capturing Data on Forecasted Transactions

Accurate forecasting is critical to the company's ability to properly hedge an appropriate amount of forex risk. To improve forecasting techniques, consult with the purchasing and sales departments, and ask members of the budgeting department how accurate their prior forecasts were. To help manage the forecasting risk, consider reducing the hedging ratio (percentage to hedge) and designate and execute forex hedges in layers.

Forex Hedging Ratios

Each company will need to develop and review its own forex hedging policy and procedures. Note that forex hedging percentages or ratios can be refined as the data capture process improves.

A company may choose not to hedge all of its exposure to certain currencies. For example, it may be prudent to use confidence factors to determine either a hedging ratio or a forecast of foreign cash flow.

It may be a wise decision to reduce the forex hedging ratio if there is questionable data capture, at least until the data capture process improves. Predicting future cash flows requires significant judgment skills and considerable estimates of future activity. The forex hedging ratios related to longer-term future cash flows will often be lower to avoid over-hedging a position.

If management reduces the forex hedging ratio because it has a certain view about future currency movements, then the company is engaging in speculative behavior (not hedging). Ideally, this activity should be tracked and reported separately to senior management and the Board of Directors.

Scenario 1 (Hedging Ratio Based on Uncertainty)

A Japanese company expects to complete a 10 million euro purchase contract. However, the purchasing department does not have sufficient confidence in this purchase amount, so it recommends a hedging ratio of 80%, and further recommends that any hedging above 5 million euros be in lots. The company hedges one lot of 5 million euros (for the first 5 million euros) and three additional lots of 1 million euros each. It does not hedge the remaining 2 million euros (which is outside of the hedging ratio).

If, for some reason, the purchase contract ends up with just over 7 million euros, the majority of the hedging relationships would remain intact and only one lot of 1 million euros would need to be closed out and taken to the income statement. Conversely, if the contract is later forecasted to increase beyond the original 10 million euros, the company could make additional hedges at that later date.

Scenario 2 (Hedging Ratio Based on Speculation)

A U.S. dollar company has exposure to a 100,000 euro receivable that it hopes to collect in 60 days. The current EUR/USD rate is 1.4677/1.4678, but management feels very strongly that the U.S. dollar will drop in value over the next couple of months.

In this example, the company could reduce its forex hedging on the known exposure to 75%, in the hopes of profiting from a lower U.S. dollar on the remaining 25%. Alternatively, the company could hedge out the entire 100,000 euro exposure with a spot trade, selling 100,000 units of EUR/USD, in which case any changes in future EUR/USD currency rates would be effectively hedged

To act on their judgement around the USD drop in value, the company could buy 25,000 euros through a EUR/USD spot trade as a separate transaction in their speculation account, thereby profiting from a

USD decline over the next couple of months but maintaining a safe hedge on their receivable. To minimize downside risk, the company could place a stop loss order on speculative trades to limit potential loss.

Natural Hedges

The most economical forex hedge is a natural hedge. A natural hedge is where the foreign currency outflow is offset by a foreign currency inflow. However, the natural hedge may be tricky when the timing and amounts of the two cash flows do not match.

Scenario (Natural Hedge)

A British company does a great deal of business in the United States, with many American suppliers and customers. In three months, it has a large shipment worth \$10 million USD due to arrive at a US customer's factory. By coincidence, a shipment of raw materials is scheduled to arrive in Britain from the US at the same time, worth \$15 million USD. Based on past experience, the company has a high degree of confidence that it will receive payment from its US customer within 30 days of delivery, so has timed its payment to its supplier to coincide with this date.

In this scenario, there's a high probability of a natural hedge of \$10 million USD. The company only needs to hedge a \$5 million exposure.

Appendix C – Forex Hedge Summary Table

The following table provides a summary treatment of designated and non-designated forex hedges.

Forex Hedge	Hedge Designation (special accounting treatment)	Documentation and Testing	Forex Hedge FMV (mark-to-market)	Hedged Items	Impact – Effective Portion of the Forex Hedge	Comments
Not Designated	None	No special documentation, no effectiveness testing.	Hedge FMV on balance sheet - Offsetting entry direct to P&L	Recorded foreign currency assets and liabilities on the balance sheet	The gain/loss on forex hedge and the hedge item's forex revaluation impact to earnings offset each other.	Creates desired effect.
				Future transactions (both firm commitments and forecasted transactions)	Protects overall economic value; however, earnings volatility occurs due to mismatch when forex hedge impacts earnings and when the future transaction impacts earnings.	Potential earnings volatility may occur.
Designated	Fair Value Hedge	Upfront documentation, periodic testing of hedge effectiveness.	Hedge FMV on balance sheet - Offsetting entry direct to P&L	Firm purchase/sale commitments (binding contracts)	Change in FMV of underlying firm commitment is recorded on the balance sheet until purchase/sale is made. When purchase/sale is completed, this recorded commitment is reclassified to the purchase/sale amount.	Purchase/sale commitment's change in value recorded on the balance sheet (not usual treatment). Easier to track hedge item's impact to earnings by adjusting purchase amount at time of purchase.
				Recorded foreign currency assets and liabilities in special	Change in FMV of recorded asset or liability is recorded directly to earnings as is the gain or loss on the forex hedge.	Generally designated for situations when the company is hedging foreign denominated

Forex Hedge Accounting Treatment

Forex Hedge	Hedge Designation (special accounting treatment)	Documentation and Testing	Forex Hedge FMV (mark-to-market)	Hedged Items	Impact – Effective Portion of the Forex Hedge	Comments
				circumstances. Typically, foreign denominated debt.		debt against changes in foreign currency rates and interest rates.
	Cash Flow Hedge	Upfront documentation, periodic testing of hedge effectiveness. Forecasted transactions must meet definition of high probability.	Hedge FMV on balance sheet - Offsetting entry to equity OCI account - Reclassify OCI amounts to earnings when hedged item impacts earnings.	Firm purchase/sale commitments (binding contracts)	After the purchase/sale is completed, its impact to earnings must be tracked to determine when to reclassify the amounts in the equity OCI account to earnings. Change in FMV of underlying firm commitment is not recorded.	Cash flow forex hedges must lock in all the variable amounts of the hedged items (i.e., both forex and interest rates). Potentially more challenging to track hedged item's impact to earnings for purchase transactions.
				Highly probable forecasted transactions	After the purchase/sale is completed, its impact to earnings must be tracked to determine when to reclassify the amounts in the equity OCI account to earnings. Change in FMV of underlying firm commitment is not recorded.	Cash flow forex hedges must lock in all the variable amounts of the hedged items (i.e., both forex and interest rates). Potentially more challenging to track hedged item's impact to earnings for forecasted purchase transactions.
				Recorded foreign currency assets and liabilities in special circumstances. Typically, foreign denominated debt.	Change in FMV of recorded asset or liability is recorded directly to earnings as is the gain or loss on the forex hedge.	Generally designated for situations when the company is hedging foreign denominated debt against changes in foreign currency rates and interest rates.

Forex Hedge Accounting Treatment

Forex Hedge	Hedge Designation (special accounting treatment)	Documentation and Testing	Forex Hedge FMV (mark-to-market)	Hedged Items	Impact – Effective Portion of the Forex Hedge	Comments
	Net Investment Hedge	Upfront documentation, periodic testing of hedge effectiveness.	Hedge FMV on balance sheet - Offsetting entry to equity OCI account.	Net investment in a subsidiary	The gain/loss on forex hedge and revaluation of the net investment in the foreign subsidiary would both be recorded in the equity OCI account for foreign currency translation accounts, hopefully, offsetting each other.	Need to assess whether intercompany foreign currency debt is considered to be long term in nature. Depending upon the frequency with which the net investment hedge is updated to reflect current notional exposure, some ineffectiveness may occur.