

JPMORGAN GLOBAL FX OVERVIEW

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AFP, SOUTHERN CALIFORNIA CHAPTER

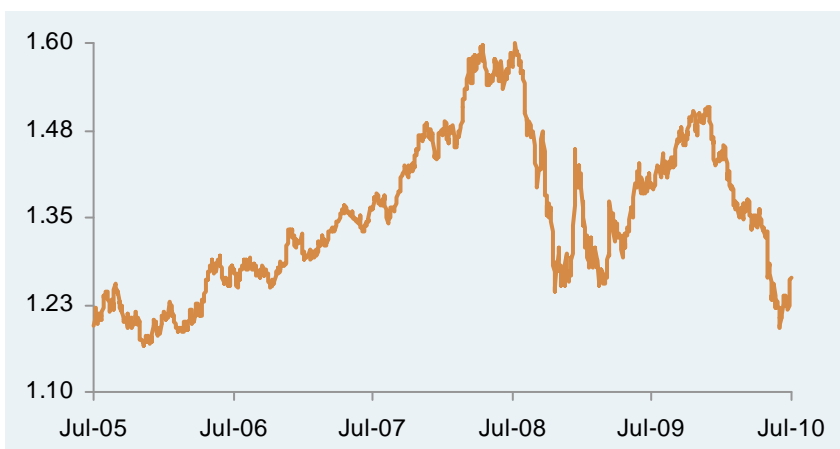
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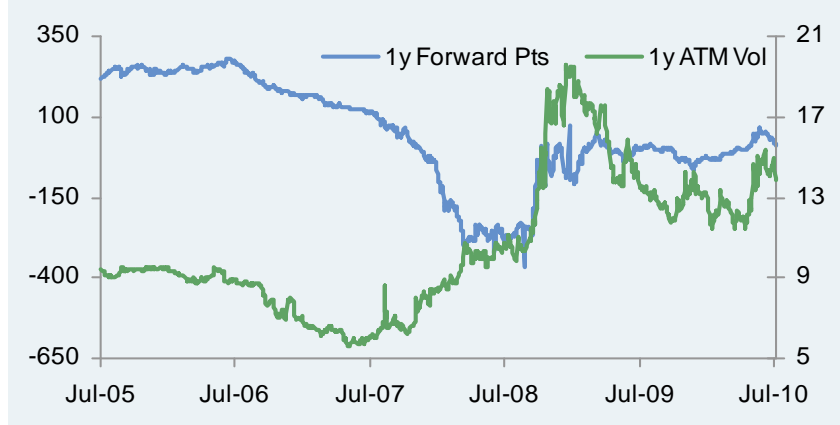
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Europe's stress test fails to measure the true thresholds of European Banks

EUR/USD 5-Year historical spot



EUR/USD historical 1y ATM vol and 1y forward points



JP Morgan forecasts

	Current	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	2011	2012	2013	2014
EUR/USD	1.30	1.25	1.25	1.25	1.25	1.20	1.23	1.19	1.25	1.30
EUR Refi Rate	1.00%	1.00%	1.00%	1.00%	1.00%	1.00%	-	-	-	-
US Fed Funds Rate	0.125%	0.125%	0.125%	0.125%	0.125%	0.125%	-	-	-	-

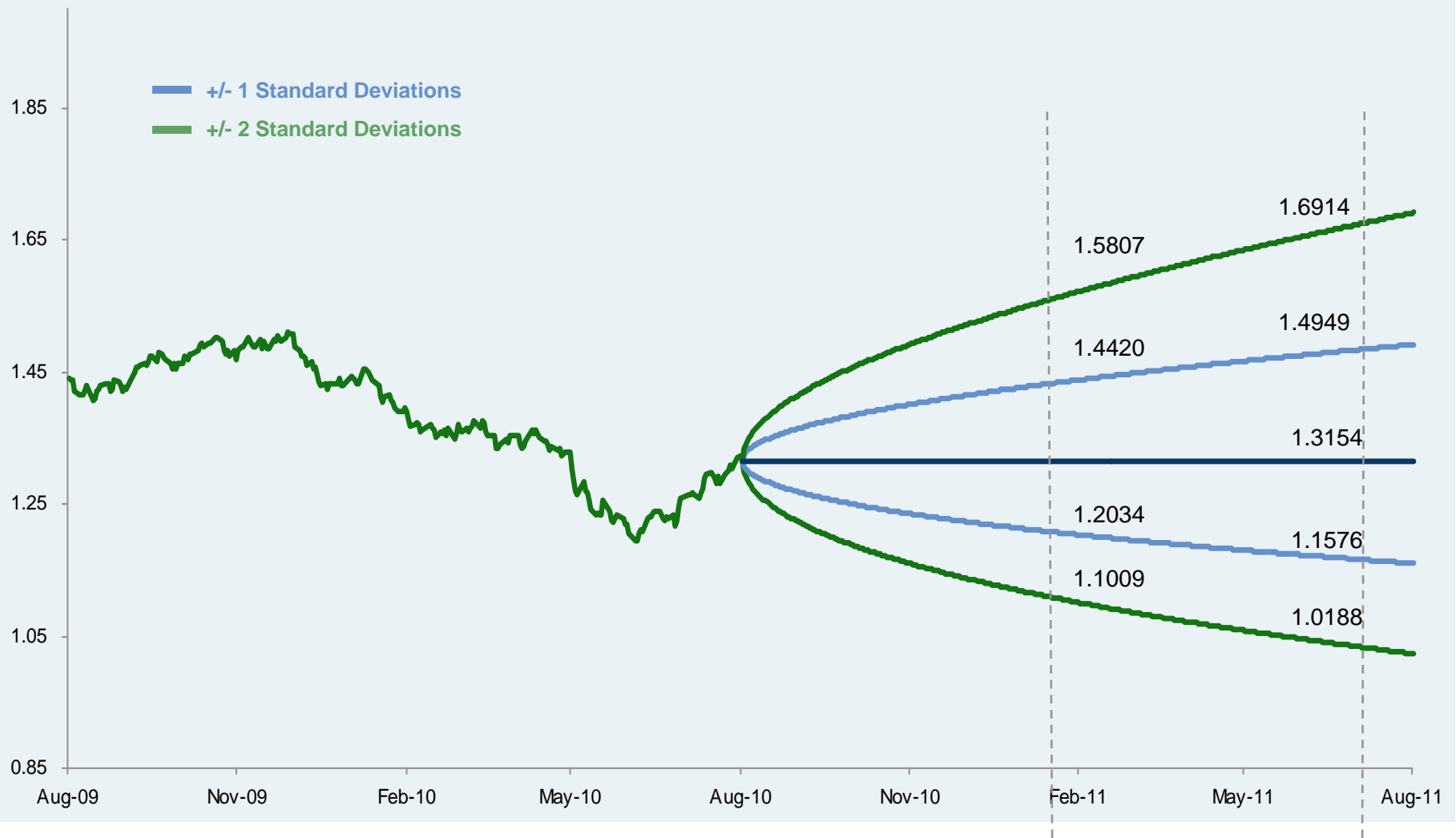
EUR/USD Outlook

- As policy initiatives go, Europe's stress tests should be remembered as a lost opportunity rather than a turning point for Europe's financial sector
 - Only seven institutions failed with an aggregate capital shortfall of EUR 3.5 bn. This figure seems implausibly low and will sustain perceptions that test criteria were too soft, capital requirements too low and therefore balance sheets still vulnerable
 - Uncertainty will continue to limit access to wholesale funding for some banks in the periphery which in turn can force deleveraging
 - While the test's strong results are expected to have a positive impact on market sentiment, JPMorgan believes that the results will not provide a definitive solution to the current crisis
- While the test's strong results are expected to have a positive impact on market sentiment, JPMorgan believes that the results will not provide a definitive solution to the current crisis
 - Indications of recovery in the Euro zone will likely come from the non-core sovereigns progress on meeting their pre-determined budgetary objectives, and an improvement of funding access for European banks
- The ECB made no policy changes at its meeting on July 8th and did not significantly alter its description of the growth and inflation outlook
 - Instead, the ECB President indicated that financial markets would gradually improve further, as they continued to "progressively" take into account recent policy decisions (the announced fiscal consolidation plans and the various support mechanisms)
- We look for EUR/USD to trade a range over the coming months, forecasting EUR at 1.25 through year end
 - Both the Fed and the ECB are likely to be on hold for a protracted period, but with the ECB expanding its non-conventional response to the current fiscal situation a de facto debasement of the single currency is likely to be a factor weighing on sentiment

EUR FX UPDATE

EUR Volatility Cone

EUR/USD 1-Year Historical Rates and 1-Year Statistical Range



Source: JPMorgan

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China FX Market Overview

China Onshore FX Market

Exchange Rate Mechanism

- CNY is a **managed floating currency**
- USDCNY was **fixed around 8.3** before the exchange rate reform
- On 21 July 2005, China announced a **2.1% one-off revaluation** of the CNY against the USD, and the reform of the exchange rate mechanism where the CNY would no longer be pegged to the USD, but instead managed with reference to a basket of currencies
- The daily opening fixing rate decided by the PBoC is published at 9:15am, Beijing time by CEFTS
- In the interbank market, the daily trading band of the CNY against the USD is **+/- 0.5%**, around the opening fix
- The lowest bid and the highest offer spread of the USD-CNY exchange rate quoted to clients is limited to **1%** around the USD-CNY middle rate as announced by the PBoC

Onshore CNY Products

- On 2 August 2005, PBOC expanded the eligibility of CNY forward licenses to foreign banks
- On October 20 2006, SAFE expanded the eligibility of forward and swap transaction with clients besides interbank trading
- Onshore CNY products available include FX spot/forward/swap and structured forward
- Clients are required to provide supporting documents for different types of CNY FX transactions by State Administration of Foreign Exchange

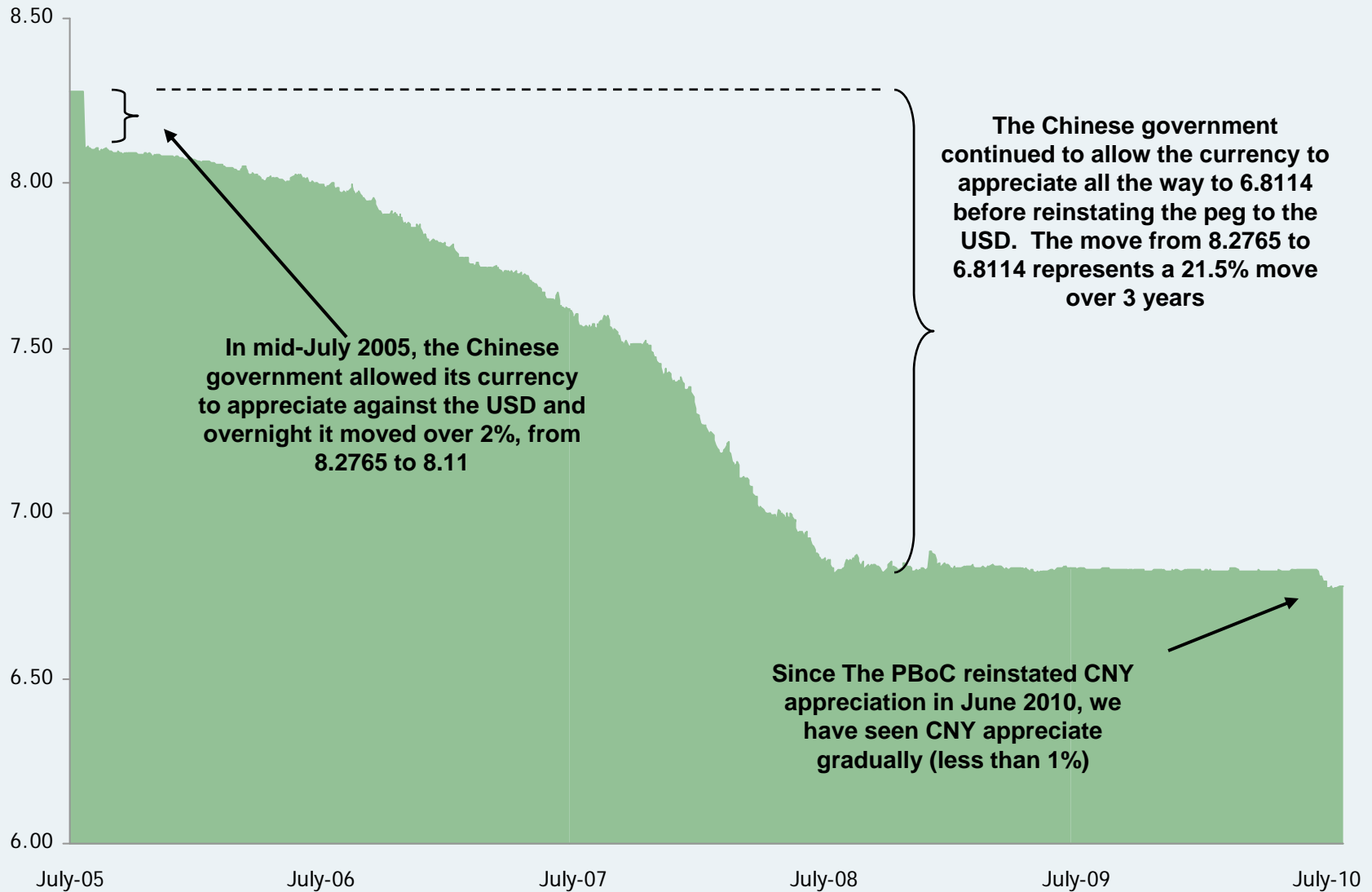
1.PBOC: People's Bank of China (central bank)

2.CEFTS: China Foreign Exchange Trade System

3.SAFE: State Administration of Foreign Exchange

CNY is poised to appreciate substantially versus USD

USD/CNY Spot



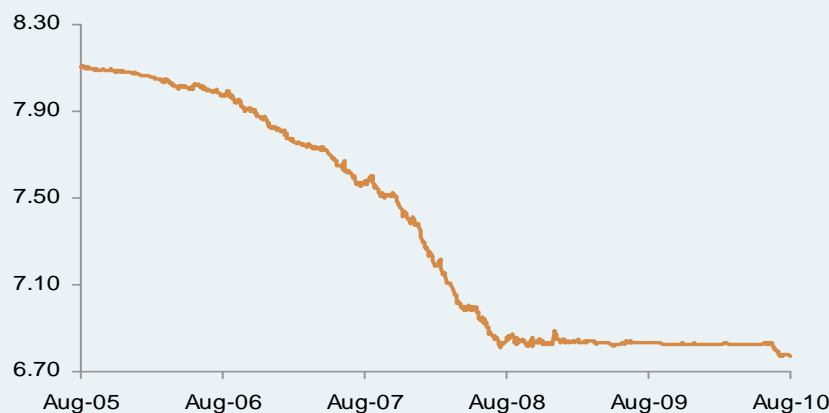
In mid-July 2005, the Chinese government allowed its currency to appreciate against the USD and overnight it moved over 2%, from 8.2765 to 8.11

The Chinese government continued to allow the currency to appreciate all the way to 6.8114 before reinstating the peg to the USD. The move from 8.2765 to 6.8114 represents a 21.5% move over 3 years

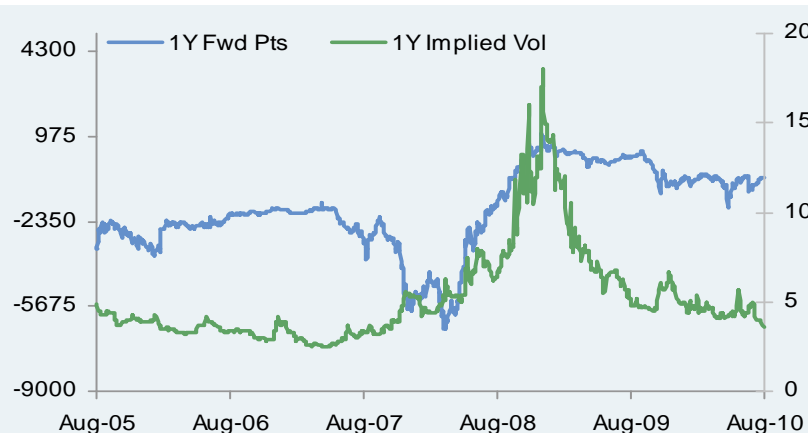
Since The PBoC reinstated CNY appreciation in June 2010, we have seen CNY appreciate gradually (less than 1%)

Key to CNY movement can be tagged to “flexible” and “targeted” policy adjustment

USD/CNY historical spot



USD/CNY 1y ATM implied vol and 1y forward points



USD/CNY Outlook

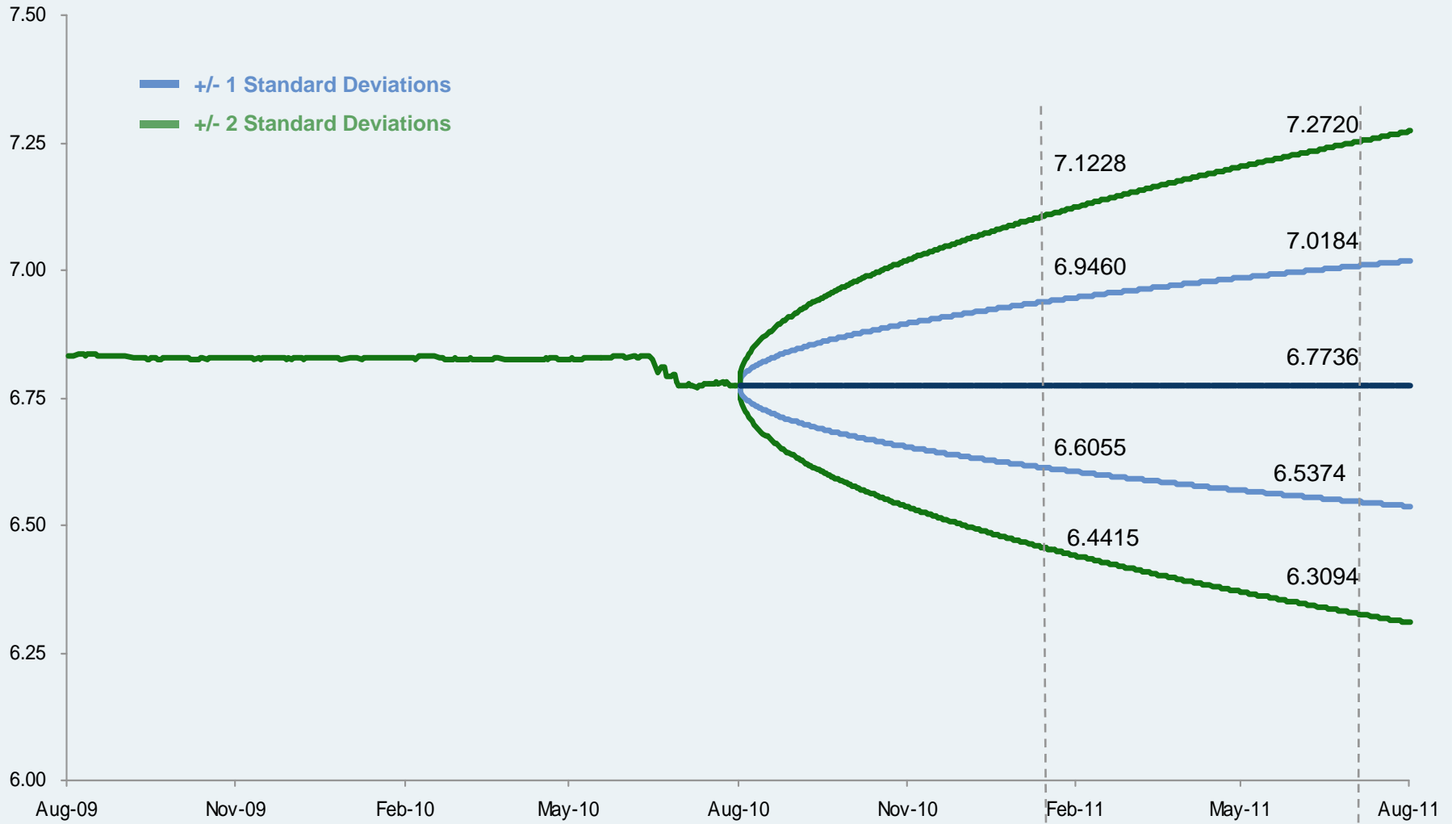
- The PBoC recently announced that it would “proceed further with reform of the RMB exchange rate regime and enhance the RMB exchange rate flexibility.”
 - It appears that authorities will return to the pre-crisis policy of allowing the currency to move +/- 0.5% daily around the previous day's fix
 - Although the direction of movement in policy was expected, the shift represents more than what many Chinese officials have been signaling recently given their lack of confidence in the global recovery and thus the durability of their balance of payments surplus
- China has expanded at a strong 11.9% oya pace in 1Q10. Latest indicators have shown that global demand for Chinese goods is growing briskly and domestic retail sales are expanding solidly, while fixed investment growth has moderated from the blistering 2009 pace.
 - Strong gains in consumer spending and exports should cushion the projected slowing in fixed asset investment growth later this year
 - There is still considerable stimulus in the system and that economic growth will only slow from the robust 12% pace over the four quarters through 1Q10 to a more trend-like 9% to 9.5% pace beginning in the current quarter
- USD/CNY should be stable in the near term, but further appreciation is expected to resume heading into next year
 - Our view is that this will begin in 3Q10 when the return to a steady, positive growth trend is firmly in place and the Chinese leadership have built confidence in the sustainability of the global economic recovery
 - The latest US Treasury's report on International Economic and Exchange Rate Policies did not name China as a manipulator of FX which helped to bolster the currency

JPMorgan forecasts

	Current	Sep-10	Dec-10	Mar-11	Jun-11	Sep-11	Dec-11	2011	2012	2013
USD/CNY	6.77	6.70	6.60	6.50	6.40	6.30	6.20	6.40	6.20	6.00
CNY 1y working cap.	5.31%	5.58%	5.85%	6.12%	6.12%	6.12%	6.12%	-	-	-
US Fed Funds Rate	0-0.25%	0-0.25%	0-0.25%	0-0.25%	0-0.25%	0-0.25%	0-0.25%	-	-	-

CNY Volatility Cone

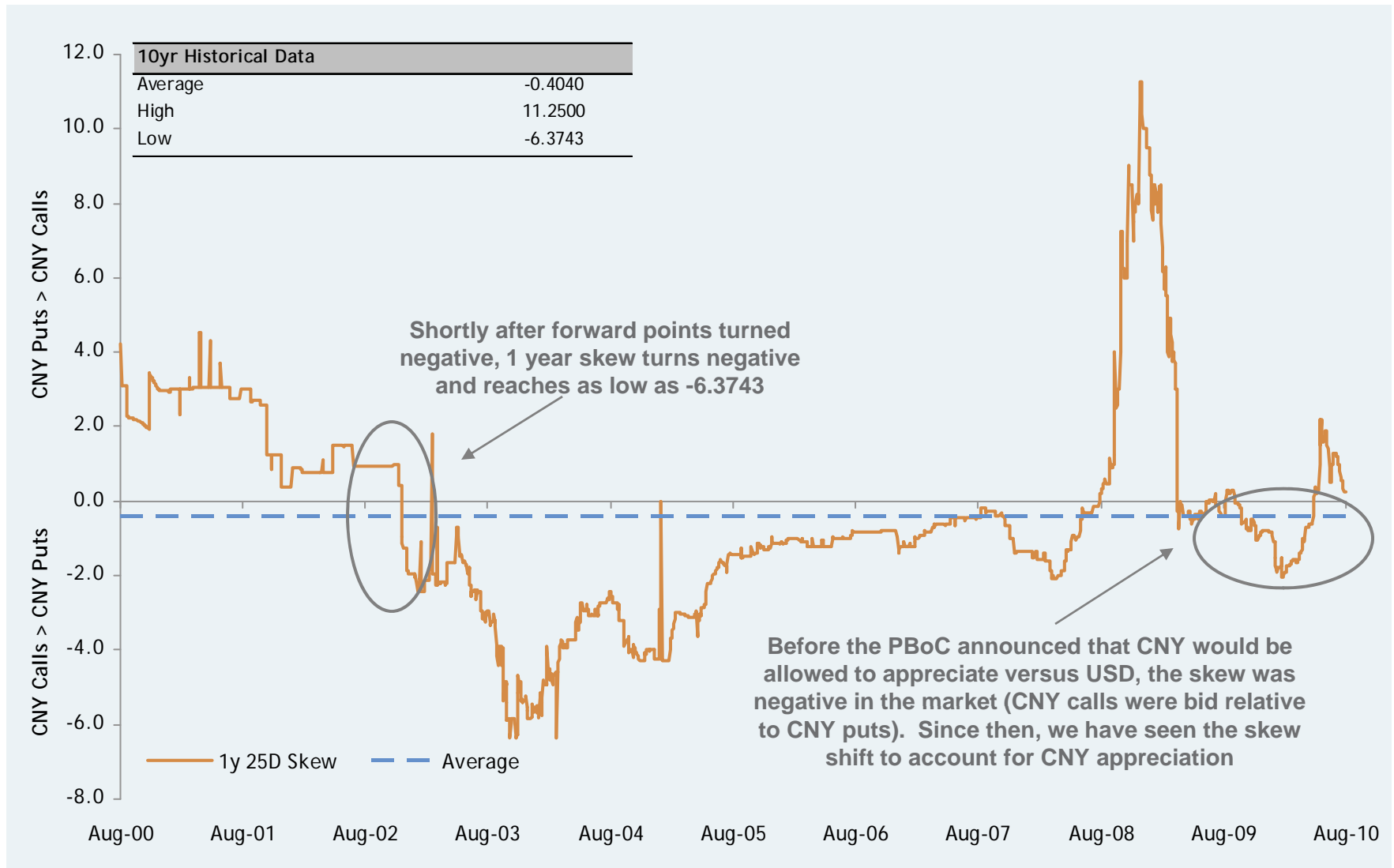
USD/CNY 1-Year Historical Rates and 1-Year Statistical Range



Source: JPMorgan

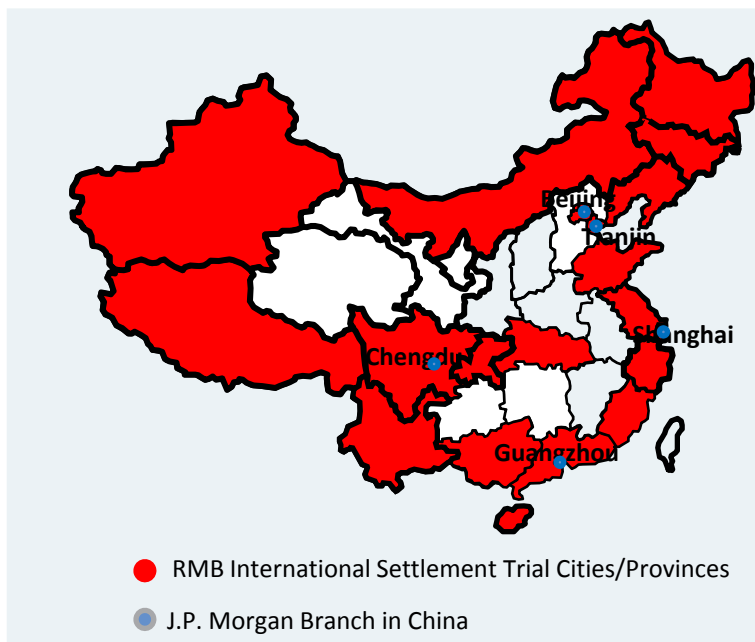
Implied option volatility signals appreciation in CNY

Chinese Yuan - 1 Year 25 Delta Risk Reversal skew



The hottest topic in China now - RMB International Settlement

Geographic Coverage of RMB International Settlement



- Companies located in the following 20 trial cities/provinces can participate in RMB international settlement, including:
 - Municipalities: Beijing, Tianjin, Shanghai & Chongqing
 - Provinces: Inner Mongolia, Liaoning, Jiangsu, Zhejiang, Fujian, Shandong, Hubei, Guangdong, Guangxi, Hainan, Sichuan, Yunnan, Jilin, Heilongjiang, Tibet and Xinjiang
- No restrictions on corporations outside of China. Any overseas corporation can settle cross border trade in RMB with qualified companies in China

Eligible Transactions

- Imports to China
 - Merchandise trade
 - Service trade
 - Other current account transactions
- Exports from China
 - Merchandise trade with qualified Chinese corporations on the government-approved list

RMB Non-Resident Account (NRA)

- What is RMB NRA?
 - Non-resident corporates are allowed to open RMB settlement accounts with a RMB Domestic Settlement Bank in Shanghai to settle valid RMB payments and collections with their counterparties in China.
- In the trial phase, any corporation outside of China can open a RMB NRA with a Domestic Settlement Bank
- J.P.Morgan submitted proposal to PBoC and targets to offer RMB NRA in Sep 2010.

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Forward Contracts

Description of Forwards

Description

- A forward contract is a binding agreement between you and JP Morgan to exchange a predetermined amount of one currency for another, at an agreed date in the future, using a rate of exchange determined today, based on current spot levels and interest rate differentials. A window contract allows for added flexibility by allowing you to make or receive payments over a series of dates between two pre-determined dates

Advantages

- Enables a client to fix the full value of their future EUR/USD payables/receivables upfront
- Certainty—regardless of where market rates are throughout the life of an executed forward contract, client will be guaranteed a predictable, fixed rate of exchange
- Convenience for budgetary calculations and revenue forecasting
- Flexibility—forward contracts can be structured so that dates can be matched exactly with underlying exposures. (Window Forward)
- Interest rate differentials currently result in forward rates trading at a premium (i.e., more points are added the longer the period of the hedge), resulting in a superior rate than the spot market rate (for receivables)

Considerations

- Potential opportunity loss if market rates improve beyond a contracted forward rate
- Firm commitment obligation—contract will have to be settled regardless of whether or not need exists
- FX credit facility requirement

Indicative Pricing

Example: (based on spot reference of 1.3285)

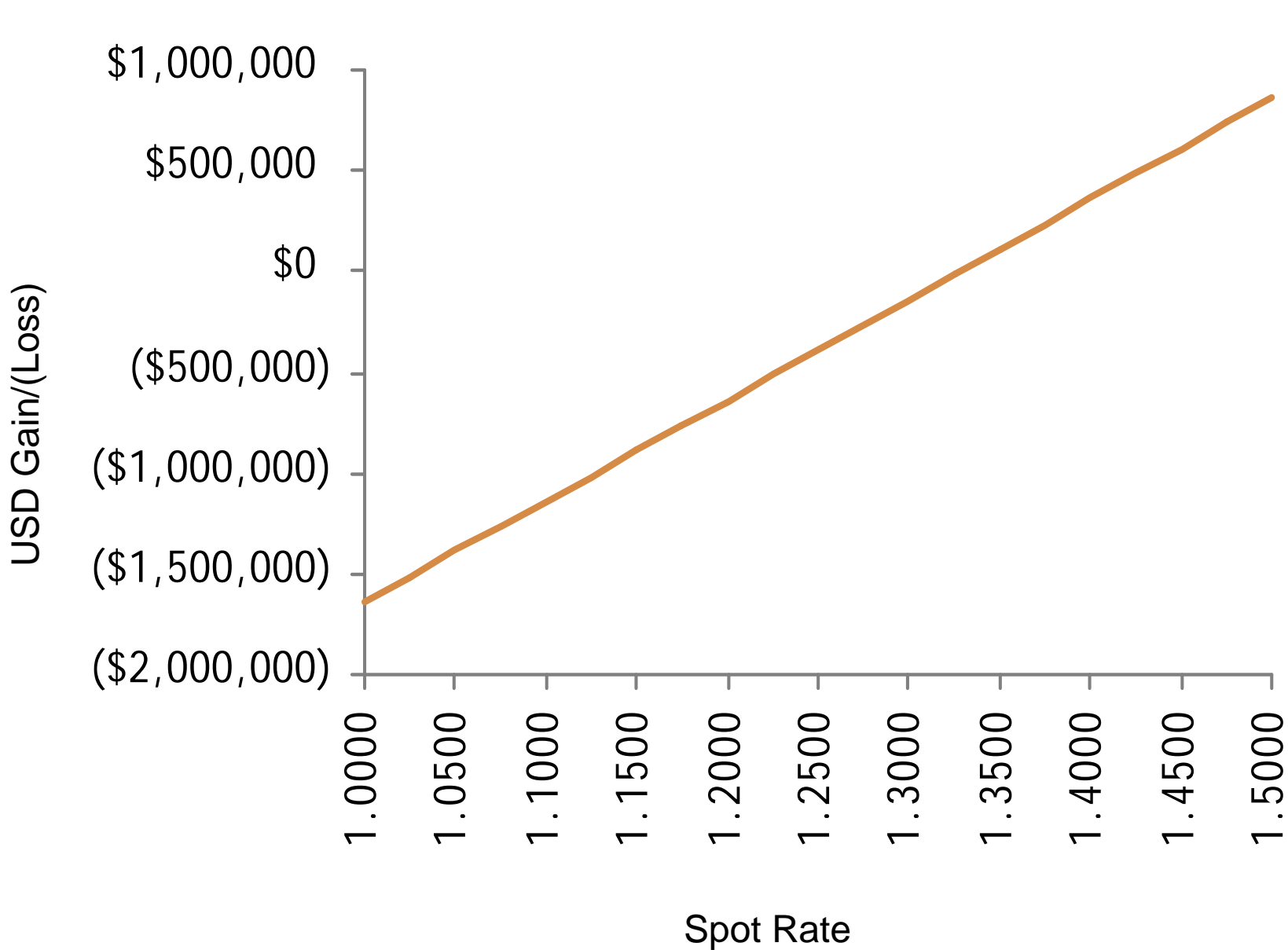
- XYZ has a payable of EUR 5,000,000 to a European supplier on the 30th of every month. XYZ is concerned about a weakening dollar/strengthening EUR and thus enters into a forward contract with JPMorgan. A rate is set now at which XYZ will buy a predetermined amount of EUR (5,000,000) at an agreed future date (October 29th)
- XYZ's USD checking account will be debited the USD equivalent 2 business days prior to the value date (10/27)—the final date of settlement
- Based on current interest rate differentials, the EUR/USD shows October 29th forward points at -5. Therefore, the all-in forward rate for this period is $1.3285 + (-.0005) = 1.3280$. Regardless of the EUR/USD levels during this period, XYZ is guaranteed of this fixed pricing and, therefore, fixed payables of \$6,640,000 USD ($5,000,000 / 1.3280$) at the time of contract maturity

Without this forward hedge, XYZ would have risked paying more should EUR/USD levels become less favorable

Term	Forward Points	All-In Rate
Spot Rate	---	1.3285
3-Month	-.0005	1.3280
6-Month	-.0015	1.3270
9-Month	-.0025	1.3260
12-Month	-0.0035	1.3250

Profit/Loss Analysis-Locking in a 3 Month Forward

Forward hedge vs. unhedged position



Vanilla Currency Option

Description of vanilla currency option

Description

- A Vanilla Currency Option gives the option holder the right, but not the obligation, to buy or sell a specific amount of currency, at a specific predetermined exchange rate, on or before a specified future date
- Most common type of currency option. Provides protection against unfavorable currency moves, while allowing the opportunity to benefit from favorable market movements. Limited downside risk; unlimited upside potential
- A one-time up-front cash premium payment is required
- No FX credit line required

Advantages

- Provides downside protection (i.e., strike price) while, granting access to an unlimited upside for potential gain
- Flexible—can be structured so as to allow for exercise at anytime during the life of the option
- Provides the right, but not the obligation to deal at the specified strike price
- Premium paid upfront will always be the maximum “cost.” Depending upon market rates at any time during the life of the option, the premium paid can potentially be recouped, in whole or in part
- No FX credit facility is required
- Lowest risk of all option products

Considerations

- Upfront cost is the highest of any hedging instrument
- The “budget rate” (i.e., strike price) is typically specified at a level worse than a conventional forward outright (i.e., “out-of-the-money”) in order to keep premium costs at a reasonable level
- If the option expires worthless and a deliverable (i.e., currency conversion) need disappears, then the premium paid upfront becomes an entirely “sunk” cost that cannot be recouped

Indicative pricing

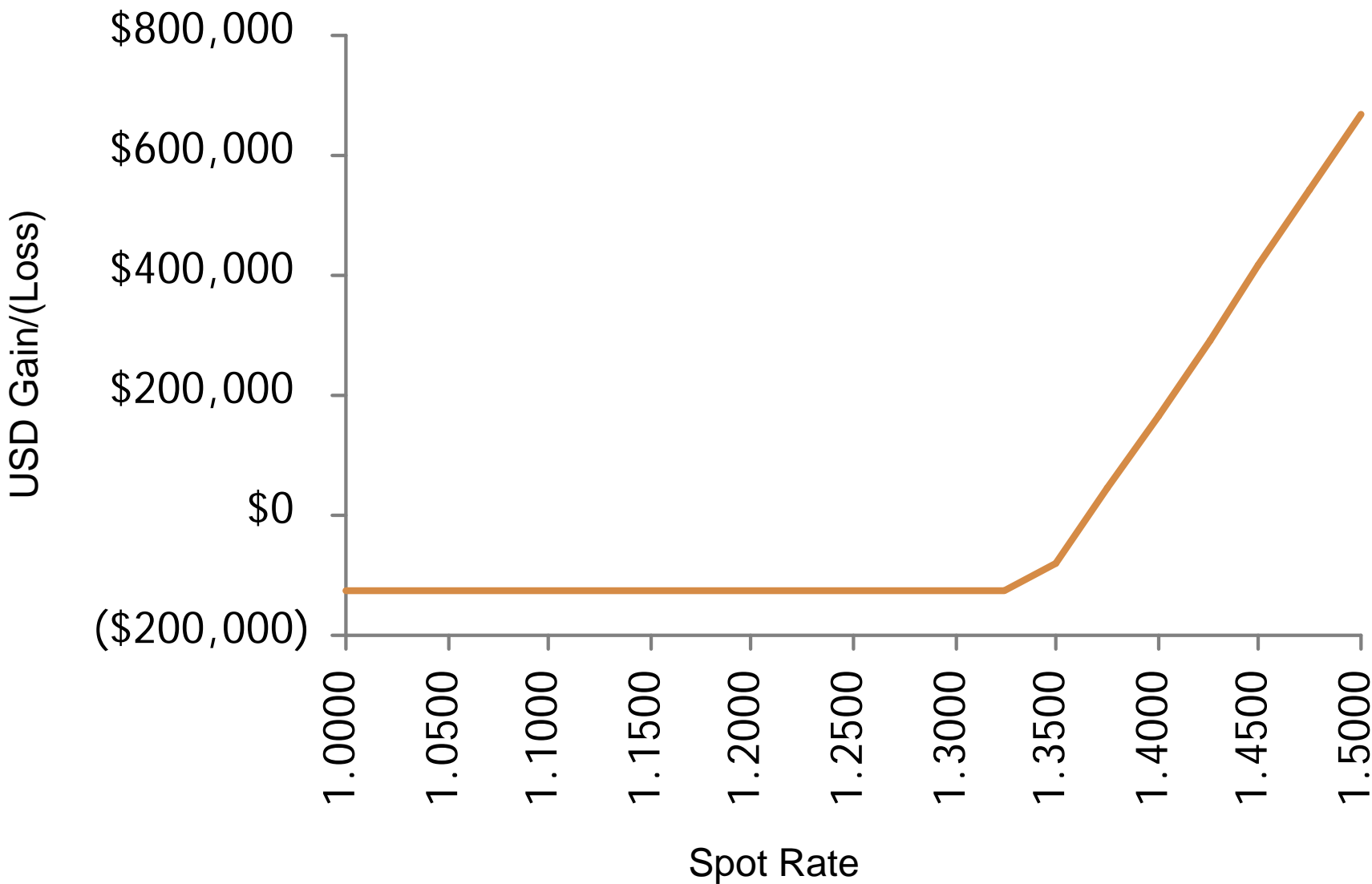
- **Example: (based on spot reference of 1.3285)**
- XYZ needs to buy EUR 5,000,000 in three months time. XYZ determines the worst possible rate (i.e., budget rate) at which it would buy EUR is 1.3413.
- XYZ purchases from JPMorgan a EUR Call / USD Put option with a Strike Price of 1.3413. In exchange for this protection, XYZ pays JPMorgan a premium—due two business days from the actual purchase of the option
- **Scenarios at Maturity:**
- **Spot > 1.3413:** XYZ may exercise the option and buy the EUR 5,000,000 at the contracted Strike Price of 1.3413. The benefit of the option is realized at this time
- **Spot < 1.3413:** XYZ is entitled to ignore the option, which will then expire worthless, and can proceed to deal in the current spot market

NOTE: There are two different classes of options: European-style (exercisable on maturity date only) and American-style (exercisable at any time during the life of the option). The above example assumes an “European-style” option exercise

Term	Premium	Strike (1% OTM)	FX Forward
3-Month	1.85%	1.3413	1.3280
6-Month	2.87%	1.3403	1.3270
9-Month	3.70%	1.3393	1.3260
12-Month	4.45%	1.3383	1.3250

Profit/Loss-Locking in a vanilla option

Vanilla option vs. unhedged position



Range Forward Option

Description of range forward option

Description

- A combination of two Vanilla Currency Options that synthetically creates a “floor” and a “ceiling”. Also referred to as a “Costless Collar Option”
- Firm obligation to buy from or sell to JPMorgan a fixed amount of foreign currency on a specific future date within a predetermined “range” of exchange rates at which the contract can be exercised
- Consists of a simultaneous purchase and sale of put and call option for the same principal amount and maturity, but with different strike prices

Advantages

- No upfront cost required
- Provides downside protection (i.e., “floor”) while granting a limited upside potential for gain capped by the “ceiling”
- The best case scenario is superior to a conventional forward outright rate

Considerations

- The downside “floor”/“ceiling” rate is worse than a conventional forward contract rate
- Upside is limited (capped) by the “ceiling”/“floor” rate. Potential opportunity loss if market rates improve beyond the “ceiling”/“floor” rate
- The “ceiling”/“floor” level becomes a firm obligation (unlike a Plain Vanilla option) in the event that it is breached.
- Since the “ceiling”/“floor” is created by the sale of a JPY put/call to JPMorgan by client, there is an unlimited “loss” potential, in the event that a deliverable (currency conversion) need disappears
- Partial exercise of an option is not conventional (i.e., “all or nothing”)
- FX credit facility required

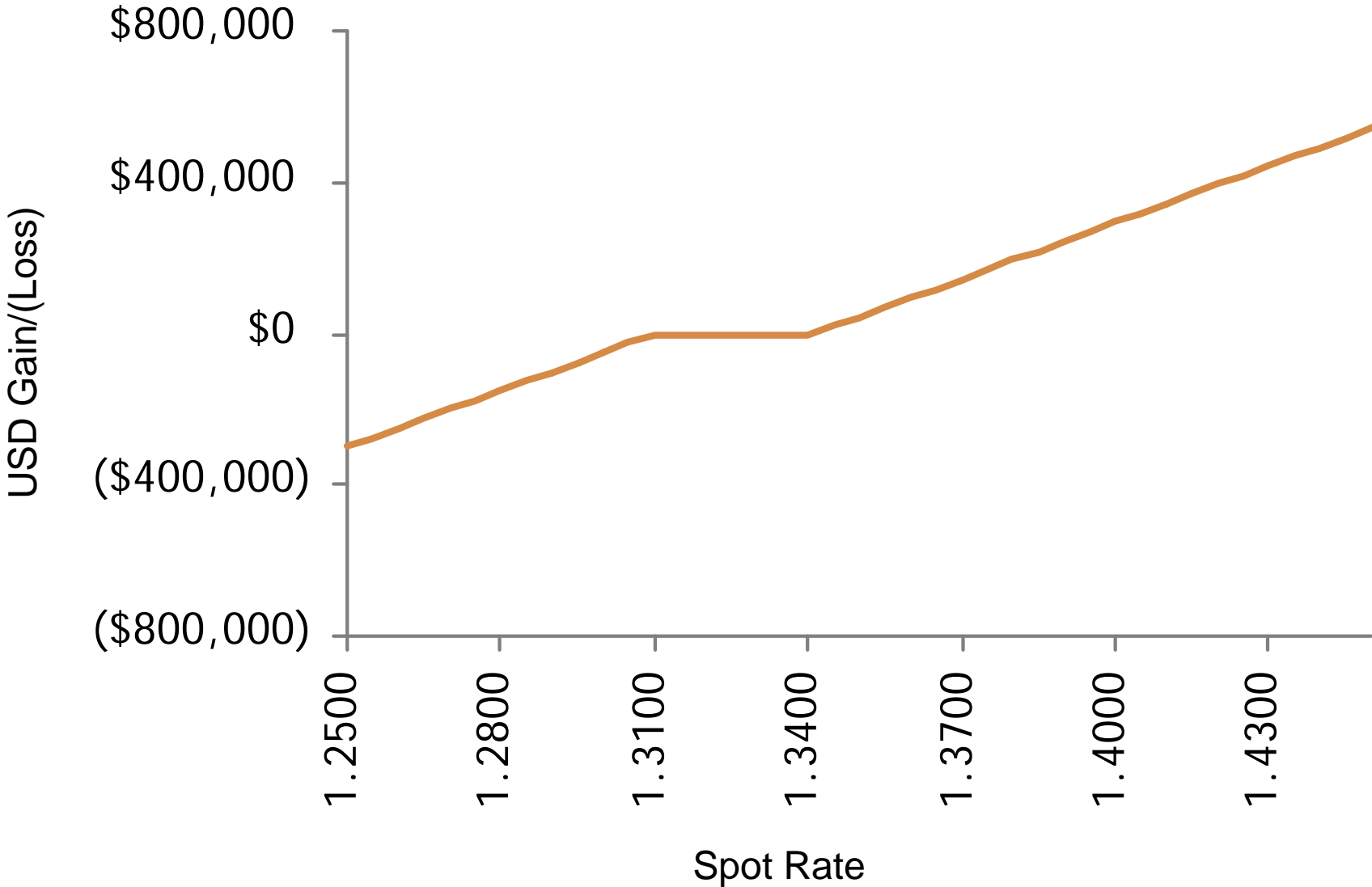
Indicative Pricing

- **Example: (based on spot reference of 1.3285)**
- XYZ needs to hedge a payable of EUR 5,000,000 in 3 month’s time. XYZ purchases a Range Forward Option from JPMorgan with the following parameters:
- **Range: 1.3413/ 1.3102**
- **XYZ Buys from JPM:** EUR Call/USD Put at strike price 1.3413. This is the worst possible rate at which XYZ could potentially buy EUR on expiry date.
- **XYZ Sells to JPM:** JPY Put/USD Call at strike price 1.3102. This is the best possible rate at which XYZ could potentially buy EUR on expiry.
- **Scenarios at Maturity:**
- **Spot > 1.3413:** XYZ buys EUR 5,000,000 @1.3413
- **1.3102 < spot < 1.3413:** XYZ buy EUR 5,000,000 at prevailing spot
- **Spot < 1.3102:** XYZ is obligated to buy EUR 5,000,000 at best rate of 1.3102. (JPM exercises EUR Put option at 1.3102)

Term	Call Strike (1% OTM)	Put Strike	FX Forward
3-Month	1.3413	1.3102	1.3280
6-Month	1.3403	1.3092	1.3270
9-Month	1.3393	1.3083	1.3260
12-Month	1.3383	1.3072	1.3250

Profit/Loss-Locking in a range forward option

Range forward option vs. unhedged position



Forward Extra Option

Description of Forwards Extra

Description

- Combines the protection of a forward contract with the flexibility of an option
- Sets worst-case exchange rate at strike rate
- Benefit from favorable exchange rates up to trigger rate
- Fixed exercise at Strike if Reverse Knock-in (RKI) trigger is touched during option's life
- Zero upfront cost
- Credit line is required

Advantages

- No upfront cost required
- Provides downside protection (i.e., "strike") while granting a generous upside potential for gain limited by a Reverse Knock-In (RKI) Trigger
- The best case scenario is considerably superior to both a conventional forward outright rate or even the "best rate" of a collar option
- The strike need only be slightly "worse" than a forward outright rate (i.e., at-the-money-forward rate) to benefit from a generous upside potential
- Similar to a forward contract in terms of downside protection, but maintains characteristics of an option in terms of a greater upside potential for gain

Considerations

- The downside "strike" rate (i.e., "worst rate") is necessarily worse than a conventional forward contract rate
- Upside is limited by the RKI level. If the RKI is touched at any time during the life of the option, one is obligated to deal at the "worst rate" (i.e., strike)
- Greater risk associated with a potential opportunity loss than a collar option or a forward contract
- Partial exercise of an option is not conventional (i.e., "all or nothing")
- FX credit facility required

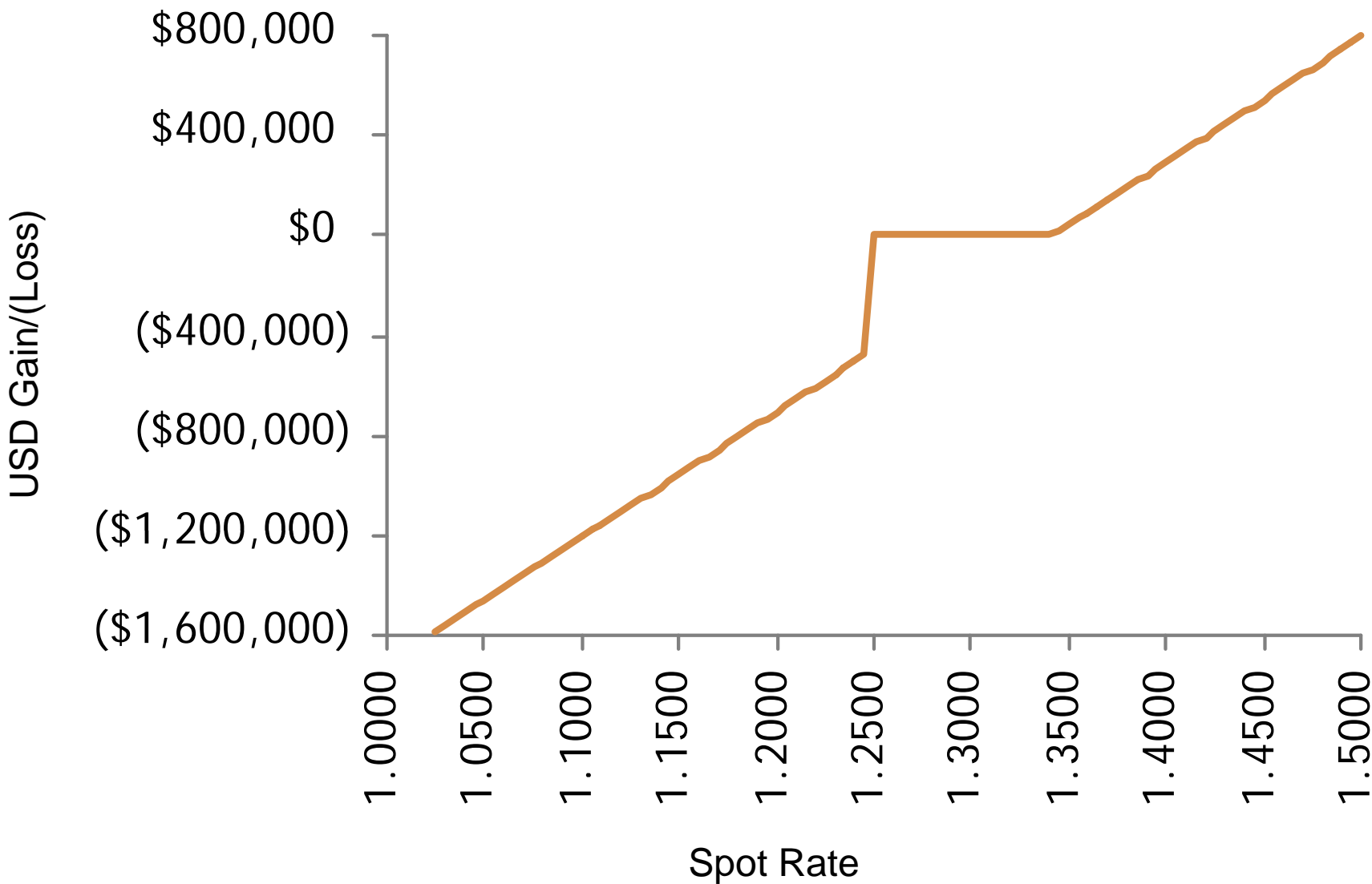
Indicative Pricing

- **Example: (based on spot reference of 1.3285)**
- XYZ needs to hedge a payable of EUR 5,000,000 in 3 month's time. XYZ purchases a Forward Extra Option from JPMorgan with the following parameters:
- **Range: 1.3413 / 1.2475**
- **XYZ Buys from JPM:** EUR Call/USD Put at strike price 1.3413. This is the worst possible rate at which XYZ could potentially buy JPY on expiry date.
- **XYZ Sells to JPM:** JPY Put/USD Call at the same strike price 1.3413 with an RKI trigger of 1.2475.
- XYZ is protected at the worst case rate of 1.3413 with potential benefit to 1.2475. XYZ is locked in at 1.3413 if trigger touches 1.2475 during the life of the contract.
- **Scenarios at Maturity:**
- **Spot > 1.3413:** XYZ buys EUR 5,000,000 at 1.3413
- **Spot > 1.2475; spot < 1.3413:** XYZ buy EUR 5,000,000 at prevailing spot
- **Spot <= 1.2475 during option life:** XYZ is obligated to buy EUR 5,000,000. (JPM exercises EUR Put option at 1.3413)

Term	Strike (1% OTM)	Trigger	FX Forward
3-Month	1.3413	1.2475	1.3280
6-Month	1.3403	1.2225	1.3270
9-Month	1.3393	1.2125	1.3260
12-Month	1.3383	1.1890	1.3250

Profit/Loss-Locking in a forward extra

Forward extra vs. unhedged position



Participating Forward

Description of Participating Forward

Description

- A participating Forward allows a company to protect its downside risk from currency moves, yet share in a percentage of the upside gains
- For this participation, client accepts a hedge rate that is worse than the current forward market
- Usually, Participating Forwards are structured with no premium payable upfront, although the company can pay a premium to improve the strikes or participation percentages

Advantages

- Participate in 50% of favorable moves
- No premium to be paid upfront
- Flexibility to set the level of protection at any rate allows for more customization that does not exist with forward contracts

Considerations

- Hedge rate is less favorable than the forward contract
- A 50% participation rate requires a big move in spot to break even

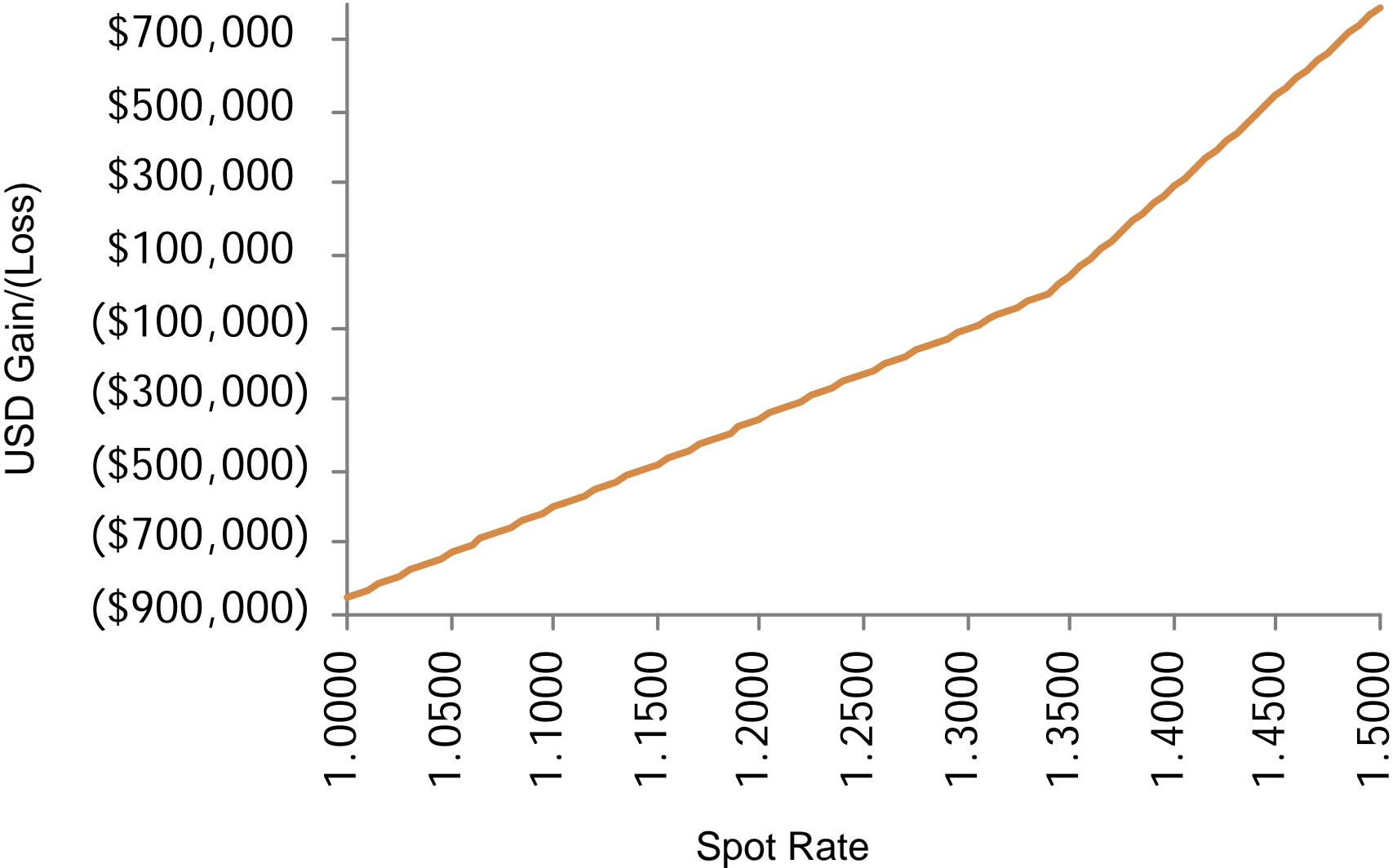
Indicative Pricing

- **Example: (based on spot reference of 1.3285)**
- XYZ needs to hedge a payable of EUR 5,000,000 in 3 month's time. XYZ purchases a 50% Participating Forward from JPMorgan with the following parameters:
 - **XYZ Buys from JPM:** EUR Call/USD Put at strike price 1.3400. This is the worst possible rate at which XYZ could potentially buy EUR on expiry date
 - **XYZ Sells to JPM:** EUR Put/USD Call at the same strike price of 1.3400
 - XYZ is protected at the worst case rate of 1.3400. XYZ is locked in to purchase 50% of the total EUR notional (EUR 2,500,000) should EUR trade below 1.3400
- **Scenarios at Maturity:**
 - **Spot > 1.3400:** XYZ buys JPY 5,000,000 at 1.3400
 - **Spot < 1.3400:** XYZ buy EUR 2,500,000 at 1.3400. XYZ is free to cover the remaining JPY in the spot market

Term	Strike (50% Part.)	FX Forward
3-Month	1.3400	1.3280
6-Month	1.3600	1.3270
9-Month	1.3750	1.3260
12-Month	1.3875	1.3250

Profit/Loss-Locking in a 50% Participating Forward

50% Participating Forward vs. unhedged position



Hedge Tools Comparison

Advantages/Considerations

	FX Forward	Vanilla Option	Range Forward	50% Participating Forward	Forward Extra
Description	Locks-in fixed rate for future delivery	Sets worst case rate.	Sets max. & min. rate.	Sets worst case rate, allows for upside participation on 50% of total notional	Forward-like protection w/ benefit from favorable rates
Benefit from favorable rates	No	Yes	Yes	Yes	Yes
Upfront Premium	N/A	Yes	Zero	Zero	Zero
Remarks	Forward based upon spot +/- forward pts.	Unlimited benefit from favorable market moves	Rate benefit limited by min/max rates.	Rate benefit limited by strike rate	Rate benefit limited by trigger rate

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FX Exposure Management Terminology

Reporting currency

- Currency in which the parent firm prepares its financial statements

Functional currency

- Primary currency in which an affiliate generates and expends cash
- Usually the local currency in a foreign country unless the country is in a hyperinflationary environment

Non-functional currency

- All other currencies except the functional currency

Non-functional currency transaction exposure

- Non-functional currency accounts receivable, accounts payable, cash, intercompany loans, firm commitments, forecasted or anticipated transactions

Translation exposure

- Consolidation of subsidiary financials into parent company's financials
- Arises from the need to produce consolidated financial statements
- Reflects changes in book value of foreign subsidiaries
- No conversion of currency involved

Currency risk management and shareholder value

- In establishing a currency risk management program, companies need to identify the risks that they face and articulate their hedging philosophy
 - Companies' hedging philosophy should be directly related to the creation of shareholder value

Currency risk management overview

Objective

- Reduce volatility in earnings in USD terms
- Reduce volatility in cash flows in USD terms

Impact on Firm Value

- Academic, empirical and anecdotal evidence overwhelmingly support that hedging increases firm value
- The hedging "premium" is on average 5%¹
- Hedging premium is both statistically and economically significant

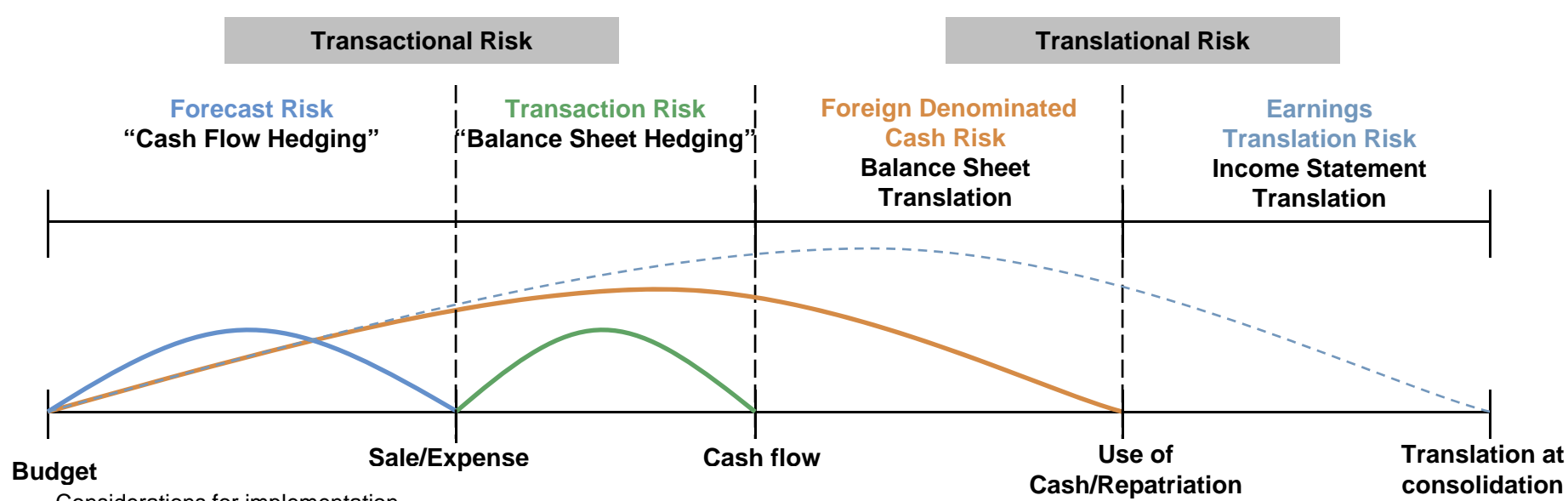
Rationale

- Investors in a stock seek exposure to foreign markets, not currencies
- Lower volatility provides investors greater visibility into performance
- Predictable cash flows reduce debt cost and increase access to debt markets and financial flexibility
- Lower volatility increases ability to make value enhancing investments

Source: JPMorgan and selected publicly available information

¹ Allayannis & Watson (2001)

Identifying the impact of currency movements on earnings and cash flow



Considerations for implementation

Strategic/long term	Automatic rolling program	Immediately identifiable exposure	Minimized via forecast program
Earnings and cash risk	Earnings and cash risk	Cash risk	Earnings risk

Description of currency impact

- | | | | |
|---|--|---|--|
| <ul style="list-style-type: none"> ■ Impacts operating income, “above the line” ■ Represents a strategic currency risk ■ Hedges must get hedge accounting ■ Tenor of hedges generally 6mos to 5 years ■ Represents an economic risk to shareholders | <ul style="list-style-type: none"> ■ Impacts earnings “below the line” on the FX G/L line ■ Non-strategic currency risk ■ Can be viewed as a point in time (one month at a time) exposure | <ul style="list-style-type: none"> ■ Impacts ability to make value enhancing use of cash if not USD denominated ■ To the extent that the functional currency cash is not being used in the local business, companies should protect the USD value of foreign denominated cash via net investment hedging | <ul style="list-style-type: none"> ■ Line by line translation of foreign subsidiary income statement ■ Impacts earnings above and below the line ■ Exposure can be eliminated via strategically designed forecast hedging program ■ Represents an economic risk to shareholders |
|---|--|---|--|

Overview of FAS 52

FAS 52 Overview

- Provide accounting and reporting requirements for recording of:
 - Foreign currency transactions in financial statements
 - Foreign currency financial statements for consolidated entities
- Objective of translation process is to produce financial statements in a single currency. The basis for the translation process is to
 - Have the accounting be consistent with the economic effect of a rate change on an entity's cash flows and equity
 - Reflect consolidated financial results based on the primary currency the entity conducts business (the entity's "functional currency") in conformity with US GAAP

Summary of Translation / Remeasurement

Summary

USD Parent
(Functional Currency=USD)



Transactions in currencies other than USD will result in a gain or loss in earnings. Translation of net investment in foreign sub w/ FC=LC will be an adjustment to equity

Foreign Subsidiary
(Functional Currency=USD)



Transactions in currencies other than USD will result in a gain or loss in earnings at the sub level.

Foreign Subsidiary
(Functional Currency=local currency)



Transactions in currencies other than the local currency will result in a gain or loss in earnings at the sub level.

Transactional “balance sheet” hedging

Overview

- The volatility in earnings introduced by the revaluation of non-functional currency denominated net monetary asset/liability positions into functional currency represents a non-strategic risk to earnings
 - The objective of the hedging program to minimize the amount of FX gain or loss reported below operating income, usually in other income
 - In other words, the objective is to make the FX G/L line go away
 - The only type of derivative that will accomplish this objective is a forward or forward based instrument
 - Ideally, 100% of the risk should be hedged
 - Hedge accounting is unnecessary
 - Since the underlying net monetary position is being revalued through earnings, the MTM of the hedge through earnings is the desired accounting
 - The hedges can be executed by the US parent, in the US parent’s name
- JPMorgan recommends that the Company implement a one-month rolling hedging strategy to reduce/eliminate this risk to earnings
- To the extent the Company is building up overseas cash denominated in a foreign currency that is not being used in the local business (for example, working capital), JPMorgan recommends protecting the USD value of the foreign denominated cash balance via net investment hedging as described later in this presentation

Mechanics of a transactional hedging program

Timeline – hedging transactional exposure (EUR payable on USD books)

- JPMorgan recommends using a one month rolling forward program to hedge its transactional risk



Eliminating the FX G/L line

EUR Payable Balance (in USD Terms) (assumes balance accrued at period end)	400,000	300,000	150,000	200,000	400,000	500,000	350,000	200,000	350,000
Time	T ⁰	1M	2M	3M	4M	5M	6M	7M	8M
EUR/USD Spot	1.2300	1.2800	1.2100	1.2500	1.3300	1.3500	1.2400	1.2100	1.1900
FX G/L on EUR Payable	0	(12,703)	13,559	(3,967)	(9,624)	(4,456)	32,855	6,998	2,778
FX G/L on Forward to Buy EUR, sell USD	0	12,703	(13,559)	3,967	9,624	4,456	(32,855)	(6,998)	(2,778)
Net FX G/L ¹	0	0	0	0	0	0	0	0	0

- The objective of the transactional hedging program is to reduce the FX G/L line to zero
- This can only be achieved by hedging 100% of the expected EUR payable balance using forwards
 - Options do not perfectly offset the revaluation of EUR payable balances because they have a cost and allow for upside participation
- Unless the Company knows its exact payment dates, using a one month rolling program provides the most flexibility with the least amount of trades
 - At the end of each month, the Company hedges its expected EUR payable balance with a one month forward to buy EUR sell USD
 - During the month, new payables will be accrued and existing payables will be paid
 - Company may experience some amount of FX G/L due to timing mismatch and how it accounts for its new AR/AP balances**
 - FASB 133 hedge accounting is not necessary.**

¹ Assumes no forward points for simplicity

FAS 133 guiding principles

- Report all derivatives on the Balance Sheet at fair market value
 - Consistency, completeness, and transparency in financial reporting
- Reflect changes in fair market value of derivatives on P/L in current earnings
 - Unless derivative is designated and qualifies as a hedge
- Provide special accounting to align earnings impact for derivatives qualifying as:
 - Cash flow hedge—Offsets variability of hedged item’s cash flows and converts variable cash flows to fixed
 - Fair value hedge—Converts fixed cash flows to variable
 - Net investment hedge—Offsets B/S translation adjustment and as outlined in FAS 52
 - Record hedge results in Cumulative Translation Adjustment (CTA) account along with translation adjustment

Three hedge accounting “models”

Cash Flow	Fair Value	Net Investment
Offsets variability of hedged item’s cash flows (i.e., forecasted transactions or firm commitments*).	Offsets fair value changes of an existing asset, liability, or firm commitment*, which can impact earnings.	Offsets Balance Sheet adjustment due to FX rates resulting from net investment in a foreign operation. Fluctuations in exchange rates impact capital of entity with investment
Converts variable cash flows to fixed	Converts fixed cash flows to variable	Outlined in FAS 52 (translation exposure)
Record hedge results in Other Comprehensive Income (OCI), and align P/L impact of hedge results with P/L impact of non-booked hedged items	Record hedge results and change in value of the hedged item in current P/L	Record hedge results and change in value of the hedged item in Other Comprehensive Income (OCI)

* Firm commitments can qualify for either fair value or cash flow hedging

Checklist of issues to consider regarding cash flow hedges of forecasted FX exposure

Pre-trade considerations

- Is the exposure "probable" and can you support that the notional of the FX contract will occur?
- Should the hedged item be the recognition of the risk or the subsequent cash flow?
- If it is the recognition, what is the method for recording the USD value of the transaction (or series of transactions for a month)? For example, are the sales or expenses recorded at a month-end rate or average rate?
- Determine whether the "spot" or "forward" method of cash flow hedge accounting will be used for recognition of P&L impact of forward points.
- If trades will be booked in the name of the specific entities with the risk, provide the bank with a list of these entities.
- Other legal considerations include ISDA (for long-dated FX deals) and parent guarantee (for subsidiary dealing).
- Verify the program with your internal and independent tax and accounting professionals.
- Align the FX hedge with the way in which the transaction is recorded (which may eliminate ineffectiveness, but please verify this with your public accounting firm).
- Determine the methodology for relieving OCI to earnings (should coincide with the timing of the earnings impact of the underlying exposure).
- Prepare hedge documentation (verify with public accounting firm).
- Execute trades in the name of the entity with the exposure (or execute back-to-back trades with the parent).

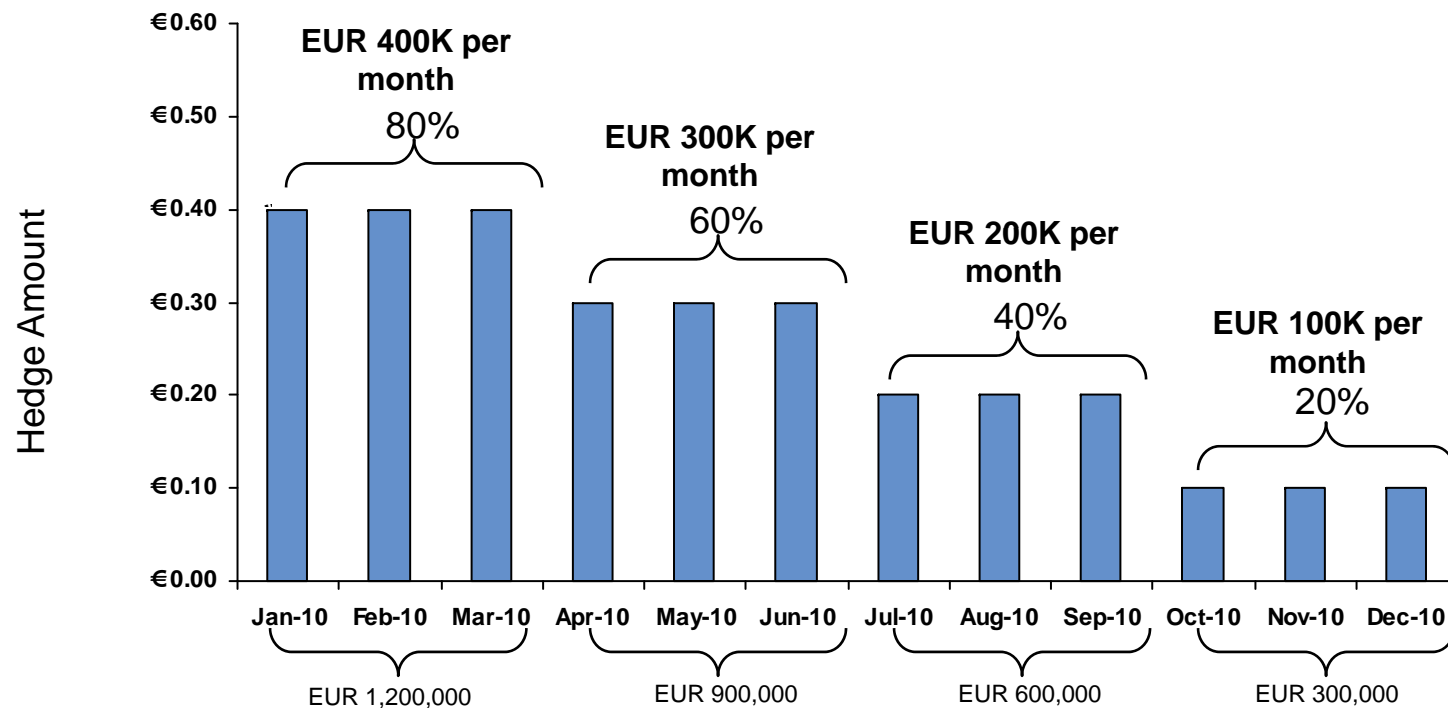
Post-trade / ongoing considerations

- Review effectiveness at each reporting period (if no source of ineffectiveness exists at inception, simply determine whether there are any changes to exposure).
- Review forecasted exposures and determine if adjustments to existing trades are needed.

Establishing the Initial Cash Flow Program by Hedging 50% of Forecasted Exposure

Hedge Program Structure

- On January 2, 2010, the Company initially establishes monthly hedges to cover its annual forecasted EURO Expenses for 2010 (EUR 6 million)
- The EUR 6 million annual exposure is allocated as EUR 1.5 million per quarter
- Within each quarter, the Company establishes monthly hedges of EUR 500,000 (1.50 mio /3) at a respective quarterly layer of:
 - Q1-80%, Q2-60%, Q3-40%, Q4-20%



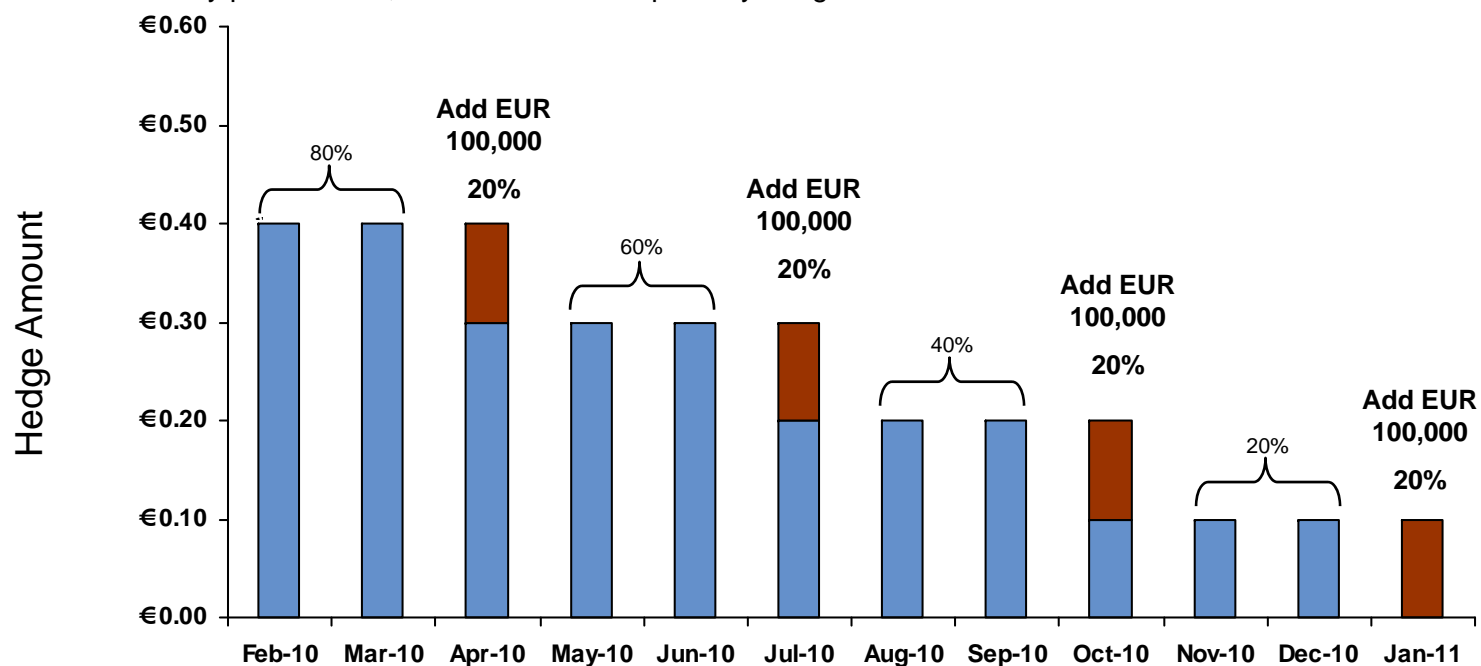
- Initial transaction will be to buy EURO
 - Q1 - EUR 1,200,000
 - Q2 - EUR 900,000
 - Q3 - EUR 600,000
 - Q4 - EUR 300,000
- } EURO 3,000,000 = 50% initial coverage of the annual forecasted Expenses

Rolling and Layering: First month rolls off

Hedge Program Structure

■ January 31, 2010 the Company will :

- Unwind the maturing January 2010 forward hedge
- Adjust the remaining forwards to maintain the quarterly hedge ratios
- Add a new forward for the 12th month at 20% - January 2011
- At any point in time, there are always 4 quarters (12 months) of hedges on the books
- At any point in time, the 80/60/40/20% quarterly hedge ratio is maintained



■ On January 31, 2010, the Company will buy EURO 400,000 to adjust existing forwards and add the new 12th month hedge:

- | | | |
|----------------------------|-------|---------------------|
| - Add to April 2010 | @ 20% | EURO 100,000 |
| - Add to July 2010 | @ 20% | EURO 100,000 |
| - Add to October 2010 | @ 20% | EURO 100,000 |
| - Add to January 2011 | @ 20% | EURO 100,000 |
| - Sum of new hedges | | EURO 400,000 |

Examples of FAS133 friendly FX contracts

FAS 133 Friendly FX Contracts

Product	Description
Forward	<ul style="list-style-type: none"> Exchange of currency notionals on a specific date at the difference between spot and the interest rate differential for the time period
Vanilla Option	<ul style="list-style-type: none"> Purchased insurance against currency appreciation (call options) or depreciation (put options)
Collar	<ul style="list-style-type: none"> Protection from currency appreciation or depreciation within a range
Participating Forward	<ul style="list-style-type: none"> 100% protection at a given level, the client maintains partial participation in favorable market moves on a percentage of its notional
Forward Extra	<ul style="list-style-type: none"> Protection at a “synthetic” forward rate with potential participation in favorable market moves up to a pre-determined trigger, which if breached, will cause any participation to be forfeited.
Capped Risk Forward	<ul style="list-style-type: none"> Protection at a forward rate with participation above/below a risk cap; at inception, the maximum settlement risk of the forward is known (difference between forward and risk cap)
Sliding Forward	<ul style="list-style-type: none"> Protection at a forward rate that has fixed and capped protection and participation
Cross Currency Swap	<ul style="list-style-type: none"> Interest rate swap that creates synthetic debt to match assets and liabilities (fixed, floating, and combinations of FX products as well)

Risk management objectives and policy

FX Hedge objective is to reduce volatility

- The currency risk management objectives are to
 - (a) reduce or eliminate volatility in the USD value of the Company's cash and cash flow
 - (b) to reduce volatility in earnings caused by changes in foreign currency exchange

FX exposure categories: Forecasted risk

- Forecasted exposures
 - Foreign currency denominated third party and intercompany net currency cash flows
- Discretionary hedging of up to [70%], but not less than the minimum base levels specified below, for forecasted net currency exposures
- Maximum hedging tenor of up to [36] months forward, depending on availability and accuracy of forecasts
- Foreign currency exposures will be reviewed on a rolling basis as the Company budgets and forecasts are updated. Minimum level base hedges will be executed as follows:
- Current quarter, [50%] of forecast, Current quarter plus one, [40%] of forecast, Current quarter plus two, [30%] of forecast, Current quarter plus three, [20%] of forecast, Current quarter plus four, [10%] of forecast
- By the first day of each quarter, sufficient additional hedges will be executed to meet the minimum required hedge requirements stated above
- Hedges of forecasted revenues/expenses will qualify as cash flow hedges under FAS 133

Risk management objectives and policy (con't)

FX exposure categories: Transactional risk (balance sheet Hedging)

- Mandatory hedging of at least [80%] of the known net foreign currency denominated monetary balance sheet receivables or payables by currency by entity
- The Company will not elect to apply hedge accounting on its balance sheet hedges and changes in fair value of the hedges will be recorded immediately in earnings

FX exposure categories: Balance Sheet Translation exposure (Net Investment Hedging)

- The Company's net investment in its local currency functional foreign subsidiaries may be hedged on a case by case basis, and must be approved by the [Treasurer]
 - Discretionary hedging of up to [100%] of existing or forecasted foreign denominated cash build-up but never exceeding the Company's net investment in the subsidiary where the cash is located
 - Net Investment hedge accounting will be applied to all Net Investment hedges

FX exposure categories: Acquisitions and divestitures

- Hedging decisions will be made on a case-by-case basis, and must be approved by [Treasurer]
- No hedging will be permitted before a letter of intent has been signed by the Company
- Hedges of forecasted acquisitions and divestitures will not qualify for cash flow hedge accounting under FAS 133
 - Net investment hedge designation may be considered for divestitures

Risk management internal controls

Authorized execution

- All foreign exchange transactions will be managed by Treasury and executed only by those individuals who have been designated as approved traders by the [Treasurer]
- Prior to the execution of a trade, written documentation will be prepared setting forth pertinent information, including the rationale for the trade, currency pair amounts, settlement dates, etc. Trades intended to qualify for hedge accounting treatment under FAS133 must be documented in a manner consistent with the form included in Appendix A
- Approved traders may not also be designated to receive trade confirmations
- Only the [Treasurer] has the authority to extend and revoke trading privileges as well as appoint individuals authorized to confirm trade confirmations. Treasury will maintain an up-to-date list of approved personnel at all times
- After the execution of a foreign exchange transaction, an authorized individual must approve a written confirmation provided by the financial institution via email, fax or through an automated website

Limits

- All transactions up to [US\$25mm] require the approval of the [Treasurer] or other designated individual
- Transactions exceeding [US\$25mm] require written approval of the Treasurer and another member of the FX Committee
- Individual foreign currency option contracts with a premium in excess of [\$250,000] require the approval of the [Treasurer] or other designated individual

Risk management internal controls

Counterparty risk

- Foreign exchange transactions may only be conducted with banks that have minimum credit ratings consistent with the Company's Financial Institution Credit Risk Policy
- Foreign exchange facilities must be established with every financial institution in which foreign currency trades are to be executed
- The credit standings of each institution for which a FX facility has been established shall be reviewed on an annual basis

Confirmation procedure

- After the execution of any foreign exchange transaction (except automated trades of up to US\$[20,000]) the Company - approved foreign exchange trader must approve and transmit written confirmation of the foreign currency type and amount, value date and wire instructions via fax or other electronic means to the financial institution's operations contact
- Some financial institutions may require confirmation of a trade via verbal callback. [Every verbal confirmation will be made with a party other than the person who initiated the trade in question]
- Several days after an authorized person has executed the foreign exchange trade, the financial institution will send back to the Company a trade confirmation, which requires independent review, by someone not employed by Treasury
- All discrepancies shall be brought to the attention of [the Assistant Treasurer] by Company Accounting and Reporting, in a timely manner
- It is the responsibility of [the Assistant Treasurer] to review the confirmations on a timely basis and immediately resolve any discrepancies that arise

Risk management - evaluation

Performance evaluation

- The performance of the hedging program will be evaluated based on the level of reduction of volatility achieved --
 - Forecasted exposure: by comparing (a) earnings at the budget [target] rate, (b) earnings at the hedged rate and (c) the unhedged rate
 - Transaction Exposure: by comparing (a) the amount shown on the FX gain or loss line of the Company's consolidated P&L, (b) the amount that would have been shown without hedging, and (c) zero

Take-Aways

- We live in a volatile world
- Globalization in business is rampant
- Changes in exchange rates can have a material impact on business
- Accounting Rules are in a constant state of flux, and subject to great interpretation
- Solid FX policy is crucial