

Multi-leg Pricer

Quick reference guide

evolve

evolve Multi-Leg Pricer quick reference guide

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Introduction

The **evolve Multi-Leg pricer (MLP)** is a tool which allows you to create quotes consisting of multiple legs, groups of legs and strips of legs.

Using the **Multi-leg pricer** you can also create single and multi-leg line and multi-line graphs, solve to generate a desired result, save and share quotes and, when needed, turn priced quotes into book deals.

Using evolve

evolve has a number of features to help you get results more efficiently and these include:

- evolve will fill in as much default information as possible.
- When you enter data and press the return key, evolve will move the cursor to the next field that requires an entry.
- When you select a field, additional information may be found in the status bar at the bottom of the MLP window.
- When entering a spread, evolve allows partial entry for the second part of the spread. For example, if you were to enter 1.33/5 in the spot field, evolve will display 1.3300 / 1.3305.

The MLP window

| Summary | Leg 1 | Leg 2 | Leg 3 (Forward Extra) | | | |
|--------------------|-----------------|-----------------|-----------------------|-------------------|---------------|---------|
| Strategy | Vanilla | One Touch Up | Vanilla | Reverse Knives | | |
| Direction | HSBC BUY | HSBC SELL | HSBC BUY | HSBC SELL | | |
| City | New York | New York | New York | New York | | |
| Calendar | Cal on USD | Cal on USD | Cal on USD | Cal on USD | | |
| Maturity | 0M | 0M | 0M | 0M | | |
| Legacy Date | Mon 17-Dec-2007 | Mon 17-Dec-2007 | Mon 17-Dec-2007 | Mon 17-Dec-2007 | | |
| Delivery Date | Wed 19-Dec-2007 | Wed 19-Dec-2007 | Wed 19-Dec-2007 | Wed 19-Dec-2007 | | |
| Strike | 125.00 | | 125.00 | 125.00 | | |
| Barrier | | 125.00 | | | | |
| High Barrier | | | | | | |
| Amount | USD | USD | USD | USD | USD | USD |
| 123.55 | Spot | 123.55 | 123.55 | 123.55 | 123.55 | 123.55 |
| 120.76 | Forward | 120.76 | 120.76 | 120.76 | 120.76 | 120.76 |
| 2.79 | Swap | -2.79 | -2.79 | -2.79 | -2.79 | -2.79 |
| 5.200% | Deposit CCF1 | 5.200% | 5.200% | 5.200% | 5.200% | 5.200% |
| 0.000% | Deposit CCF2 | 0.000% | 0.000% | 0.000% | 0.000% | 0.000% |
| 0.03% | ATM Vol | 6.82% | 6.82% | 6.82% | 6.82% | 6.82% |
| | Price Spread | 6.31% / 6.58% | 7.51% | 0.06% | 6.50% / 6.71% | 0.25% |
| HSBC Fee: 0.784% | TV (atm) | 0.6735% | 0.6854% | HSBC Pay: 1.041% | 2.43% | 1.4214% |
| HSBC Fee: 0.542% | Pric | 0.5630% | 0.624% | HSBC Pay: 0.070% | 2.345% | 1.2834% |
| HSBC Buy: 2179.61% | Spot Delta | 22.08% | 205.50% | HSBC Buy: 90.57% | -68.25% | 42.21% |
| HSBC Buy: 2230.65% | Forward Delta | 22.69% | 2158.33% | HSBC Buy: 182.45% | -60.12% | 42.33% |
| -60.254% | Gamma | 0.49% | -60.89% | | 0.11% | 0.08% |
| -4.08% | Vega | 0.21% | 5.10% | -0.01% | 0.27% | 0.39% |

The MLP window is split into 4 sections.

The common input area (top of the window) has fields for your currency pair, spot date and horizon. It also includes booking fields when the booking wizard is running.

The next section (coloured red) is for inputting data which is required to get a price for a deal. The fields that are available will change depending on which product you are pricing, you will need to fill in most of the fields in the top section to get a price.

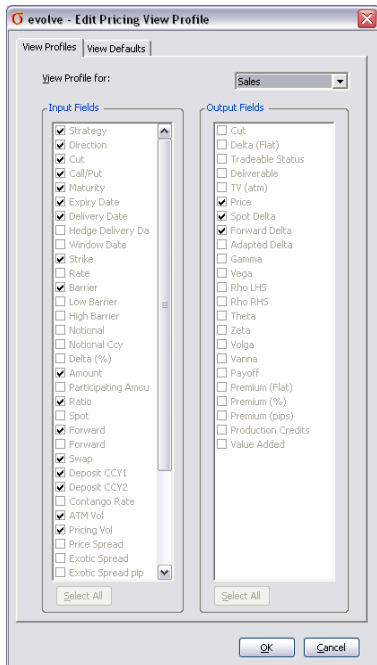
The next section (coloured light grey) is for market data which evolve obtains for you. If you change details in the top section, evolve will automatically update the market data for you, EXCEPT spot. Spot is frozen from when you finish inputting a currency pair, but can be updated (along with all of the market data)

by pressing

The bottom section (coloured dark grey) shows prices and Greeks.


Note: The MLP window can be 'detached' from evolve by dragging it away, pressing + or selecting **Detach from evolve** from the **View** menu.

View profiles



View profiles control how much information is displayed on the **Multi-leg pricer** depending on your role.

If you have multiple views available, you may switch

between them using the  key or by selecting **Switch view profile** from the **View** menu.

If you have sufficient privileges, you may edit your view

profiles by pressing  +  +  or by selecting **Edit pricing view** profile from the **View** menu.

Pricing a Single Leg

| Currency Pair | | USD/JPY | Horizon | | Fri 15-Jun-2007 |
|-------------------|---------------|-----------------------|---------|-------------------|-----------------|
| Spot Date | | Tue 19-Jun-2007 | | | |
| Summary | | Leg 1 | | Leg 2 | |
| ... | Strategy | Vanilla | ... | Reverse Knockin | ... |
| ▼ | Direction | HSBC BUY | ▼ | HSBC SELL | ▼ |
| ▼ | Cut | New York | ▼ | ... | ... |
| ▼ | Call/Put | Call on USD | ▼ | ... | ... |
| | Maturity | 6M | | | |
| | Expiry Date | Mon 17-Dec-2007 | | | |
| | Delivery Date | Wed 19-Dec-2007 | | | |
| | Strike | 125.00 | | | |
| | Barrier | | | | |
| | Low Barrier | | | | |
| | High Barrier | | | | |
| USD | Amount | USD | | | |
| | Ratio | | | | |
| 123.55 | Spot | 123.55 | | | |
| 120.76 | Forward | 120.76 | | | |
| -2.79 | Swap | -2.79 | | | |
| 5.370% | Deposit CCY1 | 5.370% | | | |
| 0.809% | Deposit CCY2 | 0.809% | | 0.809% | |
| 6.83% | ATM Y2 | 6.83% | | 6.83% | |
| | Pricing Y01 | 6.31% / 6.58% | | | |
| | Price Spread | 0.06% | | 0.39% | |
| HSBC Rec 3.2214% | TV (atm) | 0.67 1/2% | | 3.92 1/4% | |
| HSBC Rec 3.3414% | Price | 0.56 1/2% / 0.62 1/4% | | 3.52% / 3.90 1/4% | |
| HSBC Sell 104.98% | Spot Delta | 22.08% | | -82.89% | |
| HSBC Sell 107.84% | Forward Delta | 22.49% | | -85.16% | |
| -0.73% | Gamma | 6.49% | | 7.22% | |
| -0.07% | Vega | 0.21% | | 0.28% | |

1. Grid Created with leg already in it
2. Type in a **Currency pair** this will unlock the grid and fill in the **Horizon** and **Spot Date**
3. The Grid will now unlock
4. To enter a **Strategy**, either enter the strategy code if you know it, or click the ellipsis button and select it from the list

Note: Depending on which strategy you select, different fields will be available to you. For example, a Risk Reversal will create a group, where only the summary fields are editable.

5. Enter data in the key fields for the product

Note: **Ratio** links the relative weighting between notionals of different legs


6. The **price** and Greeks will be calculated and displayed by evolve.

Caution: This printed version (1.0 - Issued) is valid on the day it is printed only. Check the online version to ensure that you are working with an up-to-date copy.

Errors, warnings and limits

| Currency Pair | | EUR/USD | Horizon | | Mon 11-Jun-2007 |
|---|---------------|-----------------------------|---------------------------|-----------------|-----------------|
| Spot Date | | Wed 13-Jun-2007 | | | |
| Summary | | Leg 1 (RR) « | | | |
| | | Summary | Leg 1.1 | Leg 1.2 | |
| ... | Strategy | Risk Reversal | Vanilla | Vanilla | |
| ▼ | Direction | HSBC SELL | ▼ HSBC SELL | ▼ HSBC BUY | |
| ▼ | Cut | New York | ▼ New York | ▼ New York | |
| ▼ | Call/Put | | ▼ Put on EUR | ▼ Call on EUR | |
| | Maturity | ON | ON | ON | |
| | Expiry Date | Tue 12-Jun-2007 | Tue 12-Jun-2007 | Tue 12-Jun-2007 | |
| | Delivery Date | Thu 14-Jun-2007 | Thu 14-Jun-2007 | Thu 14-Jun-2007 | |
| | Strike | 1.4560-1.5670 | 1.4560 | 1.5670 | |
| EUR | Amount | EUR 12,000 | EUR | EUR | |
| | Ratio | 0 | | | |
| 1.3345 / 1.3346 | Forward | 1.3345 / 1.3346 | 1.3345 / 1.3346 | 1.3345 / 1.3346 | |
| 0.5 | Swap | 0.5 | 0.5 | 0.5 | |
| 3.810% | Deposit CCY1 | 3.810% | 3.810% | 3.810% | |
| 5.240% | Deposit CCY2 | 5.240% | 5.240% | 5.240% | |
| 5.30% / 7.70% | ATM Vol | 6.50% | 5.30% / 7.70% | 5.30% / 7.70% | |
| | Pricing Vol | 6.83% < 6.83% | 6.83% | 6.83% | |
| EUR | Premium CCY | EUR | ▼ EUR | ▼ EUR | |
| 0 | Price | -9.10% < / -9.10% | 9.10% / 9.10% > | 0.00% | |
| 0 | Spot Delta | 109.09% | -109.09% | 0.00% | |
| 0 | Forward Delta | 109.10% | -109.10% | 0.00% | |
| 2, 0 errors, 7 limits, 1 warnings | | | | | |
| LIMIT on Leg 1 : Time to expiry too short | | | | | |
| LIMIT on Leg 1.1 : Volatility cannot be spread | | | | | |
| LIMIT on Leg 1.1 : Delta outside defined limits | | | | | |
| LIMIT on Leg 1.1 : Time to expiry too short | | | | | |
| LIMIT on Leg 1.2 : Volatility cannot be spread | | | | | |
| EUR/USD (1) | | | | | |

If data that you have entered causes an error, exceeds tradeable price limits or generates a warning, or a change in market data causes an error, limit or warning;

- an exclamation symbol (!) will be displayed at the top right corner of the screen,
- the leg/group in question will be highlighted in a different colour,
- and a relevant message explaining the problem will be displayed at the bottom of the screen.
- To view the error message:
 - click on the  symbol, press again to remove
 - or hover your mouse pointer over the relevant leg and a 'tooltip' will show the error.

Note: Please ask the trading desk if you are in any doubt.

Choosing/ un-choicing

| | | |
|----------|-----------------|--------|
| TV (atm) | 1.79% | 1.79% |
| Price | 1.76½% / 1.82½% | 1.79½% |

By default, the **MLP** shows the un-choiced (or bid and ask rates) in the market data and pricing-related fields. It is possible to show the choiced (or mid rates) instead.

1. To toggle between choiced and un-choiced data
 - Select **Toggle market data choice mode** from the **Pricing** menu, or
 - Press **F3**
2. To toggle the Choosing of an individual leg use



Note: Toggle once choices all relevant market data apart from the Pricing Vol, toggling again choices everything. (no price spread).

Note: If market data is choiced, the leg header will change colour to bring it to your attention.

Setting spreads

The **MLP** lets you spread market data, volatility and price, even if you have selected to view mid rates only. You enter spreads in individual fields, which then revise related values accordingly.

To set a spread, enter your first value, a space or / as a separator, then your second value. To clear a spread, press backspace.

Note: See page 22 for formatting.

Adjusting entry data and market data

| | | |
|---------|-----------------|-----------------|
| Spot | 1.3400 / 1.3500 | 1.3399 / 1.3402 |
| Forward | 1.3504 / 1.3604 | 1.3501 / 1.3504 |

In certain fields in the Entry data section (such as **expiry** and **delivery dates, strike** and **amount**) and some fields in the market data section (such as **spot, forward, deposit, ATM Vol** and **Pricing Vol**), the values can be adjusted up and down by preset amounts using the **Insert** and **Delete** keys respectively.

Note: When overwriting or updating data it turns blue and can be cleared by backspace to return to the value provided by evolve in grey

- To toggle between Call and Put, click in the required leg and press **F2**.

Note: When using toggle functions such as call/put, buy/sell, exclude/include and so on, if you click in a group summary row or the main summary row, every leg within will toggle.

- To toggle between Buy and Sell, click in the required leg and press **Ctrl** + **↑ Shift** + **B**.
- To toggle between excluding and including legs from pricing, press **Ctrl** + **E**.


Note: If you change data in the **MLP**, evolve will automatically update the market data for you, EXCEPT spot. Spot is frozen from when you finish inputting a currency pair. Evolve will also re-calculate the price for you.

Working with Your price

| | | | |
|----------|---------|---------------|----------------|
| HSBC Rec | 3.80¼% | TV (atm) | 1.93¼% |
| HSBC Rec | 3.93% | Price | 1.90% / 1.96½% |
| HSBC Buy | 97.23% | Spot Delta | 48.62% |
| HSBC Buy | 99.87% | Forward Delta | 49.94% |
| | -15.98% | Gamma | 7.99% |
| | -0.55% | Vega | 0.27% |

| | | | |
|----------|------------|---------------|-------------------|
| HSBC Rec | 1,900,880 | TV (atm) | 966,534 |
| HSBC Rec | 1,965,255 | Price | 950,440 / 982,628 |
| HSBC Buy | 48,617,146 | Spot Delta | 24,308,573 |
| HSBC Buy | 49,936,859 | Forward Delta | 24,968,429 |
| | -7,989,406 | Gamma | 3,994,703 |
| | -274,702 | Vega | 137,351 |

TV adjustment

Evolve will show prices in appropriate units. You can toggle between % / Pips and amounts using .



The system will select appropriate % or Pip units depending on combination of Notional CCY and Premium CCY.

Legs show Position/Value of trade. The summary shows the Delta hedge you must trade and the premium you will pay or receive.

Note: Delta hedge will always be expressed in CCY1.

The highlighted (pink) line is the tradeable price. This can only be dealt if the results area is not hatched and the leg heading is not coloured.

TV adjustment allows you to adjust the price of the option by altering the ATM TV. The system will calculate a TV adjustment to make the TV(atm) into a tradable price, but this field can be overtyped, or you may

use the  and  keys to nudge the percentage up and down respectively.


Price Spread

Adding More legs


| File Quote Pricing Booking View Help | | | |
|--------------------------------------|---------------------------|--------------------------|--|
| Currency Pair: USD/JPY | | Horizon: Tue 19-Jun-2007 | |
| Spot Date: Thu 21-Jun-2007 | | | |
| Summary | Leg 1 | Leg 2 | |
| Strategy | Vanilla | Vanilla | |
| Direction | HSBC SELL | HSBC SELL | |
| Cut | New York | New York | |
| Call/Put | Call on USD | Call on USD | |
| Maturity | 3M | | |
| Expiry Date | Mon 19-Nov-2007 | | |
| Delivery Date | Wed 21-Nov-2007 | | |
| Strike | 123.61 | | |
| Low Barrier | | | |
| High Barrier | | | |
| Amount | USD | USD | |
| Ratio | | | |
| 123.58 / 123.63 | Spot 123.58 / 123.63 | 123.58 / 123.63 | |
| | Forward 121.24 / 121.29 | | |
| | Swap -2.34 | | |
| | Deposit CCY1 5.327% | | |
| | Deposit CCY2 0.764% | | |
| | ATM Vol 6.62% / 6.82% | | |
| | Pricing Vol 6.28% / 6.51% | | |
| | Price Spread 0.05% | | |
| HSBC Rec 0.901% | TV (atm) 0.931% | | |
| HSBC Rec 0.881% | Price 0.821% / 0.881% | | |
| HSBC Buy 31.34% | Spot Delta 31.34% | | |
| HSBC Buy 32.05% | Forward Delta 32.05% | | |
| -8.55% | Gamma 8.55% | | |
| -0.23% | Vega 0.23% | | |

You can override the default price spread in either Pips or %. The system will select the appropriate units depending on the combination of premium and notional currency.

To add a leg to a group;

- Click in one of the legs of the group and press , or
- Right click on the group title and select **Add new product leg**, or
- Select **Add new product leg** from the **Quote** menu.

To add a new separate leg;

- Select an individual leg and press , or
- Select **Add new product leg** from the **Quote** menu.

Selecting multiple legs/groups

| Leg 2 (Test Group) << | | | | | |
|-----------------------|-------------|---------|-------------|---------|-----------|
| Summary | Leg 2:1 | Leg 2:2 | Leg 2:3 | Leg 2:4 | |
| ... | Vanilla | ... | Vanilla | ... | Vanilla |
| ... | HSBC SELL | ... | HSBC SELL | ... | HSBC SELL |
| ... | New York | ... | New York | ... | New York |
| ... | Call on USD | ... | Call on USD | ... | Put |
| ... | ... | ... | ... | ... | ... |


Duplicating a leg

Duplicate Leg





Please enter number of duplicates to create:

OK Cancel

To select contiguous legs:

1. Click on the header of the first leg or group
2. Press  and click on the header of the last leg or group
3. The first, last and all legs/groups in between will be selected.

To select non-contiguous legs:


1. Click on the header of the first leg or group
 2. Press  and click on the header of each required leg or group
 3. All the selected legs/groups will be highlighted, but not the legs/groups in between.
1. Select the leg or group to be duplicated
 - Right click and select **Duplicate Leg/Group multiple times**; or
 - Press  +  +  to duplicate the leg once
 2. Enter the number of duplicates required
 3. Click **OK**
 4. The new legs or groups will be added at the end of the current quote.

Deleting a leg


Groups of legs

| | | |
|----------------------|---------|---------|
| Leg 2 (Test Group) « | | |
| Summary | Leg 2:1 | Leg 2:2 |

Adding a group of legs

1. Select the leg or group to be deleted
 - Right click and select **Delete Leg/Group**; or
2. Press .
3. You can exclude a leg from pricing without having to delete it. Right click on the leg, and select **Exclude leg from pricing**.

Complex products that consist of multiple legs are displayed as groups of legs in evolve. Groups of legs can also be created by the user to form complex products.

1. Select **Add new group of legs** from the Quote menu, or
 - Press , or
 - Right click on the MLP and select **Add new group of legs**
2. Enter a display name for the group
3. Click **OK**.

Moving Groups and Legs

| | Leg 1 | Leg 2 (Group) « | |
|---------------|-----------------|-----------------|-----------------|
| | | Leg 2.1 | Leg 2.2 |
| Strategy | Vanilla | | |
| Direction | HSBC | | |
| Cut | New | | |
| Call/Put | Call | | |
| Maturity | 9M | | |
| Expiry Date | Wed | | ec-2007 |
| Delivery Date | Thu | | ec-2007 |
| Strike | 9800 | | |
| Low Barrier | | | |
| High Barrier | | | |
| Amount | USD | | |
| Ratio | | | |
| Spot | 1.07 | | |
| Forward | 1.06 | | .0717 |
| Swap | -50.0 | | .0678 |
| Deposit CCY1 | 5.39 | | 3.8 |
| Deposit CCY2 | 4.81 | | |
| ATM Vol | 6.35 | | .61% |
| Pricing Vol | 6.89 | | 7.36% |
| Price Spread | 0.08 | | |
| TV (atm) | 7.94% | 1.83% | 6.32% |
| Price | 7.97% / 8.0734% | 1.80% / 1.8715% | 6.34% / 6.4234% |
| Spot Delta | 80.11% | 48.60% | 81.98% |
| Forward Delta | 83.39% | 49.92% | 84.20% |
| Gamma | 2.35% | 8.38% | 3.21% |
| Vega | 0.13% | 0.27% | 0.11% |

To move a leg/group:

1. Click on the header of the required leg or group
2. Right click and select **Cut**
3. Right click on the leg that you want the cut leg to appear in front of and select **Paste**.

To copy a leg/group:

1. Click on the header of the required leg or group
2. Right click and select **Copy**
3. The copied leg/group may now be pasted wherever required, by right clicking on the leg/group that you want the copied leg/group to appear in front of and select **Paste**.

Strips

The Strip wizard allows you to create strips of deals across various dates as required.

Note: Formulae in Strips.

Absolute formulae in strips will be accepted by the strip wizard. If you have relative formulae in strips, the wizard will prompt you to remove the formulae, make the formulae absolute, or keep them relative.

If you choose to keep them relative, the wizard will make the first leg in the strips' formulae absolute and all subsequent legs will be absolute from there on.

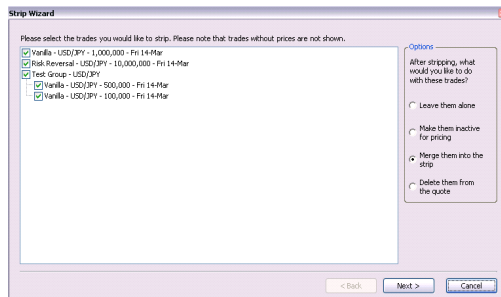
Adding a strip

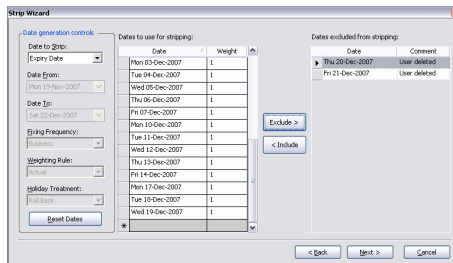
Make sure you have priced legs. Legs without prices will not show in the wizard.

1. Select **Strip wizard** from the **Quote** menu
2. Select the trades to be stripped

Note: Only trades with the same delivery dates can be stripped together.

3. Select what you would like to do with the original legs when the strip has been created
4. Click **Next**
5. Use the **Date generation controls** to create your future trade dates
6. Select dates to exclude from the strip and click **Exclude** if required
7. Click **Next**






8. Enter a name for the strip
9. Check the box to place all legs with the same date in a group each if required
10. Click **Finish** to create the strips.

Scratchpad legs

| Scratchpad |
|-------------------|
| 665000 |
| |
| 650000 |
| |
| 66783.88387917848 |
| |

Scratchpad legs allow you to enter values and calculations which can be referred to from formulae within other legs.

1. Open a scratchpad leg by selecting **Add new scratchpad leg** from the **Quote** menu, or by pressing .

Note: You can enter figures anywhere at all in the scratchpad leg. The figures you enter do not have to relate to the rows that they are in.

Summary legs

| Summary | Leg 1 | Leg 2 |
|---------------|-----------------|-----------------|
| Strategy | Vanilla | One Touch Up |
| Direction | HSBC SELL | HSBC SELL |
| Cut | New York | New York |
| Call/put | Call on USD | |
| Notional | 4M | 4M |
| Expiry Date | Mon 17-Dec-2007 | Mon 17-Dec-2007 |
| Delivery Date | Wed 19-Dec-2007 | Wed 19-Dec-2007 |
| Strike | 122.00 | |
| Barrier | | 125.00 |
| Amount | USD | USD |
| Ratio | | |
| Spot | 123.53 | 123.53 |
| Forward | 120.74 | 120.74 |
| Swap | -2.78 | -2.78 |
| Deposit ECY1 | 5.370% | 5.370% |
| Deposit ECY2 | 0.614% | 0.614% |
| ATM Vol | 6.63% | 6.63% |
| Pricing Vol | 6.60% | |
| Price Spread | | |
| Risk Reversal | -0.50% | |
| Strangle | 0.02% | |
| Premium ECY | USD | USD |
| TV (atm) | 1.454% | 69.27% |
| TV Adjustment | | 3.11% |
| Price | 1.37% | 72.3716% |
| Spot Delta | 39.49% | 2091.88% |
| Forward Delta | 40.77% | 2148.98% |
| Gamma | 8.11% | 467.48% |
| Vega | 0.27% | 5.24% |
| Zeta | -0.06% | |

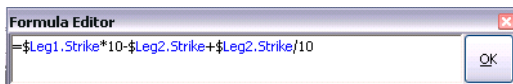
When you create a multi-leg deal or select a multi-leg product, a summary leg is created. Where selections/data is common across all legs, it is displayed in the summary leg.

Changing data in the summary leg will affect all of the child legs.

One can also hide summary legs by right clicking on each group summary or group title (to hide every summary in the group), then select **Hide Summary**, repeat this step to re-show the summary leg.


Data common across legs is displayed in Summary

Using formulae



evolve has the option to use “MS Excel-like” formulae in its cells.

In cells where this is available, the simple mathematical operators such as +, -, * and / may be used. Also relative and absolute references to other cells may also be used.

1. Click in the required cell
2. Enter an = sign
3. The formula editor will open
4. Enter the formula as necessary
5. Click in another cell to create a reference
 - Enter \$ to make the cell an absolute reference, or remove for a relative reference, or
 - Press  to toggle the \$ on or off.
6. Click **OK** to finish.

Note: You cannot link live market data into formulae (only inputs – highlighted in blue)

Solving

| File Quote Pricing Booking View Help | | | | |
|--------------------------------------|---------------|-----------------|-------|-----------------|
| Currency Pair | | USD/JPY | | Horizon |
| Spot Date | | Wed 20-Jun-2007 | | |
| Summary | | Leg 1 | | Leg 2 |
| ... | Strategy | Vanilla | ... | Vanilla |
| ▼ | Direction | HSBC SELL | ▼ | HSBC SELL |
| ▼ | Cut | New York | ▼ | New York |
| ▼ | Call/Put | Call on USD | ▼ | Call on USD |
| | Maturity | 6M | | 6M |
| | Expiry Date | Tue 18-Dec-2007 | | Tue 18-Dec-2007 |
| | Delivery Date | Thu 20-Dec-2007 | | Thu 20-Dec-2007 |
| | Strike | ? | | 121.02 |
| | Low Barrier | | | |
| | High Barrier | | | |
| USD | Amount | USD | | USD |
| | Ratio | | | |
| 123.64 | Spot | 123.64 | | 123.64 |
| 120.85 | Forward | 120.85 | | 120.85 |
| -2.79 | Swap | -2.79 | | -2.79 |
| 5.340% | Deposit CCY1 | 5.340% | | 5.340% |
| 0.783% | Deposit CCY2 | 0.783% | | 0.783% |
| 6.85% | ATM Vol | 6.85% | | 6.85% |
| | Pricing Vol | | | 6.80% |
| | Price Spread | | | |
| HSBC Rec | 1.81½% | TV (atm) | | 1.61½% |
| HSBC Rec | 1.80% | Price | 1.80% | 1.80% |
| HSBC Buy | 46.66% | Spot Delta | | 46.66% |
| HSBC Buy | 47.93% | Forward Delta | | 47.93% |
| -8.08% | | Gamma | | 8.08% |
| -0.28% | | Vega | | 0.28% |

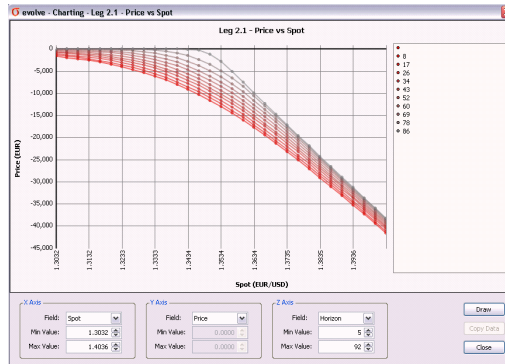
The **MLP** also allows you to reverse calculate (solve) many of the values in the fields. For example, you might want to calculate the strike level of an option for a specified price, or to calculate the vol given a certain price.

1. Enter the required details for a leg
2. Edit (overwrite) the field that you wish to solve from and press return
3. Enter a ? in the field that you wish to calculate (your variable)
4. Press return.

Note: Solver can also be used on the Summary leg to solve for premium

Note: evolve will remember that solving has been set for a particular field and will continue to solve for that field. Typing a new value in the 'variable' field or pressing the Backspace key will remove the solving function.

Creating a chart



If legs have all the required data, evolve can draw a single-line or multi-line chart of the data for you.

The x and y (and z if multi-line) axis can be changed as can their upper and lower limits depending on your requirements.

1. Make sure the data that you wish to chart is complete
2. Right click on the leg and select **Line chart** or **Multi-line chart** as required

Note: If you right click on a summary row, the legs within the group will be charted, or you can select multiple legs and right click to graph the selected legs.

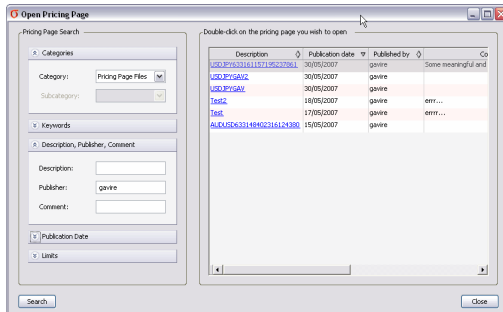
3. Set the x and y axis and limits (and the z axis and limits if required)
4. Click **Draw** to produce the chart


Saving a quote



5. Select **Save as** from the **File** menu
6. Enter a description to help you to retrieve the file later
7. Enter any comments as required
8. Click **Save**.

Opening a quote



1. Select **Open** from the **File** menu
2. or press 
3. Use the **Pricing page search** criteria to limit your results as required

Note: The search will default to show every quote that you have saved and will automatically update as you change your criteria.

4. Click on the name of the quote that you wish to open.

Formatting

Evolve is particularly flexible with respect to the format of data it accepts and recognises;

1. Date

- 17 June 2007, 17 June (brings up current year), 17 Jun 07 170607, 17 06 07, 17/06/07, 17-06-07, 17/06, 17 06, 17-06
- 1d, 1w, 1m, 1y.
- Dates can also be entered by double-clicking in the date field, then double-clicking again to open the date picker. Clicking on the required date will enter it into the field.

Note: evolve does not accept US date format.

2. Spot

- evolve will take a variety of forms of data for spot depending on the currency pair. For example, for EUR/USD “1356” will be displayed as 1.3560. For USD/JPY “2” will be displayed as 200.

Note: evolve will display 0.98 as 9800.




















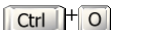



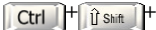


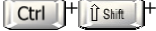


3. Amount

- Currency code then 1k, 1m, 1b, 1ex (standard form). For example usd1m gives USD 1,000,000.

4. Strikes

- **as/atms** = at the money spot.
- **af/atmf** = at the money forward.
- **a0s/atmstraddle** = atm zero delta straddle.
- **a/atm** = ATM convention (static data, spot, fw, 0 delta straddle).
- **20d** = 20 delta spot.
- **20fd** = 20 forward delta.

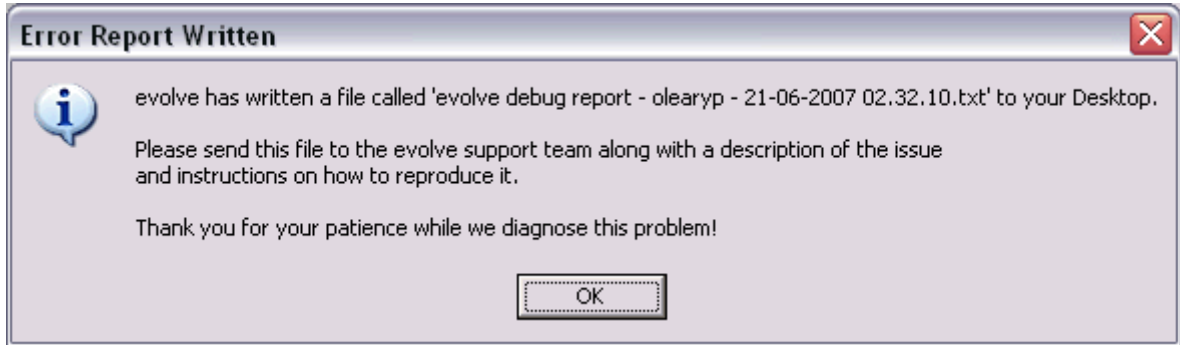
Keyboard shortcuts

| | | | |
|---|---|--|---|
|  | Calculate/recalculate results. |  | Start booking wizard. |
|  | Toggle call/put. |  | Delete selected leg. |
|  | Choice/unchoice quote market data. |  | Exclude selected leg from pricing. |
|  | Flip quote convention. |  | Detach current window from evolve. |
|  | Add a new leg (if a group is selected, the new leg will be added to the group). |  | Add new group of legs. |
|  | Toggle result display units between percentage and premium currency. |  | Create a line chart. |
|  | Clear quote. |  | Create a multi-line chart |
|  | Refresh market data. |  | Open a saved quote. |
|  | Switch view profile. |  | Save the quote. |
|  | Unchoice market data for selected leg only. |  | Toggle buy/sell on the selected leg. |
|  | Flip orientation between vertical and horizontal. |  | |
|  | Increases dates or values by preset amounts in input and market data fields. |  | Create one duplicate leg from the selected leg. |
|  | Decreases dates or values by preset amounts in input and market data fields. |  | |
| | |  | Add new scratchpad leg. |
| | |  | |
| | |  | Removes overwritten data and restores market data/price data. |

Help

If you encounter any errors with evolve:

1. Select [Report an issue to evolve support](#) from the [Help](#) menu



2. This will create a file on your desktop (as below)



3. Email the file to [#evolve Support](#)