APPENDIX B

How to Calculate Pip Values and Examples

DEFINITION

A *pip* is the smallest unit of price movement for any currency pair. For pairs with the JPY as the counter currency, it's 0.01 Yen. For all other pairs, it's 0.0001 of the counter or quote currency.

For example:

- For the EURUSD and most other pairs, movement from 1.4000 to 1.4001 is one pip.
- For the USDJPY, a movement from 80.00 to 80.01 is one pip.

Its cash value is always in terms of the quote currency (the one on the right), which you then convert to whatever currency your account is denominated in, using the currency pair price, which is the actual exchange rate.

CALCULATION

Happily, you needn't go through the following, because there are plenty of free pip calculators you can find online, and the better brokers will provide pip calculators, or their dealing platforms will show pip values in whatever currency your account is denominated.

Still, just so you know, here's the calculation.

The basic formula for calculating a pip value (in the quote or counter currency—the one on the right):

- Pip value per lot equals 1 pip (0.0001 for most currency pairs, or 0.01 if the JPY is the counter currency)
- Divided by the exchange rate or current price of the pair
- Times lot size (in base currency)

Or,

(1 pip/exchange rate or price of the pair)

$\times$ lot size [in base currency—the one on the left]

$=$ pip value in the quote currency [the one on the right]

You'll then need to convert the result into the currency in which your account is denominated if that is different from the base currency. (This will all become clear in the following examples.)

Note that a standard lot size is 100,000 units of the *base* currency (the one on the left). Most online retail brokers offer mini accounts in lot sizes of 10,000 units, and micro accounts in lot sizes of 1,000 units.

EXAMPLE: EURUSD

Assuming a standard 100,000 lot size, and EURUSD price of 1.4000, account denominated in USD:

$(0.0001/1.4000) \times 100,000 = \$7.14$/pip for a standard lot

($0.74/pip for a mini lot, $0.074/pip for a micro lot)

If you are trading 3 lots, each pip would be worth 3 times that amount.

If your account is denominated in USD, you'd be finished.

If it is in EUR or JPY, then you'd need to convert the $7.14 into that currency.

For example, if the account is denominated in EUR, then:

$\$7.14 \times 1.4000$ dollars per Euro $= €10.00$/pip/standard lot,

€1.00/pip/mini lot, €0.1000 per micro lot

HANDY RULE OF TENS

When the account is denominated in the base currency, pip values are in units of 10 (except when the JPY is the counter or quote currency).

This illustrates how, when the account is denominated in the base currency, the pip value is:

Standard (100,000 lots base currency): 10 units of the currency in which your account is denominated.

Mini (10,000 lots base currency): 1 unit of the currency in which your account is denominated.

Micro (1,000 lots base currency): 0.10 units of the currency in which your account is denominated.

For instance:

In the earlier EURUSD example, if the account is denominated in Euros, then each pip would be worth €10 for a standard lot size, €1 for a mini lot, and €0.1 for a micro lot.

With any currency pair in which the USD is the base currency (with the majors, that only happens with the USDJPY and USDCAD), the pip value of the USDCAD in a USD-denominated account would be $10 per standard lot, $1.00 for a mini lot, and $0.1000 for a micro lot.

This rule is handy for those who trade the major pairs with EUR or GBP denominated accounts, because these are usually the base currencies. The EUR takes precedence over all others as the base currency, followed by the GBP. Thus the EURGBP is the only major pair with the GBP as the quote or counter currency.

EXAMPLE USDCAD

Assuming a standard 100,000 lot size, and USDCAD price of 1.01935, denominated in USD:

$$(0.0001/1.01935) * 100,000 = 10.1935 \text{ CAD/pip}$$

Divide that value by the 1.01935, and you get $10/pip for a standard lot size, $1 for a mini, and $0.10 for a micro account.

EXAMPLE USDJPY: RULE OF TENS DOESN'T APPLY WITH THE JPY

The exception to this rule occurs when the JPY is the quote currency (all the time with the majors) because pips are in increments of 0.01 not 0.0001.

Assuming a standard 100,000 lot size, and USDJPY price of 80, account denominated in USD:

$0.01/80 \times 100,000 =$

¥12.50/standard lot, ¥1.25/pip/mini lot, ¥0.125/pip per micro lot

Converting that to USD: ¥12.5/80 = $0.15625/pip for a standard lot, $0.01562/pip for a micro lot, and so on.

Pip calculation is a bit more complex for cross currencies. For the sake of brevity I'll leave that for your own online search.[1]