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# THE FOREX CHARTIST COMPANION

## A Visual Approach to Technical Analysis

Michael Duane Archer and James Lauren Bickford

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*A Visual Approach to Technical Analysis*

MICHAEL D. ARCHER
JAMES L. BICKFORD

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# Contents

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# Introduction

Trading in the foreign exchange (forex) currency markets has recently exceeded $2 trillion a day and this figure is expected to double within the next five years. The reason for this astonishing surge in trading popularity is quite simple: no commissions, low transaction costs, easy access to online currency markets, no middlemen, no fixed lot order sizes, high liquidity, low margin with high leverage, and limited regulations. These factors have already attracted the attention of both neophyte traders and veteran speculators in other financial markets.

## ABOUT THIS BOOK

Immediately following the publication of *Getting Started in Currency Trading* (also by Mike Archer and Jim Bickford, John Wiley & Sons, 2005), the authors received an overwhelming number of inquiries and requests for more detailed information on the mechanics of currency day trading, market entry timing, and which positions to initiate in forex markets.

The authors hope to fill that void with the publication of the current volume. We have concentrated our primary focus on the most lethal weapons in the technical analysis arsenal: the traders' charts, pristine in their concept and dynamic in their visual presentation of both raw and processed data. Numerous groundbreaking and innovative additions to charting theory have been included here. Also several well-known classical charting types have been updated and modified to scrutinize the unique characteristics of forex data.

## HOW THIS BOOK IS ORGANIZED

There are six major divisions in this book:

### Part I: Forex-Specific Charting Techniques

Much of the material in this section originally appeared in a collection of technical currency studies called *Forex Charting Companion: Innovative Charting Techniques for*

*Currency Traders* (Syzygy Publishing, 2005) by the same co-authors. Many of the charts along with the corresponding data have been revised to reflect the current personality of the spot currency market.

## Part II: Point and Figure Charting

Point and figure (P&F) charting was invented in the 1890s and has since evolved into a highly respectable technical analysis tool for detecting market entry signals. Although P&F was originally designed for use on the stock exchange, all the examples in Part II focus directly on the spot currency markets (with some startling results). This section is actually a revised update of *The Point & Figure Chartist's:Companion: The Computer-Side Reference for Currency Traders and Analysts*, also by the co-authors (Syzygy. Publishing, 2005).

## Part III: Forex Swing Charting

Like their sibling P&F charts, swing charts are also members of that genre of charts normally referred to as reversal charts. Their shared *advantage* is their ability to filter out minor price fluctuations and highlight the critical inflection points in a price chart. This section is also an update of an earlier work entitled *The Swing Trader's Companion: The Computer-Side Reference for Swing Traders and Analysts* (Archer and Bickford, Syzygy Publishing, 2005).

## Part IV: Other Reversal Charts

Both Western and Japanese reversal charts are examined in detail in this section. Knowledge of unusual and exotic charting techniques can only benefit the currency day trader since this knowledge assists in scrutinizing the same data through a different perspective.

## Part V: Goodman Swing Count System

In this section, the authors examine the actual trading system of veteran trading guru Charles B. Goodman. His unique theories and hypermodern principles are accompanied by numerous practical studies and examples.

## Appendixes

We have gone to extreme measures to ensure that readers will have more than ample study materials to assist them in their daily trading sessions. To this extent we have supplied a very exhaustive appendix, which essentially mirrors the contents of the book. This section is intended to be a computer-side reference guide to be used while traders are working online in their currency platforms. We have also included some Microsoft

Visual Basic 6.0 source code in the appendixes for those traders who home-brew their own forecasting programs.

## DISCLAIMER

We wish to emphasize that spot currency trading may not be suited to everyone's disposition. All investors must be keenly aware of the risks involved and of the consequences of poor trading habits and/or mismanaged resources. Neither the publisher nor the authors are liable for any losses incurred while trading currencies.

PART I

# Forex-Specific Charting Techniques

# CHAPTER 1

# Streaming Data

## OVERVIEW

The smallest time unit between changes in the price of any currency pair is called a single *tick*, and a sequence of consecutive ticks is referred to as streaming data. During periods of heavy trading, there may be as many as three hundred ticks in a single minute. Conversely, during periods of low trading (such as in certain minor currency pairs over the weekend), several hours can elapse between individual ticks.

Tick data does not have an open, high, low, or close quote—it simply tells the prevailing price. The OHLC quotes occur only after tick data has been collected and coerced into interval data, such as one minute, one hour, one day, or any other selected duration.

## TICK CHART

By definition, interval data is represented along the x-axis as equally spaced time segments. By contrast, tick data almost always distorts the representation of time along the x-axis, although it does remain continuous. Between January 1, 2000 and December 31, 2005, the number of ticks in a single minute in the EURUSD currency pair ranged from zero to three hundred. These variations produce an accordion effect on the x-axis. (See Appendix A for a list of world currency codes.)

In the tick chart of the euro/U.S. dollar currency pair shown in Figure 1.1, a continuous line represents the price, while the time scale at the bottom of the chart fluctuates by the number of ticks per time interval. This is the sole criterion that distinguishes tick charts from other line charts. The chart clearly shows a variation in the number of ticks per minute as time progresses.

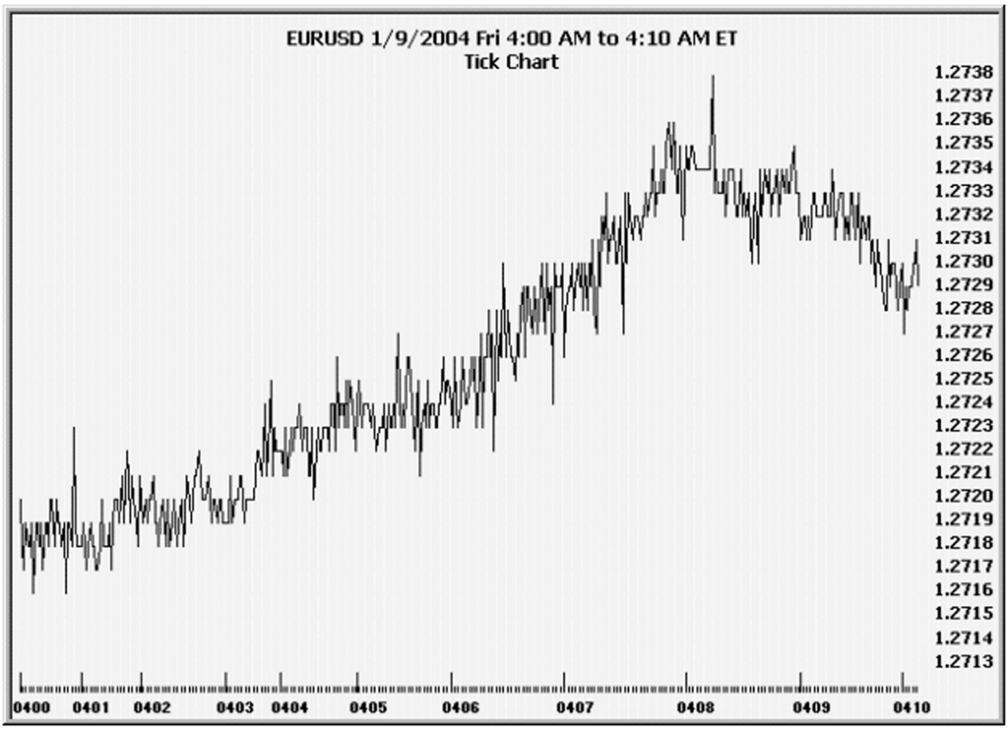


**FIGURE 1.1** EURUSD Tick Chart

## SPREAD CHART

Nearly all financial vehicles can be plotted as some form of a spread chart based on some unique properties of the underlying instrument. In futures markets, a spread chart usually implies the comparison of a forward expiry month with a distant expiry month in the same commodity. Within spot currency markets, a spread chart is defined specifically as the difference between the bid price and the ask price, which currency dealers use as the transaction cost for a round-turn trade in that currency pair.

The ask price is the price that the trader pays when entering the market in a long position; the bid price is used when the trader enters the market short.

The currency spread chart is plotted as a channel chart in which the upper boundary is the bid price and the lower boundary is the ask price. (See Figure 1.2.)

The importance of the spread chart is that it is the most common method used to display streaming data in online trading platforms. The trader can readily see the buying price (the lower boundary) and the selling price (the upper boundary).

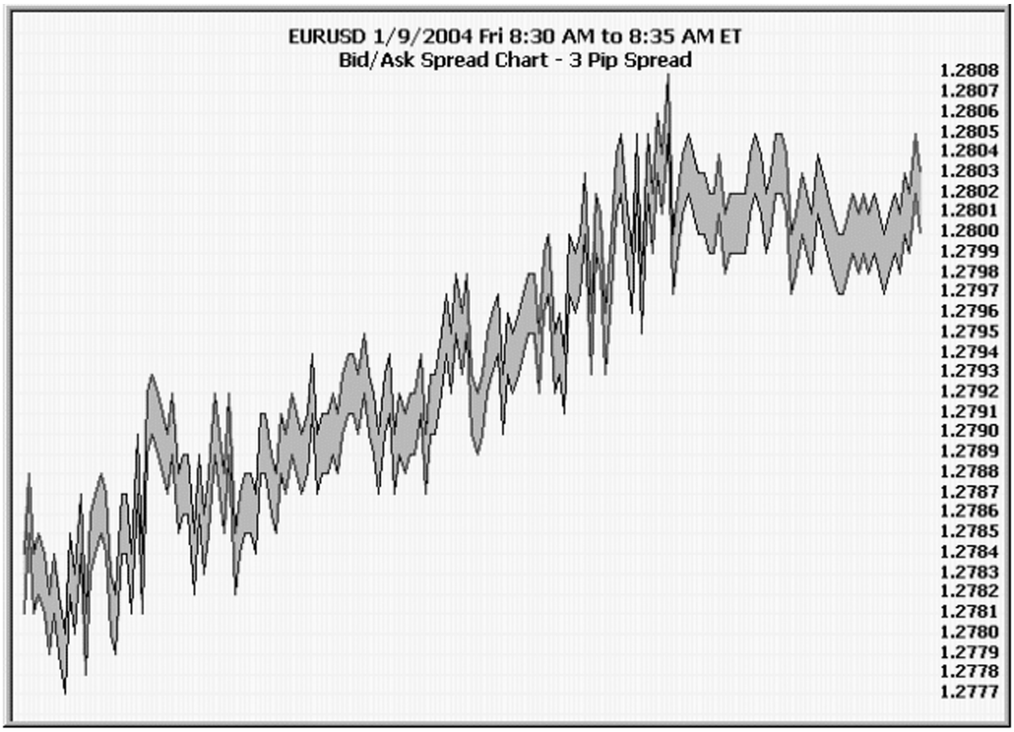


**FIGURE 1.2** EURUSD Spread Chart

## CONCLUSION

Understanding the nature of spot currency data in its most primitive form (raw streaming tick data) is requisite knowledge for all traders.

## CHAPTER 2

# Activity

## OVERVIEW

When analyzing spot currency interval data, it should be noted that all six quote fields (open, high, low, close, upticks, and downticks) can be derived directly from the streaming tick data. An uptick occurs every time the current price exceeds the magnitude of the previous price within the prescribed interval. Similarly, a downtick occurs whenever the current price is lower than the previous price.

## ACTIVITY BAR CHART

Given the two fields upticks and downticks, we define activity as shown in Figure 2.1, where $x$ is the array index in the time series.

Activity is displayed as vertical bars in the lower portion of the five-minute chart in Figure 2.2. The empty rectangles are upticks, while the shaded rectangles are downticks.

In the long-term chart (Figure 2.3), note that activity in the EURUSD currency pair nearly tripled during the 2000–2004 period.

$$\text{Activity}_x = \text{Upticks}_x + \text{Downticks}_x$$

**FIGURE 2.1** Activity Formula

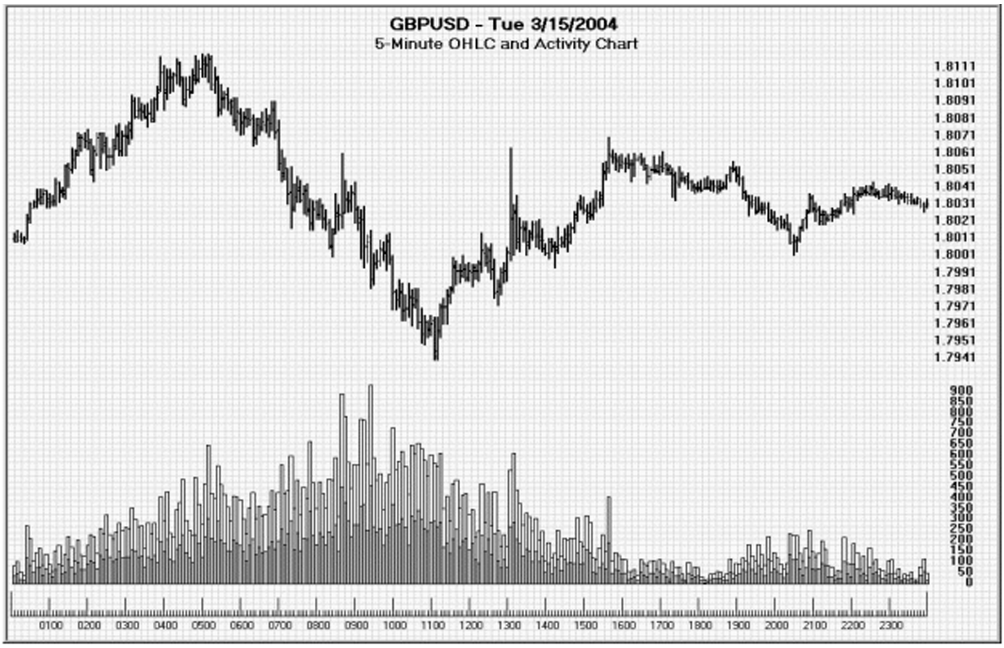


**FIGURE 2.2** Activity Expressed as Vertical Bars

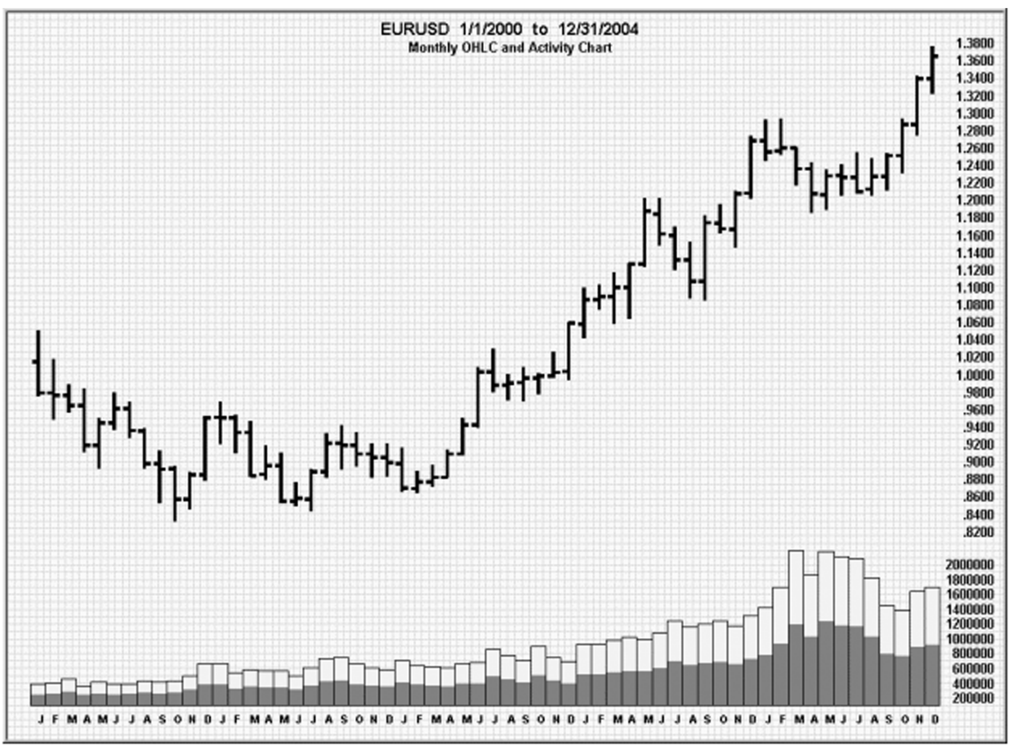


**FIGURE 2.3** Long-Term Activity

## COMPOSITE ACTIVITY

The foreign exchange is a 24/7 global market (with reduced liquidity on Saturdays and Sundays, of course). The importance of activity is extremely useful for traders in determining when to trade. For this purpose, we developed two composite charting techniques to show traders when trading activity is at its highest and lowest for each currency pair: the time of day chart and the day of week chart. Composite charts are simply the average activity for each time interval sampled over a long time frame.

## TIME OF DAY ACTIVITY CHART

In Figure 2.4, multiple time intervals have been plotted where each average value has been centered. That is, the three-minute average for 10:00 A.M. is the mean of the activity for 9:59 A.M., 10:00 A.M., and 10:01 A.M. rather than front-based averaging (9:58 A.M., 9:59 A.M. and 10:00 A.M.).

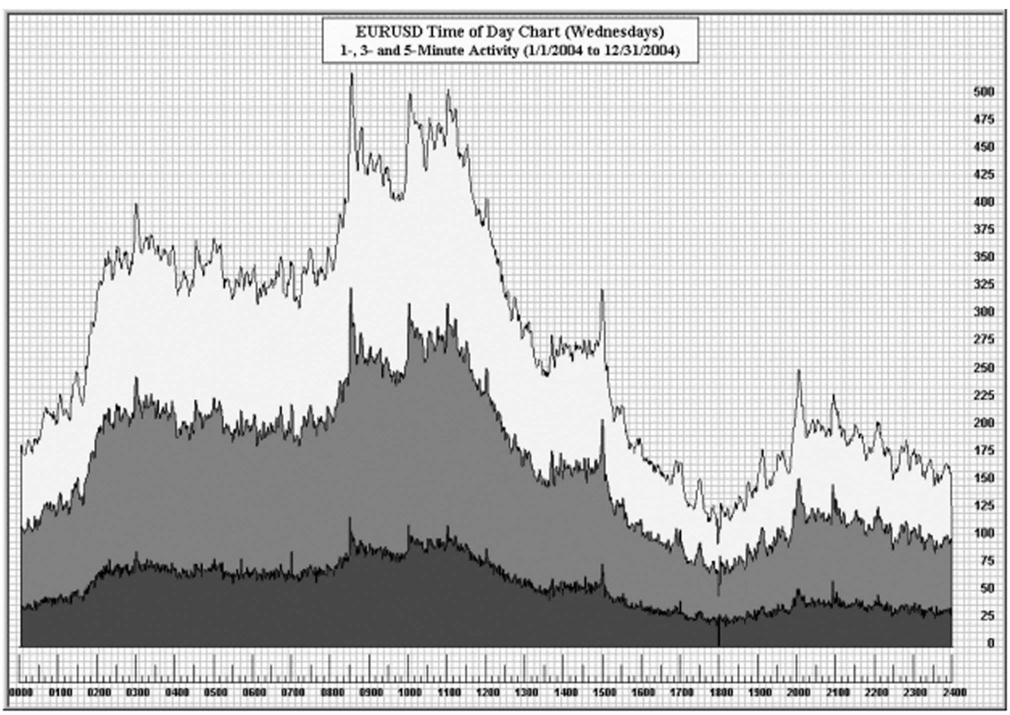


**FIGURE 2.4** Time of Day Activity Chart