



Follow the action

General thinking is that volatility provides day-trading opportunities — actually, opportunities lie in larger daily ranges. So, where is the day-trading action? You may be surprised.

By Rick Thachuk

Many retail traders who embark on a day-trading program often do so expecting that opportunities will be available every day in liquid markets (such as the U.S. Treasury bonds). In actuality, in most markets, there are a significant percentage of days when the high-to-low trading range is too narrow to generate much trading or to enable many day-trading systems to achieve a profitable perfor-

sistent basis for retail day-traders who need only to monitor a few markets and then follow the action.

Experienced day-traders know that, just as in position trading, there are times when you watch the market and wait and end the day having done little or no trading. After all, the market must first move sufficiently in price to generate a system's trading signal or convince discretionary day-traders that a reliable trend

risk. This also holds true for the E-Mini S&P 500 contract.) A half-point range or less between the day's high and low, equaling \$500 per contract or less, does not provide much opportunity for retail day-traders. How often does this size range, in fact, occur?

"Narrow range" (right) shows the frequency of daily range values of T-bonds since January 1996. The daily range value is calculated as

I left Williamson's and tried other brokers' offices.

In every one of them I lost money.

It served me right, because I was trying to force the market into giving

me what it didn't have to give — to wit, opportunities for making money.

— Reminiscences of a Stock Operator



mance. For professional floor traders who are physically limited to their own trading pit, and for large institutional customers whose need for liquidity restricts their domestic trading markets primarily to the S&P 500 and T-bond futures, not much can be done on these quiet days.

However, the retail day-trader who transacts only a few contracts at a time, has more flexibility to trade other markets, partly because liquidity doesn't need to be as deep. Knowing what markets tend to heat up as others cool down can help in finding opportunities on a more con-

or pattern has emerged. For the retail day-trader not physically located in the trading pit, who therefore cannot react quickly and who does not reap the benefit of discounted fees that come with high volume trading or an exchange membership, the minimum daily price movement is likely to be even larger.

Consider, for example, the 30-year T-bond market. (This market may be more relevant than the S&P 500 market for most retail day-traders, as the latter has become expensive to trade both in terms of margin requirements and

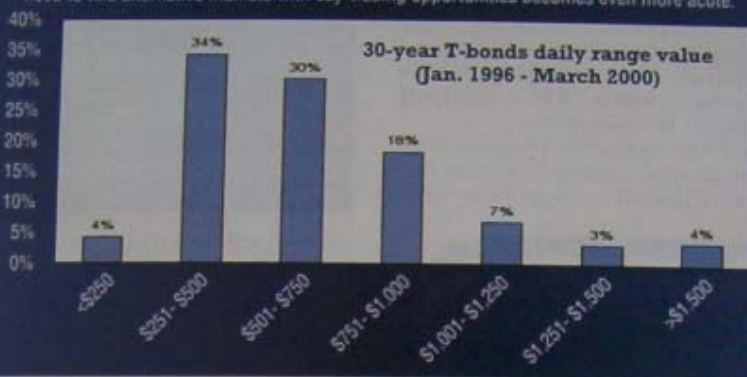
the high price for the day minus the low price expressed in dollars per contract.

Comparing range and volatility value

Although volatility and range value are similar, range value better measures opportunities for the day-trader. Volatility typically is constructed using the change between closing prices of a market. This can be misleading in describing the opportunity presented by a market for the day-trader because it incorporates overnight activity. For example, a market that opens limit up and

NARROW RANGE

The daily range value of T-bond futures since 1996 shows that limited ranges or quiet activity occurs more often than most traders expect. Because quiet days tend to occur together, the need to find alternative markets with day-trading opportunities becomes even more acute.



stays at that price all day will generate a high volatility measure, but provides little or no opportunity for the day-trader. A better measure is the difference between the regular trading session high and low price expressed in dollars per contract. This is the range value.

To answer the previously posed question, the daily range value in bonds since 1996 has been \$500 per contract or less 38% of the time. This means that retail day-traders who confine their activity to the bond market may find that they do little or no trading, on average, one out of every three business days. Moreover, relatively quiet days tend to occur together, so the opportunity to generate income as a bond day-trader can be constrained for prolonged periods of time. If day-trading is regarded as a business, can a business stay open if nothing is done one out of every three days?

"Narrow range" (above) also provides information on the likelihood of reaping large daily returns. For instance, a bond trader who expects to make \$1,000 per contract profit will realistically need, as a prerequisite, a day's trading range of over \$1,250 per contract. Based on history, a daily range value in excess of \$1,250 has occurred only 7% of the time since 1996. In other words, the opportunity to earn \$1,000 per contract may only arise one or two days per month, on average. Of course, the trader must then be on the correct side of the market to earn his expected profit.

Diversify, diversify Diversification provides the solution to the problem of quiet trading days. Usually, diversifying a portfolio is undertaken with the objective of mitigating price risk. This is accomplished by grouping markets whose prices tend to move in different directions. As the price of one commodity is increasing, the price of another is decreasing, and vice-versa. In the case of diversifying a day-trading portfolio, however, the motivation is different.

The relevant factor to the day-trader is the range value, and diversification is done to ensure that the day-trader always will have at least one market that is active enough (in terms of having a sufficient range value) to provide a day-trading opportunity. Markets within the portfolio are selected such that as one market enters a period of rela-

tive tranquility (range values become small), another becomes more active (range values become large).

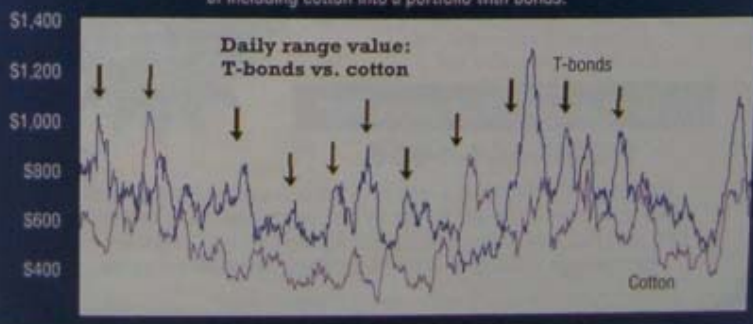
In practice, this means monitoring several markets in the portfolio and being prepared to trade in whichever one appears to provide the best opportunity. The ability to diversify in this way gives the retail trader an advantage over the large institutional client who is constrained by liquidity concerns and the pit trader who is geographically restricted to only one or a few markets.

Where's the action? "Ample opportunities?" (page 36) identifies the average daily range value for selected markets, each having sufficient liquidity for the retail day-trader having a small to medium-sized account. The average daily range value for bonds over the period is \$682 per contract. This means that if a bond trader could have bought the low and sold the high every day, the average profit per contract would have been \$682, not including commission and fees. Obviously, it is impossible to buy the low and sell the high with any regularity, so this figure represents the maximum and is not realistic. Nevertheless, this value can be used to gauge the effectiveness of a day-trader's bond program in terms of identifying how close the net profit per contract is to this maximum number.

Some markets, such as natural gas and coffee, have an average daily range value greater than that of bonds, but may be undesirable because they are more risky. ■

COMPLEMENTARY COTTON

This chart depicts the daily range value (averaged over a one-month period) of bonds and cotton. Obvious periods of divergent movements, highlighted by arrows, illustrate the value of including cotton into a portfolio with bonds.



➔ Other markets, such as sugar and orange juice, have an average daily range value less than bonds, but may be undesirable because they will require that more contracts be traded, thus increasing commission and transaction fees.

When selecting markets to include in your portfolio, attempt to equate risk among component markets. Average daily range values can be used to equate risk by determining comparative transaction sizes

among markets. For example, one contract of cotton carries similar risk to one contract of soybeans, and each carries only half the risk of one contract of natural gas. For the day-trader, comparing range values in this way provides a more accurate determination of risk among markets than comparing volatility measurements.

Of the markets presented in "Ample opportunities?" consider cotton. It has an average daily range

AMPLE OPPORTUNITIES?

Market	Average daily range value (Jan. 1996 to Mar. 2000)
T-bonds	\$682
Sugar	\$219
Orange juice	\$344
Soybeans	\$513
Cotton	\$519
Heating oil	\$607
Natural gas	\$1,015
Coffee	\$1,817

value slightly less than that of bonds and cotton's value in the day-trader's portfolio stems from the observation that it tends to be active when bonds are quiet, and vice-versa. This can be seen in "Complementary cotton" (page 35), which plots the daily range value of bonds and cotton beginning in 1996. (The values have been averaged over a one-month period to make the series smoother.) The arrows highlight obvious periods of range value divergence between cotton and bonds.

The negative correlation of the change in range values provides important diversification. During periods when bonds are relatively quiet, a compensatory opportunity is more likely to arise and hence, trading occur, in the cotton market. By moving among a small group of properly selected markets, the day-trader can create a more consistent stream of trading opportunities. Even though the cotton market was studied here, in practice, day-traders should test all candidate markets to determine their value in terms of diversification and how they perform within their own trading system.

A day-trader needs active markets to provide the opportunity to earn income. In any one market, quiet days are inevitable and may occur more often than expected. To lower the number of quiet markets you participate in, monitor a small portfolio of markets selected so that as one becomes tranquil, another tends to increase in activity. By following the action, you will be able to take advantage of a more consistent stream of day-trading opportunities. **FM**

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