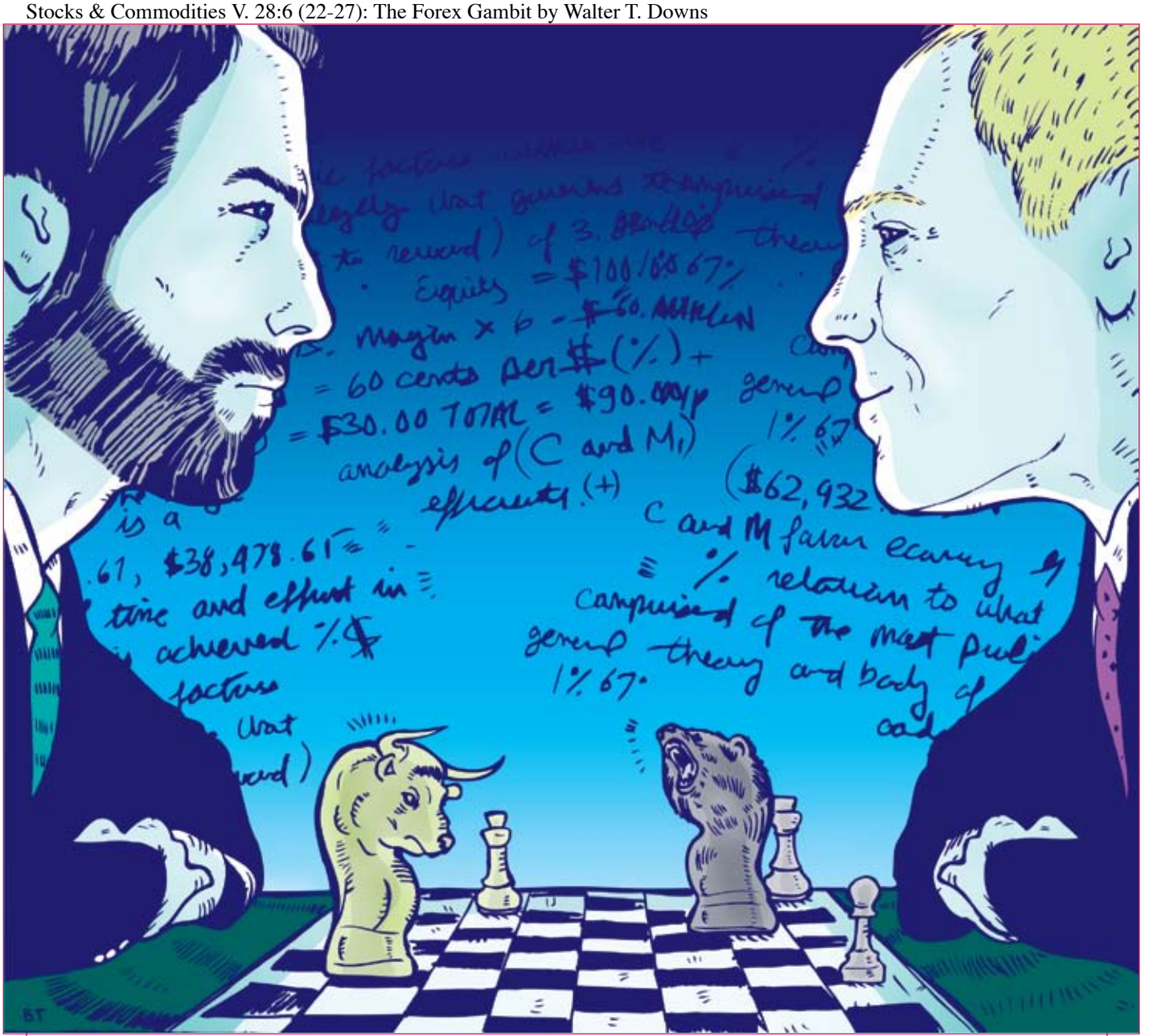

BRIAN TAYLOR

Game Plan In Accordance

The Forex Gambit

This trading strategy uses logic and analysis from math and chess. It's bold, it's aggressive, and you don't lose sight of risk.

by Walter T. Downs

I am an advanced chess player, and I have an advanced education in esoteric mathematics. Together, these two disciplines embody powerful logic and methods of analysis. I have created a system based on the idea of the *gambit*, a term borrowed from chess. In its essence, it is the sacrifice of material in order to launch a bold attack. The gambit is everything a trading system should be: audacious, dynamic, and fluid. When it is successful, it reaps great rewards.

Here, when I am referring to logic and analytical technique from chess and math, I will refer to chess as "C," and to math as "M":

C and M both favor economy of time and effort in relation to what is achieved.

In this regard, a *daily* time frame is the best choice. C and M both state that the optimal strategy is composed of the most prolific factors within the general theory and body of knowledge that governs the system. The general theory of technical analysis is:

- Market action discounts everything.
- Prices move in trends.
- History will repeat itself.

Within the body of knowledge, the most prolific factor that governs trend is the simple moving average (SMA). The most prolific price used is the closing price. The period used for the SMA is determined by M and is a value that has statistical significance. Therefore, the value used is 30.

Within the body of knowledge, the most prolific factors that govern market entry are the correction (a brief countermove before the trend resumes) and the breakout (price action moving above or below a defined point).

C and M state that the factor used should be the one with the least risk and greatest reward potential. In this regard, the correction is the right choice. Within the body of knowledge, the most prolific factors of the correction are an action (countermove) and reaction (proof of resumption of the trend).

Here is a simple definition of a correction:

- A bullish correction is two lower lows (action) and a closing price greater than the midpoint of the bar (reaction proving resumption of uptrend).
- A bearish correction is two higher highs (action) and a closing price less than the midpoint of the bar (reaction proving resumption of downtrend).

Now, let's specify our risk point. This is the point at which we will admit that our prediction of future events is wrong.

C and M dictate that the most prolific option should be used. For long positions, this point is just below the low of the bar on which you entered the trade. For short positions, this point is just above the high of the bar on which you entered the trade.

Now, you must specify the points at which you will exit a trade that does not hit your risk point and moves in your favor. C and M state that these points are dictated by time, and the most likely point at which a bullish or bearish phase is complete.

Taking this into consideration, we come up with the following exits:

- When a bar occurs the range of which is greater than the previous three ranges and the close of which is in the top 10% of the bar, exit a long position on the first closing price that is lower than the previous closing price.
- When a bar occurs the range of which is greater than the previous three ranges and the close of which is in the bottom 10% of the bar, exit a short position on the first closing price that is higher than the previous closing price.
- Close any position that has been in the market 16 days.

We now have all the factors we need to build the system.

THE SYSTEM

- ***Buy*** two lower lows and a closing price that is greater than the midpoint of the bar and is above the SMA.
- ***Place*** a stop-loss order just below the entry bar.
- ***Sell*** two higher highs and a closing price that is less than the midpoint of the bar and is below the SMA.
- ***Place*** a stop-loss order just above the entry bar.
- When a bar occurs whose range is greater than the previous three ranges and whose close is in the top 10% of the bar, ***exit a long position*** on the first closing price that is lower than the previous closing price.
- When a bar occurs whose range is greater than the previous three ranges and whose close is in the bottom 10% of the bar, ***exit a short position*** on the first closing price that is higher than the previous closing price.
- ***Close*** any position that has been in the market 16 days.
- ***Move*** stop-loss orders to break even on any trade that has been in the market two days.
- ***Take*** only one trade at a time. Another trade is not opened until this trade is closed. Often, you will have multiple trade entry signals in several markets. Take the trade with the least risk.
- ***Trade*** all available currency pairs.

According to the logic and analysis of C and M, this is an efficient system. Figure 1 shows a *buy* pattern, *exit* condition met, and *long* position exit. Figure 2 shows a *sell* pattern, *exit* condition met, and *short* position exit. It is at this point we will use C and M to create the forex gambit.

You need to establish a trading account that represents minimum risk. First of all, open a micro trading account with a reputable forex broker. (The brokerage should have a deep financial base, and be a member of the CFTC and NFA, the two organizations that look after investor interests in the United States.)

Fund the account with $300. Your leverage level should be set to 100 to 1, which is the maximum leverage allowable under the law. Your unit size should be 1,000 units.

What will this mean to you in practical terms? If you open a one-lot position, the margin requirement would be $8–16, and the value of your position would be $0.08–0.13 per pip (also known as a tick).

According to M, C, and gambit play, we will now seek to gain maximum profit in the shortest possible time. Thus, we come to the aspect of bet/position sizing. We will use the logic of M to place optimal bets. The number of lots to trade is the number that brings the dollar amount risked plus margin closest to but not greater than your trading equity. Here's an example:

FIGURE 1: A BUY PATTERN. The blue square indicates a completed buy pattern (two lower lows, and a C > midpoint of bar and > SMA). The turquoise square indicates that the exit condition has been met (A range > three previous ranges and a C in top 10% of the bar). The yellow square indicates the trade exit (C < previous C).

Margin = 10.00
Risk = 50 (the difference between entry price and your stop-loss order)
One lot = 10 cents per pip
Trading equity = $100

You would *buy* or *sell* six lots.

Margin x 6 = $60
Six lots x 10 cents = 60 cents per pip x pips at risk (50) = $30
Total = $90 (nearest to but not greater than the trading equity)

You funded your forex micro account with $300. When you begin trading, treat $200 of this amount as your reserve, and consider $100 as your trading equity. Any amount of money you accumulate over and above your reserve is treated as trading equity. So if you had an initial trading equity of $100 and you made $50, you would have a trading equity of $150. This amount would be used to calculate your bet/position size.

Thus, your bet/position size varies with your trading equity. If your trading equity is reduced to an amount that does not allow enough for multiple lots, reduce your positions to one lot.

If total equity were $205, you would only have $5.00 above your reserve. Trade only one lot. If you lose more and move deeper into your reserve, continue to trade only one lot. Continue to do this until your trading equity returns to a level above your $200 reserve level. Once you move back above your reserve level, you can once again trade multiple lots.

As an example, if your total equity were $195, you would trade one lot. If you then had a winning trade and your total equity went to $250, you would have a trading equity of $50 and would have enough to apply the bet sizing formula and trade multiple lots:

Total equity ($250) – reserve ($200) = $50 trading equity

TESTING THE FOREX GAMBIT

Now we will test and analyze our system. We will explore some concepts familiar to C but are not in the general theory and knowledge base of accepted techniques for testing and analyzing market systems.

C understands a dynamic and ever-changing game. It knows that the patterns of the system will have variations that deviate in small ways. The accepted system testing application is to pop the pattern, stops, and take-profit algorithm into a computer and consider the testing results as a valid representation of how well the system will operate in the market.

To C, this approach is an error in logic. The computer functions in a vacuum. It does not consider variations as patterns unfold and play out, nor does it consider the various market states that can be in effect when the patterns occurred.

FIGURE 2: A SELL PATTERN. The red square indicates a completed sell pattern (two higher highs, and a C < midpoint of bar and < SMA). The turquoise square indicates that the exit condition has been met (A range > three previous ranges and a C in the bottom 10% of the bar). The yellow square indicates the trade exit (C > previous C).

The computer is not dynamic in its interpretation of events. It is a static interpretation of a dynamic, fluid environment.

Computer testing of a system often seriously understates the viability of a system. The cure for this is to walk through your trades manually. Just as a chessmaster alters his game plan in accordance with the exact position on the board, so too should the trader alter his game plan as events are unfolding. The trader should retain the patterns theme, but alter his trading in dynamic ways in response to the variation he is seeing at that particular moment.

Some possible variations to consider when walking through the trades are:

- A windfall profit made in just a few days — consider exiting.
- A closing price very near the midpoint criteria — consider entering.
- A buy or sell pattern that occurs after price has had a parabolic move and is very distant from the SMA — consider standing aside.
- When you are sitting on a large open profit and the exit conditions are almost correct — consider exiting.
- A buy or sell pattern that is almost correct and is very near the SMA — consider entering.

In accordance with C, walking through the trades also carries a powerful benefit. As you walk through the trades and continually study the variations, you will get a feel for how patterns play out in the future. Your grasp of the variations and powers of intuition will grow stronger as time passes, and so too will your success with the system.

Chess players who practice this method can look at any variation of a pattern and pick the right move for the position without the need for deep analysis or calculation. Bearing in mind the strong analogy between C and trading, it is logical to assume that the same results will occur.

You should trade mechanically and remove all subjectivity from trading. C, and the tenets that guide gambit play, suggest an alternate approach:

> *A trader's style should be one of highly systematic discretion (HSD)*

The trader honors the theme of the pattern but considers variations as well. Thus, the trader remains fluid and dynamic in an environment that is exactly that.

SYSTEM TEST RESULTS

In three runs of 90 random trades, Figure 3 shows the variances you can expect with the forex gambit. Two runs scored excellent profits, earning $38,478.61 and $84,089.81, respectively. The third was a home run, earning $11,423,358.91. The time taken to complete the 90 trades was 159 trading days for each run.

Rather than the underestimated findings [illegible]ter test, our approach takes an optimistic view what the system is capable of. It has been my personal experience using highly systematic discretion (HSD) that the generated statistics (not counting the bet sizing algorithm that is a feature of the forex gambit) are not out of line with what occurs in real trading. As the HSD trader develops a deeper understanding of variations, the system results just keep getting better.

Now that we have the test results, we should take a look at the logic of the bet/position sizing algorithm. Is it too aggressive? Is our gambit unsound?

To answer that question, I call on M and the Kelly formula†. The Kelly formula is defined as:

(Odds x winning percent – losing percent)/Odds

The formula specifies a maximum bet size compared to the equity of your account. If the percentage of equity that you bet exceeds the formula, it is considered too aggressive or a foolish bet.

Combining all our test results, we get an average winning percentage of 67% and average odds (risk to reward) of 3.03:1. Applying the Kelly formula, we see that we should risk up to 56% of equity per trade. The most our algorithm ever bets is a maximum of about 40% of equity. We are not exceeding the Kelly limit. This implies that our betting scheme is smart.

The other question that springs to mind is, given the test results, what is the risk of ruin, or odds that I will deplete my $300 if I follow the betting algorithm and account management criteria? The answer from M is that you have a less than 1% chance of that happening. See the sidebar on page 26 to determine how I came to the 1%.

SUMMING UP

We have based our system on the most efficient technical foundation. In order for us to fail, technical analysis itself must fail. The forex gambit is what trading is all about. It is a bold, aggressive attempt to gain the maximum profit while not losing sight of risk.

Instead of underestimating systems with computer testing, we choose the HSD walk-through method, which errs on the side of optimism, and we hope that we have made a case for our beliefs being closer to reality than the commonly accepted approaches.

HSD will turn you into a real trader, not a computer technician! The worst you can do is lose $300, and the profit potential is, for all intents and purposes, unlimited. So why not give the forex gambit a try?

Take any forex currency pair and perform your own walk-through testing using HSD and the betting algorithm. Further, it would be of interest to code the rules and test the system with a computer to see just how divergent a mechanical approach is in comparison to the HSD test results.

Walter Downs is an independent systems analyst and trader. He holds a doctorate in esoteric mathematics and is a chessmaster and a member of the International High IQ Society. Currently, he is involved in implementing optimal mathematical forex systems for fx-mathematics.com.

RISK OF RUIN FOR THE FOREX GAMBIT

Here's how the risk of ruin (ROR) was determined for the forex gambit. In order to determine the "risk of ruin" or "gambler's ruin" as it is commonly referred to, the following formula was used (written in a format that can be plugged into Microsoft Excel as a spreadsheet macro):

```
Function POR(Win, Loss, Pct, Start, Success, Failure)

' error checking
TheError = 1
If Success >= Start And Start >= Failure Then TheError = 0

' convert data into "coin-flip" approximations
Expectation = (Win * Pct) - (Loss * (1 - Pct))
StdDev = (((Pct * (Win * Win)) + ((1 - Pct) * (Loss * Loss))) ^ 0.5)
P = 0.5 + (Expectation / (2 * StdDev))
Q = 1 - P

' find units of capital until success or failure
Account = (Start - Failure) / StdDev
FinAccount = (Success - Failure) / StdDev

' apply formula (we must do an averaging if P=0.5)
If P <> 0.5 Then
POR = (1 / (1 - ((Q / P) ^ FinAccount))) * (1 - ((Q / P) ^ Account))

Else
r1 = 0.50001 / 0.49999
r2 = 0.49999 / 0.50001
por1 = (1 / (1 - (r1 ^ FinAccount))) * (1 - (r1 ^ Account))
por2 = (1 / (1 - (r2 ^ FinAccount))) * (1 - (r2 ^ Account))
POR = (por1 + por2) / 2

End If

If TheError = 0 Then
POR = 1 - POR
Else
POR = "Error!"
End If

End Function
```

(where "Win" = avg. win, "Loss" = avg. loss, "Pct" = winning percent, "Start" = initial account balance, "Success" = amount that is your goal, "Failure" = amount remaining in account that is considered to be a failure.)

When your account is reduced to $200, you bet only one lot. The figures that get plugged into the ROR formula are derived from the statistics that are in the Figure 3 spreadsheet. So your ROR is:

Win: $39 (388-pip average x 0.10 (1 lot))
Loss: $13 (131-pip average x 0.10 (1 lot))
Pct: 67%
Start: $200
Success: $1,000,000
Failure: $0

Plugged into the ROR formula, these statistics produce an ROR of 0.000055, notably less than 0.01 (1%).

—W.D.

		$100.00		$100.00		$100.00
1	450	$289.00	0	$100	-100	$60.00
2	0	$280.00	600	$340.00	0	$60.00
3	300	$616.00	300	$748.00	0	$60.00
4	-120	$320.32	700	$2,842.40	250	$120.00
5	100	$448.45	-150	$1,136.96	150	$192.00
6	100	$627.83	0	$1,136.96	150	$307.20
7	-150	$439.49	700	$4,320.45	75	$399.36
8	200	$791.08	0	$4,320.45	600	$1,357.82
9	600	$2,689.68	125	$6,480.67	850	$5,974.43
10	0	$2,689.68	0	$6,480.67	-200	$3,584.76
11	200	$4,841.42	0	$6,480.67	-250	$1,786.00
12	300	$10,651.13	-200	$1,296.13	0	$1,786.00
13	0	$10,651.13	600	$4,406.86	-200	$1,071.60
14	-100	$6,390.68	300	$9,695.09	900	$4,929.36
15	175	$10,864.15	0	$9,695.09	0	$4,929.36
16	225	$20,641.89	350	$23,268.20	0	$4,929.36
17	150	$33,072.02	-100	$13,960.92	-125	$2,464.68
18	0	$33,027.02	-100	$8,376.55	-100	$1,478.81
19	-60	$25,100.53	800	$35,181.53	250	$2,957.62
20	-120	$13,052.28	500	$105,544.58	0	$2,957.62
21	400	$33,935.92	0	$105,544.58	-150	$1,626.70
22	500	$101,807.76	-100	$63,326.75	0	$1,626.70
23	0	$101,807.76	700	$240,641.63	0	$1,626.70
24	700	$386,869.50	-125	$120,320.82	150	$2,602.72
25	400	$1,005,860.71	-120	$62,566.83	300	$5,725.98
26	450	$2,816,409.99	0	$62,566.83	0	$5,725.98
27	400	$7,322,665.97	100	$87,593.56	0	$5,725.98
28	400	$19,038,931.51	150	$140,149.69	0	$5,725.98
29	-100	$11,423,358.91	-100	$84,089,81	350	$13,742.36
30	0	$11,423,358.91	0	$84,089,81	450	$38,478.61

Win	18	Win	13	Win	12
Loss	6	Loss	8	Loss	7
Avg win	336	Avg win	455.76	Avg win	372.91
Avg loss	108	Avg loss	124.37	Avg loss	160.71
Win %	75%	Win %	62%	Win%	63%
R/R ratio	3.11 - 1	R/R ratio	3.66 - 1	R/R ratio	2.32 - 1
159 Trading days					

FIGURE 3: SYSTEM TEST RESULTS. The HSD and bet/position sizing algorithm test results show that the forex gambit is capable of achieving very good profits and, in one case, massive profits.