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WHAT INVESTORS CAN LEARN FROM SOCCER PENALTY KICKS

FINANCIAL SERVICES GUIDE

Relatively lackluster returns so far this year have many investors wondering whether a market correction may be just around the corner. How lofty stock valuations, geopolitical tension, or higher interest rates will impact markets is a question that has captivated investors around the world.

If you're a soccer fan, however, it's hard not to be captivated by something else entirely: the FIFA World Cup.

Played every four years, the World Cup is a month-long soccer tournament in which national teams from 32 countries vie for the World Cup trophy. Reigning champion Germany won the last World Cup on a stunning goal in extra time, beating Argentina just minutes before the teams would have gone to a penalty shoot-out.

NO TIME TO REACT

The World Cup has been decided by penalty kicks just twice. The first time was on U.S. soil in 1994 when Italy missed the final penalty kick to lose to Brazil 3–2.

When a penalty kick is taken, the ball is placed 36 feet from the goal and a player attempts to kick the ball into the goal past the opposing goalkeeper. The ball covers the short distance so quickly that the goalie has virtually no time to react once the ball is kicked.

HOW DOES THIS RELATE TO INVESTING?

Like an investor, a goalkeeper is forced to make a decision in advance about an uncertain future event (which way the ball will be kicked). In anticipating how best to prevent a goal from being scored, the goalie is forced to choose whether to dive left, dive right, or stay centered in the middle of the goal.

DO LESS, ACHIEVE MORE

There is statistical evidence to suggest which way the goalkeeper should dive to have the best chance of saving a goal.

In 2007, a group of researchers analyzed nearly 300 penalties taken in men's professional soccer matches around the world. The study's authors categorized the actions of

both the goalies (jump left, jump right, or stay centered) and the kickers (kick left, kick right, kick center).

If the goalie guesses correctly, the odds of saving the kick increase significantly. If the goalie jumps the wrong way, there is no chance of a save (unless the penalty taker misses the goal).

As it turns out, the odds of a goalie stopping a penalty kick are extremely low: over 85% of the kicks analyzed resulted in goals. A goalie's chances of stopping a penalty kick were:

- ▶ 14 percent if he jumped left
- ▶ 13 percent if he jumped right
- ▶ 33 percent if he stayed centered

For the best chance of making a save, therefore, the goalie should stay in the center of the goal and not jump to either side. Yet, the researchers were surprised by the goalkeepers' actions:

- ▶ 49 percent jumped left
- ▶ 44 percent jumped right
- ▶ 6 percent stayed centered

WHY IT'S HARD TO "DO NOTHING"

Clearly, goalies have what is called an action bias. They believe jumping one direction or the other will be advantageous, yet the evidence points to the contrary. Why don't more goalies follow the evidence and stay centered rather than guessing which way to jump each time?

The researchers hypothesized that emotions play a big role. If scored upon, the goalie might feel better (and so might the fans, coaches, and team owner) about having allowed the goal if he'd taken a dramatic action in jumping one direction or another.

In other words, the goalkeeper's self-confidence and job prospects might be improved by "doing something."

Investors face similar decisions: No one knows which way the market will "kick the ball" tomorrow, next month, or next year, but each day we're faced with the decision of how



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best to invest our life's savings.

STAYING CENTERED ISN'T EASY

It can be tempting to listen to fund managers and forecasters pontificating as to the future direction of the market. Often overlooked is the fact that these experts are typically hailed as geniuses because they guessed right once—that improbable penalty kick save.

Just as the soccer researchers concluded, however, investors who jump around reduce their returns, not increase them. But is this time different?

Consider an investor who decided to invest \$1 million in U.S. stocks in December 2007, on the eve of global financial crisis. Keep in mind, Bear Stearns and Lehman Brothers would soon collapse and, in 2008, U.S. stocks would record their worst year since 1931.

Despite making what would seem an extremely ill-timed decision to buy stocks, that \$1 million would be worth more than \$2.3 million today. In other words, even after allowing the first couple of proverbial penalty kicks to get past him, that investor would have earned a very respectable 8.5 percent per year.

THE TAKEAWAY?

Good advice for soccer goalies is also good for investors. Stay centered and stick to the plan.