



Wiley Trading

EXPLOITING  
MULTIPLE TIME FRAMES  
IN ZERO SUM MARKETS

# TIME COMPRESSION TRADING

JASON ALAN  
JANKOVSKY

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*Exploiting Multiple Time  
Frames in Zero-Sum Markets*

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WILEY

John Wiley & Sons, Inc.

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.  
Published simultaneously in Canada.

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### ***Library of Congress Cataloging-in-Publication Data***

Jankovsky, Jason Alan, 1961-

Time compression trading : exploiting multiple time frames in zero sum markets / Jason Alan Jankovsky.

p. cm. – (Wiley trading series; 460)

Includes index.

ISBN 978-0-470-56494-3; ISBN 978-0-470-89248-0 (ebk);

ISBN 978-0-470-89249-7 (ebk); ISBN 978-0-470-89250-3 (ebk)

1. Investment analysis—Psychological aspects. 2. Speculation—Psychological aspects. 3. Competition. 4. Time perspective. I. Title.

HG4529.J36 2010

332.6401'9—dc22

2010014482

Printed in the United States of America.

10 9 8 7 6 5 4 3 2 1

# Preface

**I**n my second book, *The Art of the Trade* (John Wiley & Sons, 2008), I tell the story of my experience trading crude oil during the first Persian Gulf War. Because the book was a narrative of my trader development, it wasn't necessary to go into the unique details that led me to vastly rethink my understanding of the markets except to discuss the end result. The end result was that I finally got the picture of what trading is really all about. The moment-to-moment experience and what went through my mind as this awakening transpired would be a bit lengthy to include here, but I want you to see the crux of the process. That process developed into the theory of time compression.

Time compression is all around us and is a direct result of how we see the world and how we see our place inside of it. It is the inevitable development of our method of making actions. In the coming chapters, I break what I feel are the most basic parts of the theory into pieces so that you can begin to understand something that is not normally part of your regular stream of trading thought.

Part of what you have to do is refocus your mind *away* from seeing the markets as a *place* where something happens into a *process* that is happening. The markets are not a place in the regular sense that they are "in" Chicago, for example, but a process *that is happening* in Chicago. If we pick just one market to explain, most traders don't really understand that when the price of corn changes *here* (in Chicago), it changes the entire world's view of what grain might cost moving forward, which affects the entire worldview of the price of food moving forward, which changes the entire worldview on something else moving forward until all our heads are spinning trying to answer the questions *What does this mean, and what do I do to profit?* The market is alive and functioning

as a *process* that involves a very complex set of group dynamics. What happens *here* in Chicago is not the market “in Chicago”; it is the process of thought/actions playing out in the mind of everyone participating everywhere in the world. What creates time compression is the process itself playing out while all the participants *watch* Chicago.

When the answer to the questions *What does this mean, and what do I do to profit?* becomes an urge to take action from *anywhere*, you get a new traded price. When traders answer that question for themselves, the answer becomes an order to buy or sell—which becomes the *process* of the market, which makes prices move. How does that urge to take action play out as prices are moving? Where does that urge to action come from?

In my crude oil experience, I was not in control of my place in this process any more than most traders are in control of *their* place in the process. Most traders urge to action is *reactionary* based mostly on trying to answer the questions *What does this mean, and what do I do to profit?* In the case of time compression, the “taking action” part is one step further removed into a place where traders have *no choice in the matter*. For most traders, their urge to action is tied to how prices move. Because they can’t control price action either for themselves or against themselves, it follows that they usually decide to do something based largely on what they think prices mean to them personally, not what the *process* is showing. That means they feel a sense of powerlessness or that trading is a form of gambling (which is patently untrue). In effect, most traders preordain how they will move forward due to how they see the markets and their own place within them, not because they understand the underlying process of the market. When they have no choice in the matter, the process is acute and the end result is chaos to the equity. But when this chaos happens, *somebody was on the right side*. How did that particular trader get there? Was it just “luck”?

Once I understood that things were not what I thought they were and neither was I, I could form a better way of looking at price action and what it most likely meant moving forward. I could better control my actions to participate because I better understood how the game is actually played and how best to play it. I compare traditional technical analysis (TA) to the theory of time compression in a way where traders can see that TA is *trying* to provide the same benefit that a complete understanding of time compression can give you. You can

think of TA as looking at a picture while time compression as being *in* the picture. Imagine looking at a picture of a famous model and then comparing that to actually being on a date with him or her. I think you would see a vast difference in the two experiences. In other words, understanding how time becomes compressed will *complete* the understanding that TA *begins* to give you. Time compression gives you a sharper edge to begin with, thereby helping you use your tools better, which gives the benefit we are all looking for: a reasonable answer to the question *How do you know when a market price is too high or too low?*

To outline and define the material for you, I make an assumption. I assume most traders have absolutely no idea what a *zero-sum market* is really all about or how it functions. When I do speaking engagements or teach my psychology of trading course, I always ask if anyone participating has *never* heard the term “zero-sum market.” There are always a few hands raised from traders who have never heard the term. Some of these traders have been trading for several years yet have no idea that they are trading in a zero-sum market. From my point of view, that is like trying to build a house without knowing how to read a blueprint or swing a hammer.

In Part I: The Uniqueness of Zero-Sum Markets, I go into some detail about what a zero-sum market really is and why those rules of engagement differ from other kinds of activity. The traders themselves are part of creating the environment of a zero-sum market, and their choices create the price action everyone is watching. Other people’s choices create the price action *you* are trying to exploit. I look at how the market is created by the actions of the participants and how the participants are making their choices. I want to show you how this process plays out in most traders and how that creates the *real* structure of the market, not the intended or expected structure. Traders function as individuals first, but the *exact* same process is going on *inside* every individual market participant; therefore, the appearance of the market is identical to any one person. This is why crowds behave in the same predictable way. This is why all losers behave in the same way and express similar responses to how their equity changes. Once we know this to be the case, it is vastly easier to see where a change in underlying market structure is likely to happen, providing a place to buy low or sell high.

In Part II: The Theory of Time Compression, I begin breaking down the big picture into smaller pieces that might be deduced from

traded prices and price action in the markets. It is important to note that a solid grasp of zero-sum markets is essential in order for you to understand the crowd thinking that is the process of the markets and the creator of time compression. The theory itself is not complex and is more of a social engineering idea, but because we are discussing the markets as the place where this process *happens*, you need a firm grasp on what makes the zero-sum marketplace unique and different from other things that create time compression. Time compression in the markets creates a flow of money *to* someone and a flow of money *away* from someone. This changes the dynamic of the markets moving forward because the market losers are *different* from the winners after the event unfolds.

In Part III: Exploiting Multiple Time Frames, we begin seeing how time compression is disclosed in the market by using multiple time frames. Most traders are unaware that competing time frames are why the markets suffer big moves unexpectedly or why trends develop the way they do. After you can see how larger numbers of people all coming to the same conclusion will tip the balance of the order flow through the markets, you can begin to try to exploit time compression to answer that big question: *Is the market price too high or too low?*

Part IV: The Five Basic Market Structures includes a few examples of studies I personally have made using the theory and how you can better understand what to look for. The idea with the illustrations is to get a real-time feel for what is happening and how that likely will create a tipping point. The important thing is to see the theory in context so that you can try to develop a better edge than just chance. It is my view that when you can get an edge that is better than chance, you can exploit the market participant with absolute certainty because no one individual you are trading against has an edge better than you. Your trade results can approach 100 percent winners under certain conditions.

Each chapter ends with a brief note called "The Trader's Life." In these sections, I include a few thoughts from my personal trading that I think will help you better understand how the various parts of this book interrelate with each other and how to see the whole concept in the context of your daily trading. I believe that trading is really an art form that requires a deeper focus than just getting information and applying it. Traders need to see that successful speculation involves

a lot more than simply analyzing markets or applying a trading system. Successful speculation involves an understanding of how people behave under certain conditions. Sometimes, we can see that in the price movement; sometimes, we have to discern that from other sources. Regardless, successful trading is more than just charts and statistics.

So let's get started on the theory of time compression.



# Acknowledgments

**I** want to say thank you to all those friends and family members who supported me after I missed all those pool parties, barbecues, and get-togethers when my weekends filled up with writing this book. Special thanks to my editor, Kevin Commings, for keeping me on track with the manuscript, thanks to the staff at Wiley for providing the technical help to complete a working manuscript on time, and thank you to all my subscribers who encouraged me to keep at it when it seemed like a big bite to chew.

# Introduction

**T**his is my third publication for John Wiley & Sons, and I thought it might be important for the reader to know that this has been by far the most challenging for me to write. The content is more advanced, and it will likely take more than one read to really grasp the material. Sometimes, writing about something you know is harder because it is personal enough that you can't quite say it as you feel it. In my view, traders who have a bit more experience with the markets might intuitively sense what I am getting at with the concept of time compression, but that term has never been used by authors working in the field of trading education or analysis. In my personal trading, I have faced every single situation ever faced by any reader, and I can say with complete confidence that I understand this idea completely and know how to use it. The issue was how to communicate it to *any reader*. I intentionally tried to keep things simple, and I hope that the reader doesn't feel like I have left anything out.

My goal was to shed new perspective on what we are all trying to do every day. Every trader is attempting to find a way to buy low and sell high often enough to make a net gain on his or her equity regularly; this goes without saying. In this material, I purposely avoided discussing things that every trader uses every day, such as money management, technical analysis, pyramiding, or cutting losses, for example. My goal was to narrow my focus into a reasonable answer to the problem we as traders face every day.

I see our problem as very basic: *How do we know when a market price is too high or too low?*

Because there are so many incredibly varied methods of trying to answer that question, it should be obvious that it is not an easy question to answer. Almost all methods of analysis are trying to pinpoint someplace very close to the actual turn in the market to create the best place for *you* to put yourself at risk. This is common

for all models, systems, or technical analyses, no matter what kind of traders people are or what time frame they operate under. All traders out there are trying to find the best place where the market will move higher—and therefore they want to be long—or move lower—thereby placing a short. Our goal is to use *something* to help us answer the question so that the time we invest in the market ends with a profit in our accounts. This is true no matter what you trade or your time horizon. What is that something we are looking for?

We as traders tend to invest a lot of time and money trying to find this unique *something* that we have enough confidence in to place ourselves at risk. We all know that almost all of these approaches rarely have better than about a 52 percent cumulative winning success as a percentage of total trades attempted. Many approaches have *less* than a 45 percent winning trade ratio but in fact are winning systems because of better money and trade management—which is a separate issue. In reality (and serious mathematicians can verify this), these ratios are mathematically *no better than chance*. In most cases, they are *less* than chance. In other words, flipping a coin will give you as good or better odds at a winning trade in most cases. In fact, if you flipped a coin every day at the same time and went long the market when the flip was heads or short when the flip was tails, most likely you could get a lead on the market around 52 percent of the time. What you do with that lead is another matter, but that approach to trading could be considered a viable system, even if people thought you insane for using it.

That is a frightening proposition given the huge amount of money invested year after year in system development, new technical analysis concepts, education, training, and computer-assisted trading (robots or “black boxes”). If the money spent in this area was somehow used just for improving the roads in this country, we probably would have a domestic autobahn eight lanes wide across the entire United States.

Even the most rudimentary or outdated approaches will have a certain percentage of winning trades during a reasonable sample set—say, 100 trades. But if you decided just to throw your arms up into the air, wash your hands of the whole silly “analysis” argument, and flip a coin every day, you probably could outperform most systems to begin with if your money management was sound. In fact, many professional managers do something very close to that by using a very simple system in the first place. They focus their approach

on holding winners and cutting losers according to a very strict set of money management rules. They win not because they have identified the best place to buy/sell but because they hold winners and bail on the losers. In effect, the systemized approach is immaterial and likely not even needed. These traders just hope the market goes a long way when they are on the right side, and they are willing to wait for that.

Why doesn't every trader just go with chance and focus on money management?

I think the answer to that question opens the door to the entire issue of trader psychology. Analysis holds an appeal for most people because we all like the challenge of "figuring this out." Some believe that everything can be analyzed, so naturally that includes the markets. I'm sure a few just don't want to accept that they have no idea how trading works so they need a crutch of some kind. We as humans can instinctively know when an opportunity is right in front of us and it happens enough that we believe we can quantify that into a systemized method. A few assumptions made during the process of reaching a conclusion work against this hypothesis, some of which I go into later, but for the most part, people can learn to recognize when something is "on sale" and when it is "overpriced." Therefore, we try to make a reasonable approach out of that kind of thinking. Often our gut will tell us it is time to do something, and the forward price action plays out that hunch. Is intuition a legitimate form of analysis? How do you know the difference between a gut intuition and a gambler's ambition? Suppose we could quantify that mathematically? At this point, in an attempt to answer these questions, the computers are fired up and the quants go wild with calculus and strange theories that only they understand in an attempt to quantify that difficult premise; that's called quantum financial theory and behavioral finance. If you can't sleep at night, I recommend reading up on those theories.

When I talk to system developers, analysts, or other proponents of technical analysis, I always ask: "How could Jesse Livermore make \$100 million in one day back when \$100 million was a *lot* of money and he didn't even own a telephone?" Stop and think about this: Most of the great trading fortunes were made *without* any of today's commonly used methods of forecasting and *before* computers were ever invented. What were those traders thinking? Better yet, what were those traders doing?

In my opinion, this problem of market analysis isn't bad, just confused. I think the reason why most systems/analysis is just a rehash

of what has been developed before and doesn't work any better this time around is because we are not seeing the markets for what they really are. We do not really understand what the markets are made out of or how they actually function. We choose to look at the "numbers" for the most part, and when we focus on only one part of a multipart structure, our view of the whole structure is lopsided. That is why time compression is so important. It provides a clearer view of the multipart structure.

The fact is, the markets are made up of *people*, not *prices*. *The people create the prices*. If we study only the prices, and not the people who made them, we likely won't understand what the prices really represent moving forward. Unless we know who made that price and why, how can we then find a low price to buy or a high price to sell with any certainty?

I call my attempt to answer that question in this book the theory of time compression. I thought a fresh look at understanding market structure was what the question needed. I'm going to stay away from all the analysis arguments and ask you to focus on other things.

The best way to understand my argument is to set aside your current understanding of how to analyze a market and think along a new set of guidelines. As we get deeper into the material, I challenge some of the more conventional wisdom about finding winning trades. As your new understanding opens a different perspective for you, I hope that you continue to view the market as *people doing things*, not as *prices moving*. In the end, that is what the market really is.

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## PART I

# The Uniqueness of Zero-Sum Markets

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**C** S. Lewis is one of my favorite authors. In his book *Out of the Silent Planet* (the first part of his science fiction trilogy), Lewis tells the story of Dr. Ransom. Ransom studies languages and, through a series of events, is kidnapped by two unscrupulous former colleagues and taken in a spaceship to the planet Malacandra, which is in fact Mars. The story is told as a narrative by Dr. Ransom. One intriguing literary license taken by Lewis is how Ransom sets the stage for the narrative. Ransom says that it is impossible to communicate to the reader or even hope that the reader will remember the pervading sense of danger he felt on Malacandra. Part of what makes the story so interesting for me is putting myself in Ransom's place, knowing that he was scared out of his wits most of the time, even though he learned that inhabitants of the red planet were not only benevolent but wanted to see him return to his own world. He was literally in a whole other world, and he found that frightening. Ransom learns the language of this alien world and, in the process, finds that the universe is full of unexpected things that



make his own life much more complicated. I assume that was frightening for him too.

In my view, the issue of trading well is a study in self-awareness. Trading can be done only in the context of understanding how different zero-sum markets are and how we must change to exploit them. In this book, the reader will gain a more complete understanding of time compression and how it is disclosed using multiple time frames if he or she can remember that the concept is based on knowing what a zero-sum market is and how we must adapt to it.

Part I provides a complete look at what a zero-sum market is and the parts that make up the market. This part also looks into how we as human beings process information and take action. How we process information and take action is the cornerstone of what creates time compression. This is crucial to creating a winning trade approach. You need to focus on the bedrock issue that zero-sum markets are not what you think they are. Much like Ransom's experience on a strange new world, learning what "zero sum" really means and what we need to do to exploit zero-sum markets may be frightening. But in the end, that is the knowledge we need to succeed.