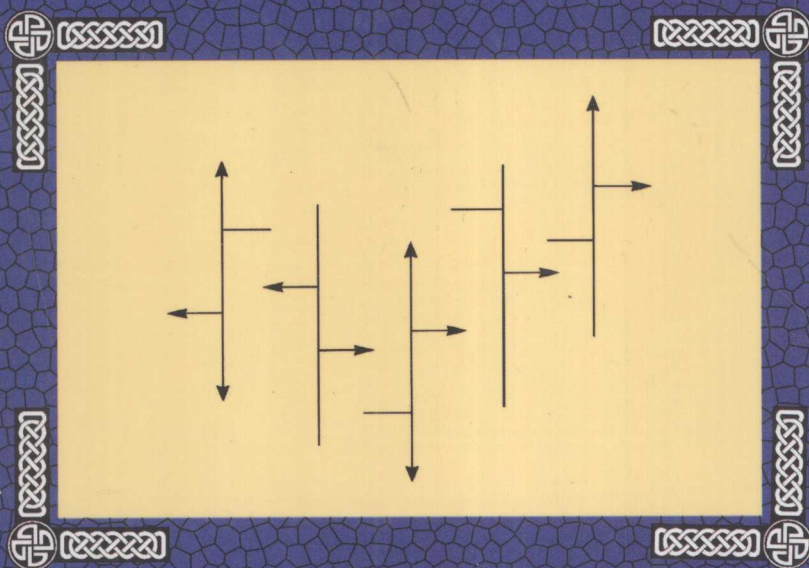


SHORT-TERM TRADING

WITH

PRICE PATTERNS



MICHAEL HARRIS



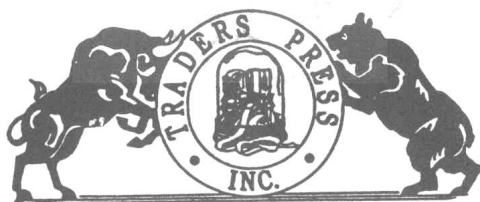
SHORT-TERM TRADING

WITH

PRICE PATTERNS

A systematic methodology for
the development, testing, and use of
short-term trading systems

MICHAEL HARRIS



*25th Anniversary
1975-2000*

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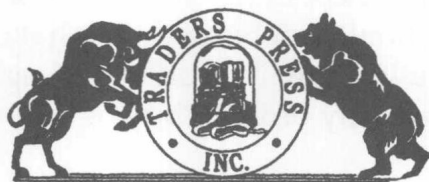
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To my parents, George and Dorothy.

- M.H.

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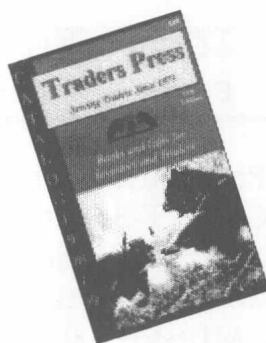
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Preface

Making money by trading futures is probably the most difficult task one can undertake. It requires devotion, discipline and continuous research. In order to achieve the objective of becoming a profitable trader, one has to make several sacrifices in his or her personal life and must go through the painful process of testing several ideas in actual trading. This may be a very costly endeavor, but is also one that can bring financial independence.

There are different ways to achieve success, whether through a mechanical trading system or a fundamental approach to the markets. What seems to count most at the end of the day is not so much the particular method used, but the methodology itself. Most traders have spent long hours in modeling and testing trading systems, but few have spent the time and effort to develop a specific methodology and trading style. This may sound a little abstract, but years of experience have shown that a trading methodology is as important as the trading system itself. Of course, implementation and execution of a trading methodology require knowledge and experience that few possess, as well as a discipline that even fewer exercise. Those very few who combine both are the long-term winners.

Writing a book requires a lot of effort, but it is a very important step in the author's life. It is a turning point, like reaching the end of a highway and looking for a new direction to take. It is also a motivation to turn to new ways and investigate new frontiers. That is the beauty of sharing past knowledge and experience with others.

M. H.

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Introduction

This book was written with two objectives in mind: to provide futures traders with specific trading systems, and to provide a methodology to employ these trading systems in systematic trading. Both of these elements working in synergy are required to win in futures trading. An effective trading system puts in place the prospect of profitable trading. In turn, a skilled trader uses a trading methodology to take advantage of this prospect in a way that is appropriate and is consistent with the requirements of the trading system in use. This harmonious cooperation of the trader/system combination will eventually lead to consistent long-term profits.

The reader will notice an absence of unnecessary illustrations of historical price charts. Only those absolutely necessary to explain the concepts presented have been included. Nowadays every trader has some means of looking at historical charts, including several daily publications and the Internet. There is no need to buy a book to do that! Furthermore, I avoid stating qualitative trading rules such as “the trend is your friend...” etc. Most of us have heard or shared many rules that must be followed in order to be a successful trader; these sayings are often of general context and are even contradictory at times. What are rarely heard or shown are specific methodologies and systems that make money in a consistent and systematic way.

The global financial system, an important part of which is the futures markets, is a very complex, dynamic process. Advances in technology have facilitated the rapid flow of funds between investment vehicles that can be located on opposite sides of the

globe. It seems difficult for even the most well-educated, well-trained human minds to predict the movement of capital in a way that will lead to systematic gains. Sudden reversals in the direction of market prices can make previous hard-earned gains disappear in a matter of hours, or even turn into devastating losses. Recouping the losses can be a difficult task.

The systems and methods shown in this book attempt to deal with the nature of the futures markets by adopting a short-term trading approach based on historical price patterns. These patterns can be easily programmed in the computer and monitored on a daily basis. Positions may be placed either on the close of the day that the pattern formation is completed or at the open of the next trading day. A profit target and a stop loss are placed immediately, as soon as the position is established. The average duration of a trade can vary from one to a few days, depending on the profit and loss objectives of the particular patterns employed in the trading system model.

This book is divided into three sections. Section One, entitled "Background," provides a review of basic concepts. In chapter 1 I describe the differences between the various time frames used in trading futures. In chapter 2 I review the trading methods and techniques employed by traders, and in chapter 3 I discuss the data requirements of trading. Those first three chapters also provide a rationale and justification for the selection of short-term trading as the trading style most suitable for systematic trading, which is further elaborated in chapter 4. In chapter 5 I present a comprehensive framework for modeling and simulating trading systems, a step-by-step procedure to be followed by the trading system developer. This framework increases the probability that the trading system models developed will behave the same way in real life as during the simulation procedure.

Finally, in chapter 6, I give a specific example of how to model, simulate and improve the performance of a trading system. These last two chapters of Section One provide the necessary background to develop consistently winning trading systems using the concepts presented in the remainder of the book.

Section Two, entitled “Trading With Short-term Price Patterns,” deals with the development of short-term trading system models based on historical price patterns. In chapter 7 I outline a procedure for price pattern searching based on a trial-and-error method. Then I present a methodology for developing short-term trading systems that are collections of short-term price patterns, and for using those trading systems to generate daily trading signals in a systematic way. In chapter 8 I classify short-term price patterns into different types, depending on their properties. Chapter 9 introduces the idea of automating the search for historical price patterns; in chapter 10 I present a general approach to short-term trading using an automated pattern search. Chapter 11 deals with money management techniques and focuses on the estimation of trading capital and risk. In Chapter 12 I discuss advanced ways of using short-term patterns by taking into consideration some special situations that often arise. Finally, in chapter 13 I introduce the p-Indicator, a short-term trading indicator based on historical price patterns—the first one of its kind.

Section Three is a library of specific price patterns, for several commodity futures, which have been found using the automatic pattern search method I have developed. I describe the chart formation, performance characteristics, and programming logic of each pattern listed, so it can be readily used in a trading system model. This is the first time ever that such a great number of short-term price patterns have been revealed in a single publication.

The methods and techniques presented in this book are the result of extensive research and development. The computer programs used to discover the short-term price patterns listed in Section Three have taken many years to develop, and substantial resources have been devoted to that effect. I certainly hope that the reader will be motivated by this work and will proceed to develop his or her own methods and techniques of trading, using the concepts presented here as a foundation. After all, trading is a personal endeavor, one that requires a combination of hard work and continuing effort. Let us keep this last comment in mind while turning the page to Section One.

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