Taylor & Francis
Online

Home ► All Journals ► Economics, Finance & Business ► Quantitative Finance ► List of Issues
► Volume 1, Issue 4 ► A real-time adaptive trading system usin ....

Miscellany

A real-time adaptive trading system using genetic programming

M.A.H. dempster & C.M. Jones

 Citations   Metrics   Reprints & Permissions   Read this article   Share

Abstract

Technical analysis indicators are widely used by traders in financial and commodity markets to predict future price levels and enhance trading profitability. We have previously shown a number of popular indicator-based trading rules to be loss-making when applied individually in a systematic manner. However, technical traders typically use combinations of a broad range of technical indicators. Moreover, successful traders tend to adapt to market conditions by 'dropping' trading rules as soon as they become loss-making or when more profitable rules are found. In this paper we try to emulate such traders by developing a trading system consisting of rules based on combinations of different indicators at different frequencies and lags. An initial portfolio of such rules is selected by a genetic algorithm applied to a number of indicators calculated on a set of US Dollar/British Pound spot foreign exchange tick data from 1994 to 1997 aggregated to various intraday frequencies. The genetic algorithm is subsequently used at regular intervals on out-of-sample data to provide new rules and a feedback system

is utilized to rebalance the rule portfolio, thus creating two levels of adaptivity. Despite the individual indicators being generally loss-making over the data period, the best rule found by the developed system is found to be modestly, but significantly, profitable in the presence of realistic transaction costs.

Purchase options *

Save for later

PDF download + Online access

- 48 hours access to article PDF & online version
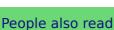- Article PDF can be downloaded
- Article PDF can be printed

EUR 48.00

🛒 Add to cart

Issue Purchase

- 30 days online access to complete issue
- Article PDFs can be downloaded
- Article PDFs can be printed

EUR 525.00

🛒 Add to cart

* Local tax will be added as applicable

Related Research ⓘ

Information for

Authors

R&D professionals

Editors

Librarians

Societies

Opportunities

Reprints and e-prints

Advertising solutions

Accelerated publication

Corporate access solutions

Open access

Overview

Open journals

Open Select

Dove Medical Press

F1000Research

Help and information

Help and contact

Newsroom

All journals

Books

Keep up to date

Register to receive personalised research and resources by email

✉ Sign me up