



Applied Series

by Mark Meldrum, Ph.D

Options | Futures/FOPs | Forex | Macro/Top-Down | Bottom-Up Analysis
Sector Studies | Portfolio Construction/Management

About the Applied Series:

This series, in development¹, bridges the gap between classroom/curriculum finance knowledge and the real world. Finance textbooks and program curriculum, especially for CFA® Levels 1 - 3, are great sources of ‘*know what*’ and ‘*know why*’, but they leave ‘*know how*’ to the real world, primarily through your eventual employer.

But what if employers want experience and are looking for prospects that already ‘*know how*’? What if you want to pursue a more entrepreneurial career path instead?

The Applied Series is process-oriented towards practical applications of classroom and/or program curriculum in the finance domain.

* Pricing for the [Applied Series Bundle](#) **\$320 USD**

¹. The Applied Series courses are available for subscription at a reduced rate while they are in development. There is no expiration date and all content, as it is developed, is made available at no extra cost. The price will increase over time for new subscribers as the content progresses. Price increases to **\$470 USD** Fall 2023.

CFA Institute allows its members the ability to self-determine and self-report professional learning (PL) credits earned from external sources. CFA Institute members are encouraged to self-document such credits in their [online PL tracker](#).



Self-paced learning

Progress at your own pace with your own sequence of topics

Accessibility

Online streaming for 24/7 fixed or mobile access

Collaboration

Each video has its own comment section, ask a question or start a conversation with other subscribers

Problem Solving

Online live Q&A sessions

Risk management principles are weaved throughout the entire series. Success in markets is about managing risk, not return. Manage risk and return will take care of itself.



Content development period:

August to February (each year)

New Applied Series content added/existing content upgraded

March to July (each year)

Dr. Meldrum contributes to both CFA and FRM content

Applied Series

Portfolio Construction/Management

Extended Applied Asset Management Seminar



Begins August 2023:

This extended series, included in the Applied Series, is intended to introduce you to a variety of trades/positions across a number of asset classes using a number of different securities (equities, forex, options, futures). The series begins with setting up your system for market monitoring and scanning (screens for rates, treasuries, key forex rates, commodities, equities, etc) along with a statement of your investment philosophy and the rules by which you will manage your positions/portfolio.

Each week, a new trade setup will be introduced that you can replicate in your paper portfolio. It is important to experience how to trade a security/basket of securities, how moves in the underlying affect your portfolio value, volatility, and potential margin requirements.

A key exercise will involve taking some trades with a high degree of loss, then using risk management techniques to nullify the loss.

The best method to develop passion for finance and markets is to just jump right in. However, that can be dangerous with real money. This module allows you to paper trade your way to experience - the cheapest tuition of life. Make mistakes here, learn how to salvage a loss here, execute simple to complex trades here.

Examples of trades that will be explored:

- Sector/factor tilts
- Carry trades
- Income factories
- Curve trades
- Duration trades/positions
- Futures curve trades
- Hedging forex and active positions
- Portfolio risk management
 - Synthetic cash
 - Hedging
 - Deleveraging
 - Loss minimization/nullification

There are a number of sources through which you can manage a paper portfolio. I will be demonstrating system setup, trade execution, and portfolio risk management using Interactive Brokers - specifically Trader Workstation. You are free to use whatever system you have access to, you need not use IB.

Beginning August 2024 - Financial Modelling using a real-world, publicly-traded company

Module 1

Options



Completed

Topics covered:

1

Basic Strategies

2

Income Strategies

3

Directional Strategies

4

Volatility Strategies

5

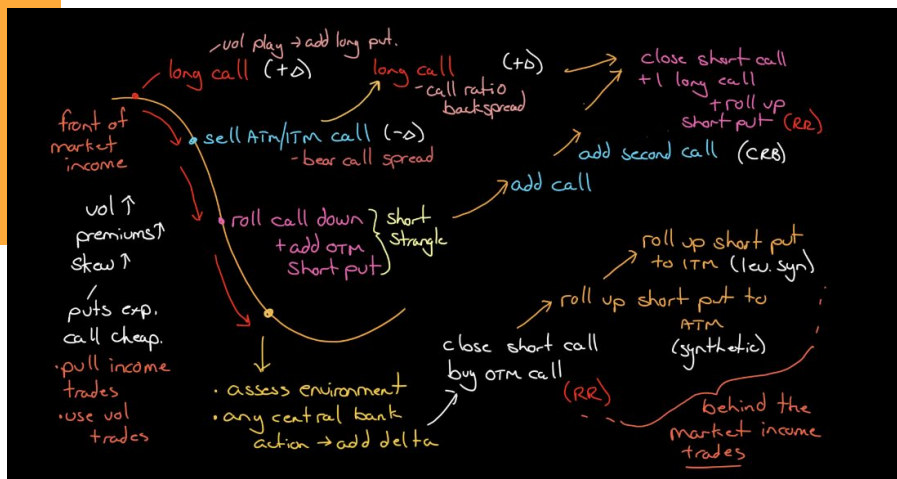
Option Portfolio Risk Management

Key Concepts

- Implied volatility vs historical volatility
- Volatility skew, level, crush, and term structure
- Positive/negative convexity
- Theta decay
- Gamma risk
- Dollar-Delta-Beta and Delta Neutrality
- Rolling options up/down/forward

Selected Outcomes

- Create an income factory
- Minimize or avoid a loss
- Sell higher/buy lower than market price
- Replicate a stock to avoid forex exposure
- Avoid foreign dividend withholding taxes
- Convert all dividends into capital gains
- Trade volatility as an asset class
- Create the same payoff as the underlying with far less capital
- Identify proper targets for each type of strategy



Current viewing time: 26h 41m

*Also available as a [standalone module](#)
(content upgrade coming Fall 2023)

\$220 USD

Applied Options

Module 2

Futures

...and options on futures



Completed



In development (Winter 2023/2024)

1

2

3

4

5

6

7

8

9

Topics covered:

Equity

U.S. Treasuries

Energy Commodities

Agriculture Commodities

Livestock

Short-term Interest Rates

Precious Metals

Industrial Metals

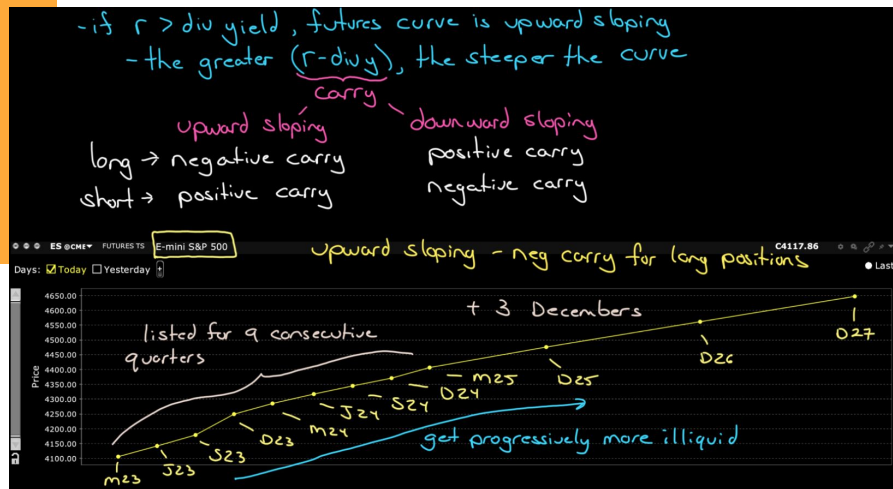
Currencies

Key Concepts

- Contango and backwardation
- Positive versus negative carry
- Intention, notice, and delivery periods
- Rolling futures and pace of the roll
- Mark-to-market and cash settlement
- Commitment of traders (COT)

Selected Outcomes

- Generate positive carry, avoid or nullify negative carry
- Replicate beta or duration with less capital
- Equitize cash/move to cash - all without buying or selling stock
- Trade forex at a lower interest cost than spot
- Reduce portfolio risk with uncorrelated positions
- Create pure beta or pure alpha portfolios
- Manage risk outside regular exchange hours



Current viewing time: 3h 48m

*Only available within the [Applied Series Bundle](#) \$320 USD
 (module in progress - additional content coming Fall 2023)

Applied Futures/FOPs

Sectors



Sector completed, sub-sectors added

Sector completed, sub-sectors pending

In development (Winter 2023)

1

2

3

4

5

6

7

8

9

10

11

Topics covered:

Consumer Discretionary

Consumer Staples

Financials

Materials

Real Estate

Healthcare

Energy

Information Technologies

Communication Services

Utilities

Industrials

Key Concepts

- Defensive versus cyclical
- Sector rotation
- GICS Classification
- Economic cycle/Credit cycle
- Economic drivers of sectors/industries/sub-industries



Selected Outcomes

- Match the sector(s) with the phase of the business cycle
- Create a 60/40 equity/bond proxy with equity-sector ETFs
- Remove a stock from an ETF, rebalance components of an ETF
- Identify single name targets in an overweight sector (top-down investing)
- Construct pairs trades - sector versus sector, sector versus market, ETF versus single name

Current viewing time: 9h 54m

*Only available within the [Applied Series Bundle](#) \$320 USD
(module in progress - additional content coming Fall 2023)

Sector Studies



Module 4

Top-Down



Completed

In development (Winter 2023/2024)

- 1
- 2
- 3
- 4
- 5
- 6

Topics covered:

Slowdown

Contraction

Recovery

Expansion

Rates and Spreads

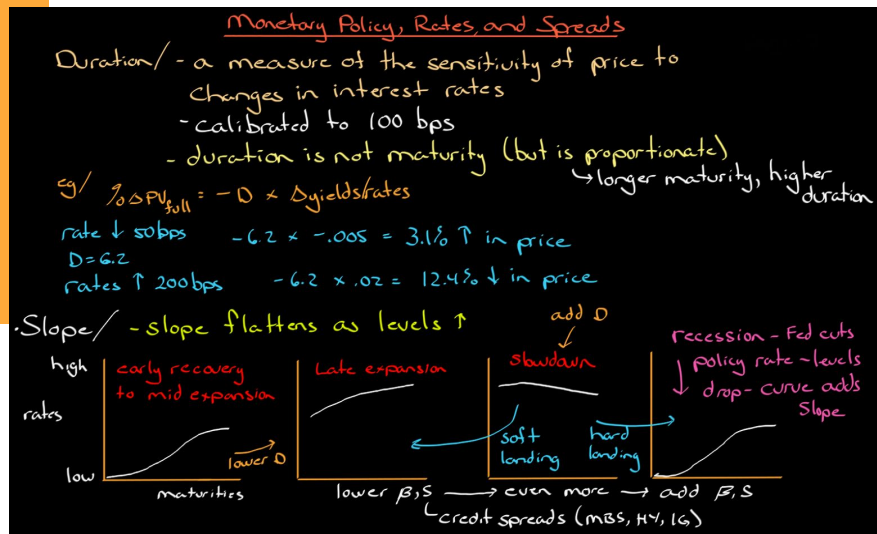
Factor Investing

Key Concepts

- Phases of the business cycle/credit cycle
- Yield curve slope/inversion (capital market versus money market inversions)
- Credit spreads - OAS, High yield, Investment grade
- Leading, Coincident, and Lagging indicators
- Factors - size, value, momentum, low vol., quality...

Selected Outcomes

- Trade a curve steepener/flattener
- Add/reduce duration depending on curve shape and economic indicators
- Match HY/IG exposure with small-cap/large-cap exposure
- Construct a factor portfolio
- Position your portfolio based on leading indicators
- Reduce/increase beta exposure without decreasing/increasing equity exposure
- Match exposure to commodities and USD based on phase of the business cycle



Current viewing time: 13h 00m

*Only available within the [Applied Series Bundle](#) \$320 USD
 (module in progress - additional content coming Fall 2023)

Top-Down Analysis

Others



Under continuing development



Scheduled for August - December 2024



Topics covered:

Applied Asset Management:

Forex

Technical Analysis

Applied Financial Analysis:

Financial Modelling

Bottom-up Analysis

1. Is the Applied Series for me?

The series will be a useful course for both the:

Professional Asset Manager/Analyst: If you are planning on a career in either financial analysis or asset management, then yes. The series will give you the equivalence of several years of know-how typically gained through experience.

Retail Investor: If you manage your own portfolio but lack ‘street’ experience, then yes. The series will help you make better choices related to asset allocation and risk management.

The series has three broad themes:

Applied Economic Analysis: Sector Studies and Top-Down Analysis

Applied Asset Management: Options, Futures/FOPs, Forex, Portfolio Construction/Management, Technical Analysis

Applied Financial Analysis: Bottom-up Analysis, Financial Modelling

2. Prerequisite tools; do I need an IB account or software (Excel)?

Since the focus is on application, to get the most out of the series, you should be active in markets. You do not necessarily need an Interactive Brokers account - any online brokerage will do. However, I will be showing trade setups and portfolio management techniques/output using the Interactive Brokers interface. Features and functionality may differ between brokers, as may access to asset classes all on one platform (IB has forex, futures, options, stocks, bonds - for every global exchange). Microsoft Excel will also be used.

3. Prerequisite knowledge (What do I need to know?)

The series does make the assumption that you are familiar with fundamental concepts in finance. These concepts are typically found in most introductory textbooks in the field. If you have no previous background in finance, the complete Level 1 CFA program from 2018 is made available to you free at markmeldrum.com - just click on Free Access.

Preferably you are using the Applied Series in conjunction with your CFA journey at any Level. The series was developed to be an applied version of the CFA concepts at all three levels. **It is not a replacement for the CFA program**, it is an augmentation.

4. Paper or real portfolio?

I strongly recommend paper portfolio trading until you are comfortable with the different asset classes and strategies. The extended portfolio construction/management seminar must use a paper portfolio since some of the trades will be done to intentionally create an unrealized loss.

5. Is the focus on tactical trading or long-term investing?

Both actually. In fact, a better classification would be between active versus passive investing. The Applied Series is quite active, which can be over short-periods of time (tactical - primarily risk management and income strategies) or over longer horizons (long-term buy and hold). It is intended to generate alpha, not just get exposure to beta.

6. Will the Applied Series offer a “practical Skills module” comparable to those offered by CFAI?

At the core, the Applied Series is the practical skills module for the CFA program. The series was developed to be an applied version of the CFA concepts at all three levels. However, there are two very specific application modules - one for asset management and one for financial analysis.

Asset Management: Beginning in August 2023, an extended Portfolio Construction/Management seminar will be introduced. This was introduced and presented on page 4 of this pdf.

Financial Analysis: Beginning in August 2024, an extended Financial Modelling seminar will be introduced using a real-world publicly-traded US company that will go beyond just the standard 3-statement model.

Ph.D (awarded by Case Western Reserve University)

- 9 years teaching at the University level

20+ years financial market experience

- Top-down macro specialist
- Producer of weekly Market Outlook series on [YouTube](#)

10 years teaching CFA Levels 1 to 3

- Founder and Lead Instructor at [markmeldrum.com](#)
- From 0 to #2 globally in 5 years by subscriber count
- Sold to CeriFi in April 2022 (a Leeds Private Equity portfolio company)

Dr. Mark Meldrum



I believe that teaching is a form of public service. All pricing should reflect the cost of delivery and not the value derived. That is why I have always believed in accessible pricing.

Useful Links & Resources

US Treasury for par rates: <https://home.treasury.gov/>

US Federal Reserve - FOMC: <https://www.federalreserve.gov/>

CME FedWatch Tool (free account available): <https://www.cmegroup.com/markets/interest-rates/cme-fedwatch-tool.html>

NY Fed SOMA account: <https://www.newyorkfed.org/markets/soma-holdings>

Money market funds flows: <https://www.ici.org/research/stats/mmf>

S&P 500 Bottom-up forward earnings estimates: <https://www.spglobal.com/spdji/en/documents/additional-material/sp-500-eps-est.xlsx>

CFTC Commitment of Traders: <https://www.cftc.gov/MarketReports/CommitmentsofTraders/index.htm>

Equity and Fixed-Income Statistics: <https://www.sifma.org/resources/archive/research/statistics/>

Mark Meldrum on YouTube: <https://www.youtube.com/@MarkMeldrum>

Princeton Bendheim Center for Finance on YouTube: <https://www.youtube.com/@princetonbendheimcenterfor761>

Talks at Goldman Sachs: <https://www.youtube.com/@GoldmanSachs/videos>

*I shall be telling this with a sigh
Somewhere ages and ages hence:
Two roads diverged in a wood, and I —
I took the one less traveled by,
And that has made all the difference.*

— Robert Frost