



Quartic

Curriculum changes to the
Chartered Financial Analyst (CFA[®]) Program
2020 updates from 2019

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CFA[®] Program 2020 vs 2019: overview

In brief:

- **Level I:** Lots of tiny updates, nothing huge
- **Level II:** A few major additions, but overall similar length
- **Level III:** The major revamp continues

Lots of updated examples and data across the board, hundreds of new questions at all levels



CFA[®] Program 2020 vs 2019: **Level I**

- Lots of tiny updates, nothing huge
- **Dropped reading:**
 - *Quants*: Discounted Cash Flow Applications (2019 R7)
- **Additions:**
 - *None!*
- **Updates:**
 - *Ethics, Quants, Fixed Income, Derivs*: Minor updates
 - *FRA*: Updates re new accounting standards on revenues and leases
 - *Portfolio Management*: Lots of small changes
 - Slight reorganisation of Study Sessions



CFA[®] Program 2020 vs 2019: **Level II**

- A few major additions, but overall similar length
- **Dropped readings:**
 - *Ethics*: Two of the tiny case studies (2019 R4/5)
 - *Quants*: Fintech in Investment Management (2019 R6)
 - *Corp Fin*: Corporate Performance etc, Corporate Governance (2019 R23/24)
 - *Derivs*: Derivative Strategies (2019 R41)
 - *Portfolio*: The PM Process and IPS, Algorithmic Trading & HFT (2019 R46/51)
- **Additions:**
 - *Quants*: R7 Machine Learning, R8 Big Data Projects (rest of Quants updated too)
 - *Corp Fin*: R22 Corporate Governance and ESG Considerations
 - *Portfolio*: R43 Exchange-Traded Funds, R48 Trading Costs and Electronic Markets
- **Updates:**
 - *Ethics*: R3 three new case studies (tiny)
 - *Econ*: R12 Regulations rewritten
 - *FRA*: R13 Intercorporate Investments largely rewritten



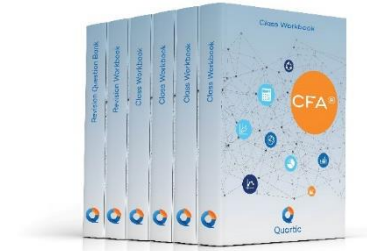
CFA[®] Program 2020 vs 2019: **Level III**

- The major revamp continues
- **Dropped readings:**
 - *12 readings removed*, including Overview of AM Industry, Cap Market Expectations, Equity Market Valuation, Alternative Invs, Individual & Institutional Portfolios, all four Risk Management readings, Execution of Portfolio Decisions, Evaluating Portfolio Performance
- **Additions:**
 - *14 readings added*, including: Application of Code & Standards, Cap Market Expectations (x 2), Options, Swaps/Forwards/Futures, Hedge Funds, Alternatives, Private Wealth Mgt, Institutional Investors, Trade Strategy, Portfolio Performance Evaluation, Investment Manager Selection, two new Case Studies (Institutional, Private Wealth)
- **Updates:**
 - *Asset Allocation*
 - *Asset Allocation with Real-World Constraints*
 - *Currency Management*



Quartic CFA[®] product update

- **Slides:** many refreshed readings, curriculum changes or not
- **Quartic Online videos:** busy preparing all updates to be completed in time for the start of your studies
- **Quizzes:** embedded into the videos of all three levels now
- **Range of delivery options:** full suite of classroom, live online, live recorded and pre-recorded sessions
- New **Quartic Q-Sheet:** see below
- **Prices:** many prices being reduced from 2019 prices
- **White-labelling:** would you like to run CFA classes?



New: Quartic Q-Sheet

Fintech in Investment Management

Big Data

- Structured vs unstructured
- 3 Vs: volume, velocity, variety

Artificial intelligence & machine learning

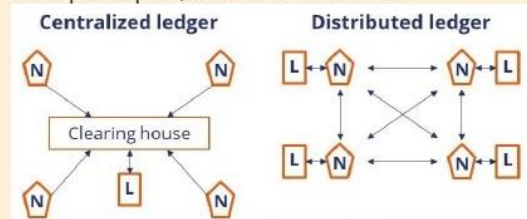
- ML: training vs validation data
- Supervised vs unsupervised
- Overfitting vs underfitting

Applications

- Text analytics/NLP, robo-advisory services, risk analysis, algo trading

Distributed ledger technology

Multiple copies, immutable records



Blockchain: hash codes link blocks



Equity Investments

Market Organization and Structure

Market types

1. OTC (over-the-counter) delivery, OTC

Security Market Indexes

Weighting	Calculation weighting	Stock split
Price	Share prices	Weighting ↓
Equal	Equal weights	No impact
Market cap	Shares in issue x price	No impact
Float-adjusted	Shares avail x price	No impact
Fundamental	Other e.g. BV, revenue, NI	No impact

Price return vs total return:

$$HPR_p = \frac{V_1 - V_0}{V_0} \quad HPR_T = \frac{V_1 - V_0 + Inc_1}{V_0}$$

Market Efficiency

Market efficiency: new info → rapid Δ prices

Efficient market hypothesis: It is impossible to outperform consistently using ... information

Three forms:

1. *Weak form:* past market data
2. *Semi-strong form:* also public data
3. *Strong form:* also private data

EMH anomalies

Time series: calendar, momentum/overreaction

Cross-sectional: size/value effect

Other: closed-end fund discount, earnings surprise, IPOs

Behavioral finance

Loss aversion, herding, overconfidence, representativeness, mental accounting, conservatism, narrow framing

Introduction to Asset-Backed Securities

Securitization: converting illiquid financial assets to tradable securities

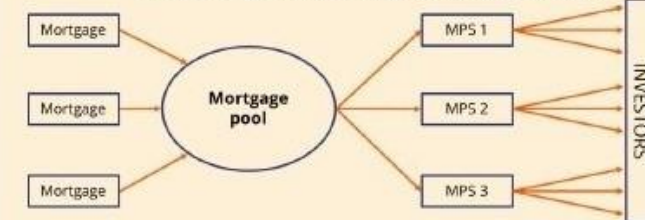


Residential mortgage loans

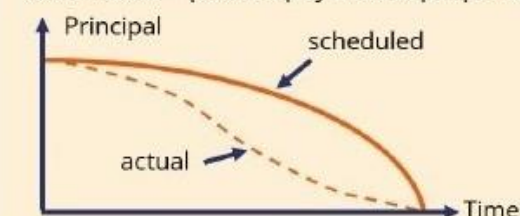
- Fixed rate vs ARM vs hybrid vs convertible
- Foreclosure: recourse vs non-recourse
- Repayments: amortization vs partial amort vs interest only; prepayment option

Residential MBS issuers

- Agencies (Fannie Mae, Freddie Mac, Ginnie Mae) vs non-agencies (banks)
- MPS (mortgage pass-through security):
 - WAC (gross) vs pass-through rate (net)
 - WAM (legal maturity) vs WAL (shorter)



Cash flows = princ repayments, prepmnts, interest



Thank you for watching!



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