

# Econ 104 final exam review - 2019

- **About the exam in general**

- Exam covers futures, the role that futures play in ETPs, investment strategies (including the long-term financial planning video), and real estate.
- Exam consists of a single online closed-book exam covering only Modules 7 and 8. It is ***not*** comprehensive.
- I am ***not giving*** a take-home component this year.
- The exam is given in class on the final day of class, Wednesday, December 11, 2019.
- The exams will be nearly identical in structure to the second mid-term exam that you have already taken. This exam will end with a matching segment like that exam. It will allow for the same amount of time (40 minutes, plus over-time for those who are entitled).
- This exam is worth 200 points, the same as the previous two exams, for a semester total of 600 points.
- Remember that this review was prepared *before* I made up the exam, so it may not fully indicate all areas of interest, although it will certainly indicate most of them. There will be a random selection from the topics covered here.

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- Important note: If you are taking this class pass/fail, you must earn enough points to be given a C- or better but, as the course outline also says, you must pass the final to be given a passing grade regardless of your score on the first two exams.
- Here are the rules:
  - ✓ The exam will be given to all students in Galileo McAlister and all students must remain in that room until completion of the exam. I have requested that the barrier between McAlister and Edwards be removed for the exam to give us more room.
  - ✓ This exam is a **closed-book exam** allowing no notes or books.
  - ✓ Your exam should be done on a laptop. Do not try to complete this exam with a phone.
  - ✓ Please try to use EduRoam or a reliable trusted connection. Do NOT USE CINE!
  - ✓ Calculators are allowed and even recommended for this exam, including phone and laptop calculators.
  - ✓ You are allowed to listen to music with headphones.
  - ✓ As always, special provisions to take the exam will be made for students who are granted extra time to take the exam and for students with disabilities. You will get instructive emails separately.

# About futures contracts (directly)

Futures are not likely to be part of your investment portfolio if you are simply a long-term retirement investor, and so are not a major investment category like stocks, bonds, ETPs, mutual funds, and real estate (or even options). However, futures are creeping into long-term conservative investment categories because of their growing importance in ETPs like USO, UNG, and various ETNs. Given that, we focus on three categories:

1. **Settlement:** absolutely everything about settlement, what it is, how it works and how it affects pricing at delivery. **There will be a settlement problem based upon an example like the oil settlement example.**
2. **Basics:** What you might really need to know about an elementary futures contract like oil or silver (e.g. size, delivery terms, etc.)?
3. **Chains:** Contango and backwardation, what are they and what do they represent (would ask only about contango)?
4. **Hedging:** why would a contango make an inflation hedge more difficult or impossible?

# More on futures and the relationship between futures contracts and delta ETPs ...

- **You are going to be asked an ETP design question!** Based upon Lec 10b, the Gold ETPs. Figure out how to design an unleveraged, leveraged, and inverse ETP. Go back to the slide show and make sure you understand Lec 10b Slides 2-4 **How a delta ETP can be collateralized ...**
- **You will not be asked a futures contract design question.**
- The general principles of leverage in futures, including “true” leverage versus maximum leverage.
- How inverse and leveraged ETPs use futures contracts and the relationship between cash and notional future values and the ETP NAV.
- Go back to appendix **A.2 Contangos and ...** to chapter 10b and to the ending slides about contangos . You *know* that you are going to get a major question about this.
- You will **not** be asked anything about the inserted topical story about the spectacular failure of that hedge fund writing options on natural gas futures, not anything about options on futures.

# About real estate

- **Real Estate**

- General, generic justification of real estate an investment, including the concept of *leverage* and obviously the *tax advantages*.
- The chapter discussion of the demographic issue (Fig 2) and how that explained torrid growth in the past but perhaps not so much in the future.
- For the online exam, especially matching, all types of loans that were identified in lecture or reading, their properties and pros and cons.
- The hazards or hidden traps of certain classes of ARMs, especially the variety that were used during the period 2004-2007 – *staircases, negative amortization, teaser rates*, all that.\*
- Current general qualifying criteria (loosely)
- Housing affordability and the **floating pyramid issue**.
- Understand the importance of these stats, especially as **red flags!**:
  - Day's inventory (shown as months in the slide)
  - Owner-equivalent rent
  - Housing starts
  - California first time affordability index (as it links to floating pyramid)
- **Not** required to know complex leverage formulas or formula for calculating monthly payment or max loan qualification.
- Not required to know the **DWBH** slides

\*

Likely to be represented in the matching terms section of the online exam.

# Investment strategy and the investment video

- Investment strategy
  - From the video, possibly a light, general questions about ...
    - What is needed to get to a \$million??
    - What role do investment fees play in this goal?
    - The distinction between the low to high-risk portfolios.
    - What is rebalancing and why is it needed .. perhaps an example?
- Summary pros and cons (light-weight online question)
  - What are the primary elements to remember about
    - Stocks
    - Bonds and Notes
    - Real Estate
    - Mutual funds and ETPs
    - Derivatives

**Good luck and I enjoyed teaching this class – I hope you learned something.**