

Economics 435

The Financial System

(10/26/21)

Instructor: Prof. Menzie Chinn
UW Madison
Fall 2021

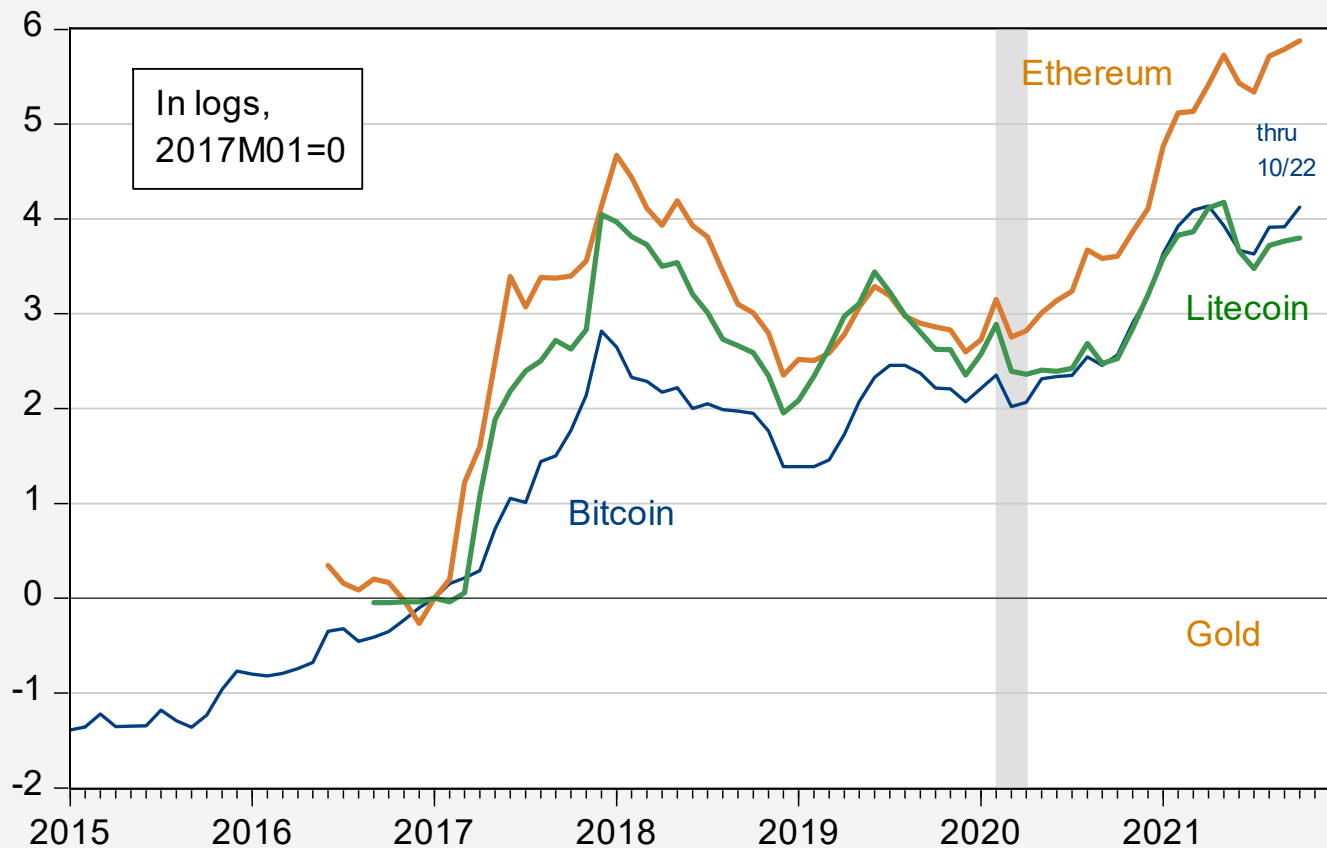
Cryptocurrencies

- Bitcoin, Ethereum, Litecoin, Dogecoin, etc.
- Are not “currencies”
- Three functions of money:
 - Unit of account
 - Means of payment
 - Store of value
- Most monies today are “fiat” money issued by governments – unlike cryptocurrencies
- Central Bank Digital Currencies (CBDC) would differ from cryptocurrencies

Cryptocurrencies

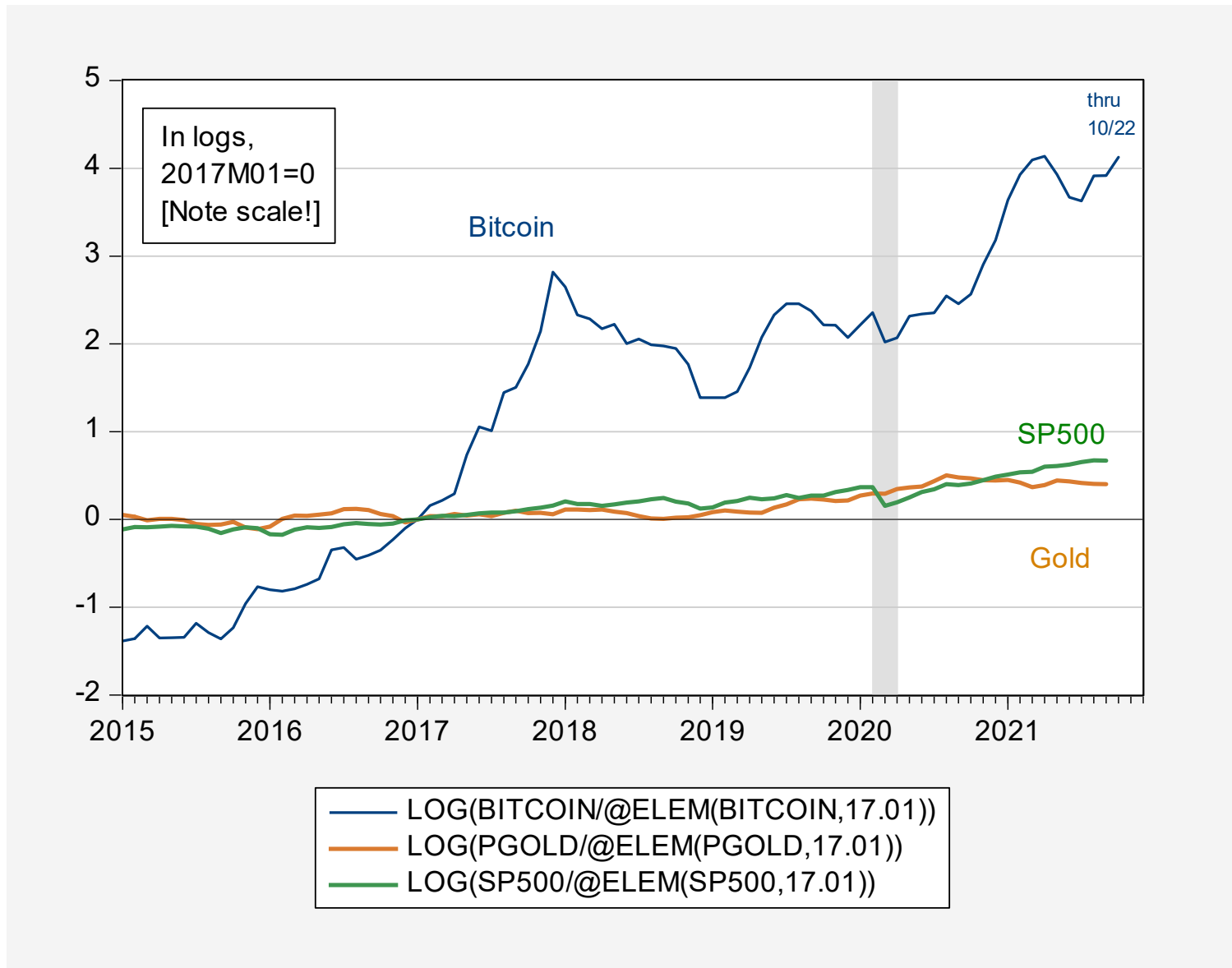
- Bitcoin, Ethereum, Litecoin, Dogecoin, etc.
- Are not “currencies”
- Three roles of money:
 - Unit of account – few price in “BTC”
 - Means of payment – can be done, but less efficient than existing systems
 - Store of value – not very stable
- In US, SEC regulates as “securities” (not money); CFTC as a commodity; IRS as property

Cryptocurrency Price Trends

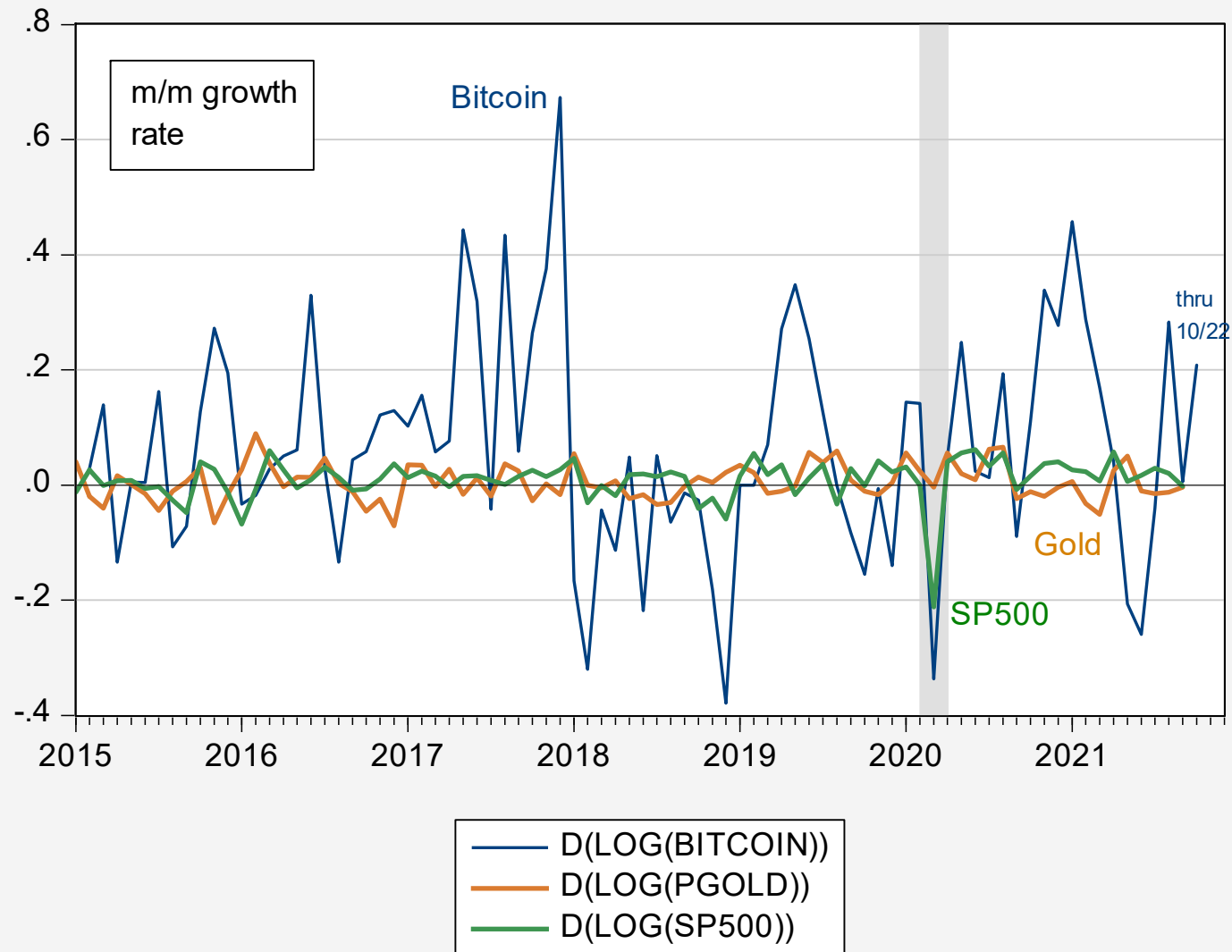


— LOG(BITCOIN/@ELEM(BITCOIN,17.01))
— LOG(ETHEREUM/@ELEM(ETHEREUM,17.01))
— LOG(LITECOIN/@ELEM(LITECOIN,17.01))

Price Compared Against Other Assets



Cryptocurrency Price Volatility



Why Hold Cryptocurrencies?

- Avoid regulations/cross-border barriers, anti-money laundering laws (e.g., in China)
- Hence, cryptocurrencies provide a service
- For those not interested in avoiding regulations, speculation
- Also, as a hedge (e.g., you might want something that rises when SP500 falls, and vice versa).
 - In Capital Asset Pricing Model, this would be a negative “beta”
 - Bitcoin “beta” is about +2 over 2015-2021
 - Gold has beta of -0.7

Speculation

- Remember, pricing model for any asset:

$$P_t = \frac{D_{t+1}}{1+i} + \frac{E_t P_{t+1}}{1+i}$$

- Here, consider D to be the services provided by the anonymity of blockchain technology. If D is small, then the expected price dominates in importance.
- Price today should be sensitive to any news that revises expectations about future price, e.g., regulation, etc.
- Lower interest rates should raise prices

Regulatory, Macro Events and Bitcoin

