```
1 A4 2 sides
```

Fin Econometrics < Final >

3 steps:

1) Model constructions # Understand property of model

Multicollinearity or near multicollinearity

Corr (x_{1,1} x₂) > 0.8

2) Estimation

r autoregressive conditional heteroskedasticity

ARCH: mean equation

volatility equation

y = pxtu if we don't have endogeneity - can use ous

if x x u don't correlate

can use ous to estimate mean equation, not volatility equation

Ofuller > test-stat:

distribution: Dickey fuller dist

rule to reject to: test-stat < critical value

```
, now many times have to do difference to get statirery process
Integration
               don't have to do anything
              I(0)
               ? Integration of order zero
              [(2)
                 x is not stationery process
but 8(3x) is stationary process
```

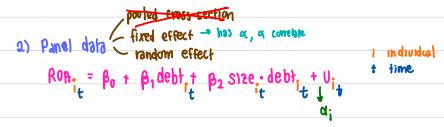
Final exam:

- · Consistency / unbiased
- · Hypothesis lest, confidence Interval
- Interpret β, In [

```
E.g. Check whether debt has positive impact for small firm's Ron but negative impact for large firm's Ron \leftarrow How to model it?

1) Cross-Section data

Ron = \beta_0 + \beta_1 debt + \beta_2 Size debt + U
```



What is the effect of x on y?

Hawman test

$$y_{it} = \beta_0 + \beta_1 x_{1it} + \beta_2 x_{2i} + \alpha_{i} + U_{it}$$

$$RE \ estimator \Rightarrow \beta_1 + \beta_2$$

$$FE \ estimator \Rightarrow \beta_1 + \beta_2$$

$$G \ used to compare$$

Haw man test; compare
$$\hat{\beta}^{FE}$$
 & $\hat{\beta}^{RE}$ \(\begin{array}{c} \beta^{FE} \) & $\hat{\beta}^{RE}$ \(\beta^{RE} \) \(\beta^{FE} \) & $\hat{\beta}^{RE}$ \(\beta^{FE} \) \(\beta^{FE}

```
FINITE Distributed Lags:
                                     * delay effect?
               yt = $0 + 50 xt + 51 xt-1 + ... + 5mx t-m
        depend on relationship blow x 2 probly=1 |x3
     BINARY Response Mulel y can be either o or 1

prob increase linearly
can use olso LPM - Prob &y = 1 | X ] = Xp
            PROBIT ( Prob & y = 1 | x } = COF (x p)
Not linear
             LOGIT
                    if the = 100; -0.3+0.005(100) = 0.2
                                                              = 0 $ (0,1)
            y = \beta_0 + \beta_1 + hrs + \dots + U
    Sample: F7 27 + thr → (100, 20σ) ⇒ β
              FT 42 #hr > (1,2)
                                That autable to use this model I heed new model
```

it's not fit!!

fin mut B, fin stat B,

