SUR MODEL Assumption (Estudion Especial cores destring (security unrelated regressions)

u the previous lesson CAPM

M= equations N= unrelated of Sos

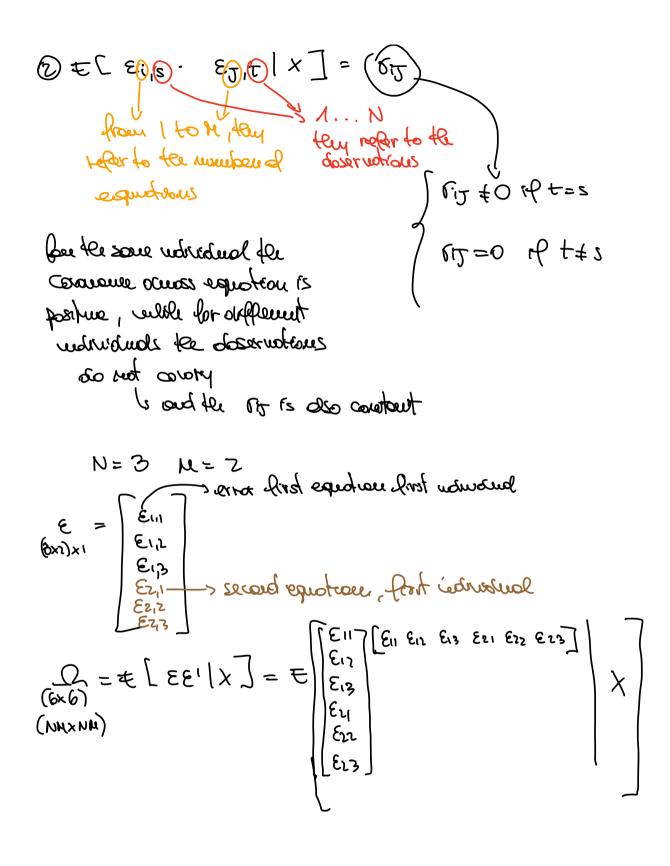
4= X0+ & Y= 41 | 45 | 12 | 14 MKX1

E = 81 | ... | EM NHX1

NMX : Elli O X2. O Joseph was proceed the one reduced the one of the colors, here the is a book reduced the colors.

 $\theta = \left[\theta_1 | \theta_2 | \dots | \theta_R \right]$ $\theta_{\text{ous}} = (x'x)' x' y$

imborport resembran point de annon terms



$$= \overline{\xi}$$

$$\begin{cases}
E_{11} & E_{11} E_{12} & E_{11} E_{13} & E_{11} E_{21} & E_{11} E_{22} \\
E_{12} E_{11} & E_{12}^{2} & E_{12} E_{13} & E_{12} E_{21} & E_{0} E_{22} & E_{0} E_{23} \\
E_{13} E_{11} & E_{13} E_{12} & E_{13}^{2} & E_{13} E_{21} & E_{13} E_{22} & E_{0} E_{23} \\
E_{21} E_{11} & E_{21} E_{12} & E_{21} E_{13} & E_{21}^{2} & E_{21} E_{22} & E_{21} E_{23} \\
E_{22} E_{11} & E_{22} E_{12} & E_{22} E_{13} & E_{22} E_{21} & E_{22} E_{23} \\
E_{23} E_{11} & E_{23} E_{17} & E_{23} E_{15} & E_{23} E_{21} & E_{23} E_{22} & E_{23} E_{23}
\end{cases}$$

= 0 0 612 0 0 0 612 0 0 0 612 0 0 0 612 0 0 0 612 0 0 0 0 612 0 0 0 0

Moneyer Sugary

$$\int_{N} = \sum_{n} \otimes \int_{N} \int_{N}$$

1st Commutative

E - (512 (52) > monerce for the some describiner

Solvention of the some describer of the some describer of the sound of the second equations

as should not be a joid model, it judes the correlation

Fig. 5 =
$$(X \hat{G}^{-1} X)^{-1} X^{-1} \hat{G}^{-1} y$$
 $\hat{G} = \hat{\mathcal{E}} \otimes \text{In}$
 $\hat{G} = \hat{\mathcal{E}} \otimes \hat{\mathcal$

plum &= & it is on estudordeta ruence motione water teau

two special was where Bas = Bass

(estimp) bestates so of been to be als) anomiduos saults les i con estrate as equation by equation in this case

il E is dégravelable correlation ocuss equation ès deto

2) Some Hyressors in each regulation

(M×MM) (2000 - 20) When they repeat it is unefall to

In
$$\otimes \times_0 = \times$$
 required by the idual to but for redtrices

Bas=(x'2-1x)-x'2-y

= [(In @ Xo)'(E' @ In) (In @ Xo)] (In @ Xo)'(E'@ In)y

ter transpse con so inside

$$(A \otimes B)(C \otimes D) = (AC \otimes BD)$$

we are reporting education ph education for a?