Chapt 22 LDC & the real world of growth, crisis & 'reform'?

(1) Two theories of growth

(a) $y = f(k)$ $\Rightarrow$ convergence : income levels & LR growth conditional on s, n, δ, etc.

(b) $y = Ak$ $\not\Rightarrow$ convergence : rates of growth

(2) Have profound implications for the gap between rich & poor.

Developing Economies

Characterized by:

(1) direct government control of the economy
(2) high inflation (seigniorage)
(3) weak legal institutions cannot protect financial institutions & consequently private saving.
(4) exchange controls or 'managed'
(5) often export commodities: oil, coffee, wheat, gold
(6) Weak rule of law & ∴ corruption.

No decreasing returns to the accumulating factor.

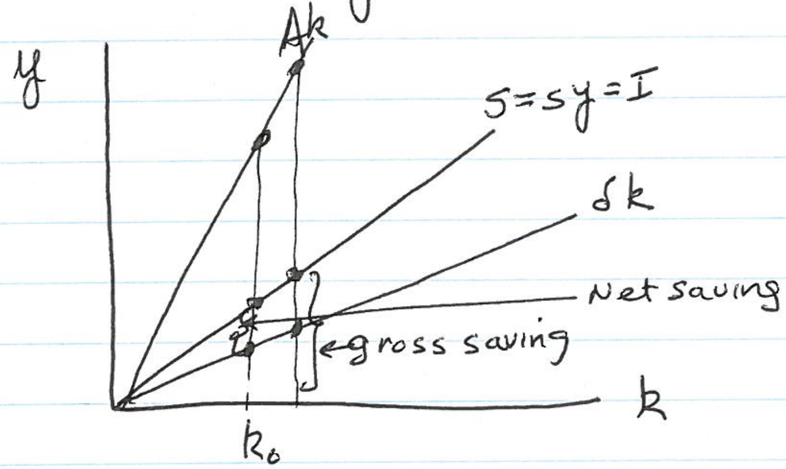
e.g.

$$y = Ak \qquad \text{not} \qquad y = k^{\alpha} \quad \alpha < 1$$

$$S = sy = I \qquad \text{Net Saving} = I - \delta k$$

$$= sk - \delta k \quad \text{if } A = 1$$

$$= (s - \delta)k$$



∴ <u>net</u> saving does not fall with income (if A=1 for simplicity) growth is constant

$$y = k \qquad \frac{dy}{dt} = \frac{dk}{dt} \Rightarrow \left(\frac{1}{y}\frac{dy}{dt}\right) = \left(\frac{1}{y}\frac{dk}{dt}\right) = \left(\frac{1}{k}\frac{dk}{dt}\right)$$

$$\frac{1}{k} \cdot \frac{dk}{dt} = \frac{1}{k}(sk - \delta k) = \frac{1}{k}(s - \delta)k = s - \delta$$

∴ growth $\frac{1}{y}\frac{dy}{dt} = s - \delta$ is a constant and differs among countries as a function of the savings rate.

More complicated models incorporate population growth, technological change, human capital, the rate of invention among other things, but the fundamental point is that with no tendency for growth to slow, there is no case for convergence in income levels.

Borrowing + Debt in LDCs

Many rely on financial inflows to finance domestic investment

$$Y^e = C + I + CA$$
$$Y = C + S_d \qquad S_d \text{ to emphasize it is domestic saving}$$
$$Y^e = Y$$
$$S_d = I + CA \Rightarrow I = S_d - CA \qquad \text{if } CA < 0 \Rightarrow I > S_d$$

Make sense that countries borrow when poor to invest (debtors) in high return projects. As $\underline{k}$ grows, they become balanced and finally become creditors themselves.

Debt and Default

Sovereign debt is the issue since other debt can insist on collateral. Yet sovereign defaults abound!
- US states; Mexico, Argentina, Russia, etc. historically
- modern 2005 - Argentina ($2/3$'s haircut)

If $I + CA = S_d$ no more loans $\Rightarrow CA = 0 \Rightarrow I_d = S_d$

and $\therefore I \downarrow$ to local levels.

If ~~CA~~ short-term debt is repatriated by international lenders, the LDC is increasing its $\underline{\text{net}}$ foreign wealth, net exports will have to rise.

Debt Crisis of 1980s

1981-83: LDC lots of \$ denominated debt
$*3(x)\ r_{US}\uparrow$; $E_{\$/x}\downarrow$ (appreciated \$); commodity prices fell

Mexico: could not repay its debts. & many others in Latin America & some 40 others were stressed by 1986. Fear of general financial collapse by lending institutions reduced debt obligations by 1990 (12% for Mexico & others)

1990's: renewal of international private lending to LDC's

Latin America: complex individual histories

East Asia: until 1997 was high growth

Korea: 1963 reforms

* high saving rates

\- weak productivity

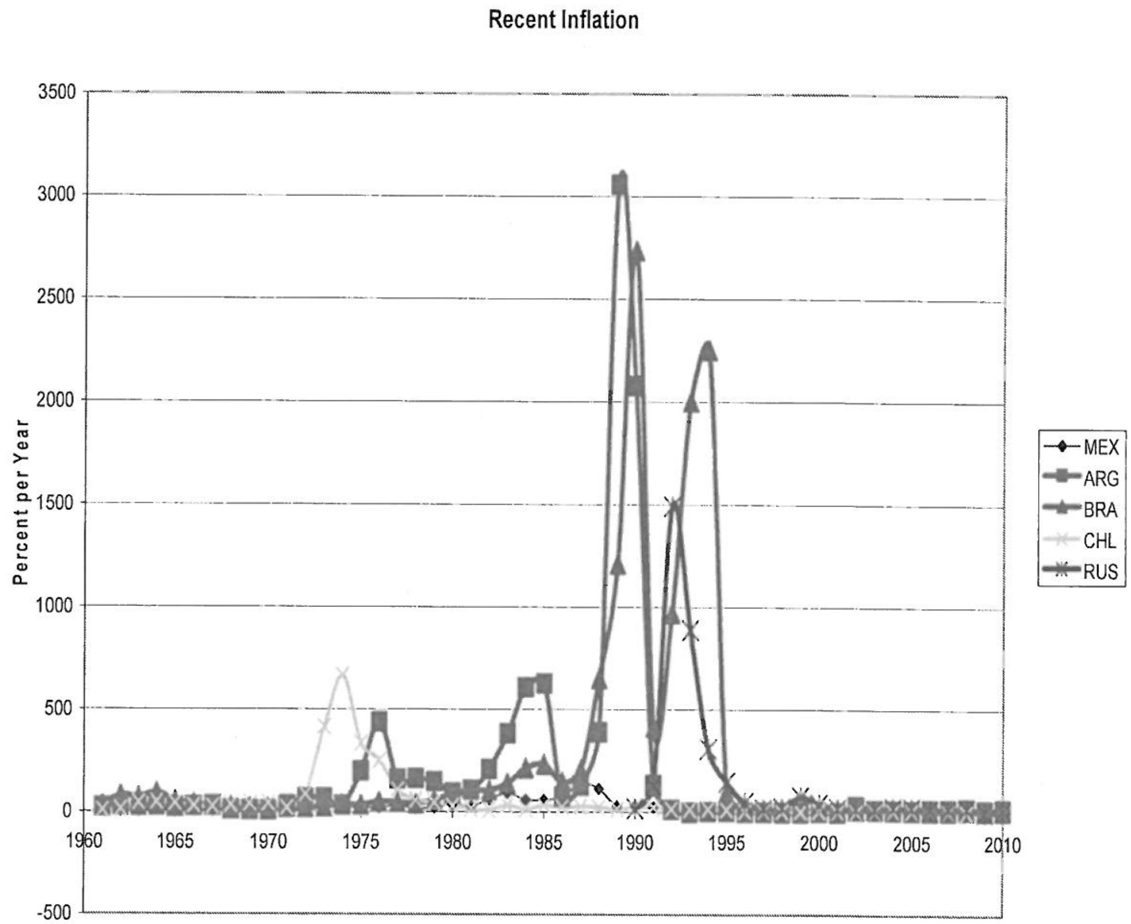
$$Y = AK^{\alpha}L^{\beta}H^{\gamma}$$

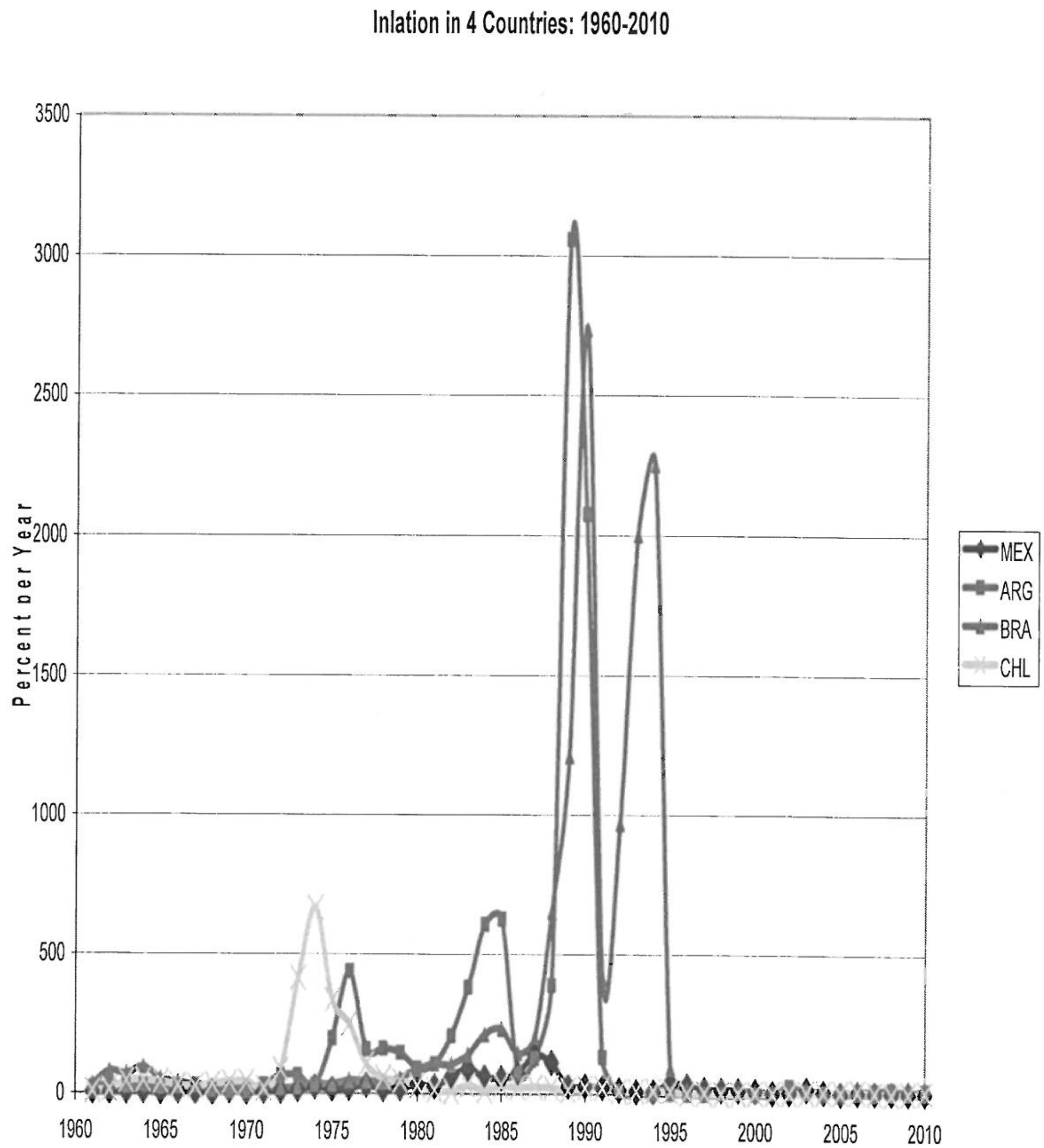
$$A = \frac{Y}{K^{\alpha}L^{\beta}H^{\gamma}}$$

If $L = L_{MALES} + L_{FEMALES}$ $\quad L_F \uparrow\uparrow$

\- Bank regulation - weak and opaque

\- Legal framework - weak in bankruptcy + legal reorganization of assets


Recent Inflation
3500
3000
2500
2000
1500
1000
500
0
-500
Percent per Year
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
MEX
ARG
BRA
CHL
RUS



Inlation in 4 Countries: 1960-2010
Percent per Year
3500
3000
2500
2000
1500
1000
500
0
1960
1965
1970
1975
1980
1985
1990
1995
2000
2005
2010
MEX
ARG
BRA
CHL

Reserves

Why do countries care about reserves + who provides them:

Think of reserves as 'world monetary base"

(2)

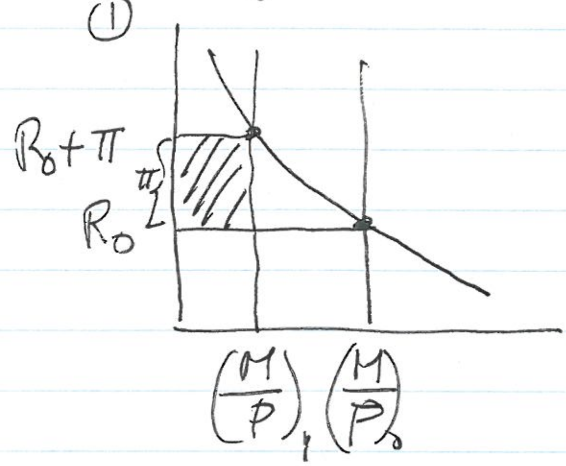
$$\text{(real) } G = \frac{1}{P}\frac{dM}{dt}$$

$$= \frac{M}{P}\frac{dM}{dt}\frac{1}{M}$$

$$= \frac{M}{P}\left(\frac{1}{M}\frac{dM}{dt}\right)$$

$$= \left(\frac{M}{P}\right)\pi$$

(1)



∴ The increase in spending is financed by printing money and in this simple case w/ no income growth, this leads to a simple observation identifying the real value of the tax (on money holdings)

The difference between the face value of the money & the cost of production is "seigniorage".

This is why is has been hard to get an agreement for a "world money" because who would get the seigniorage?