Romer or Ricardo?

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Discussion by Sam Kortum

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- I like this agenda!

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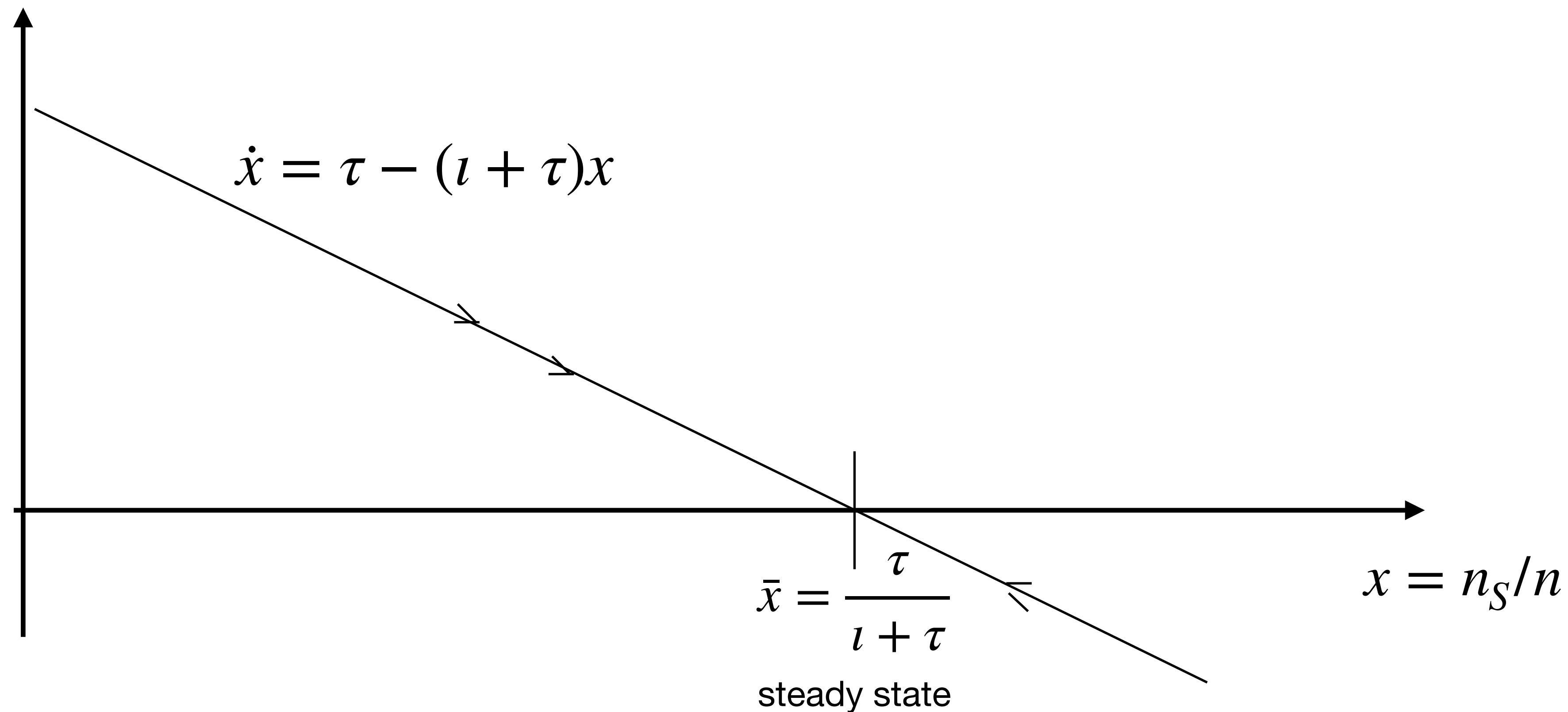
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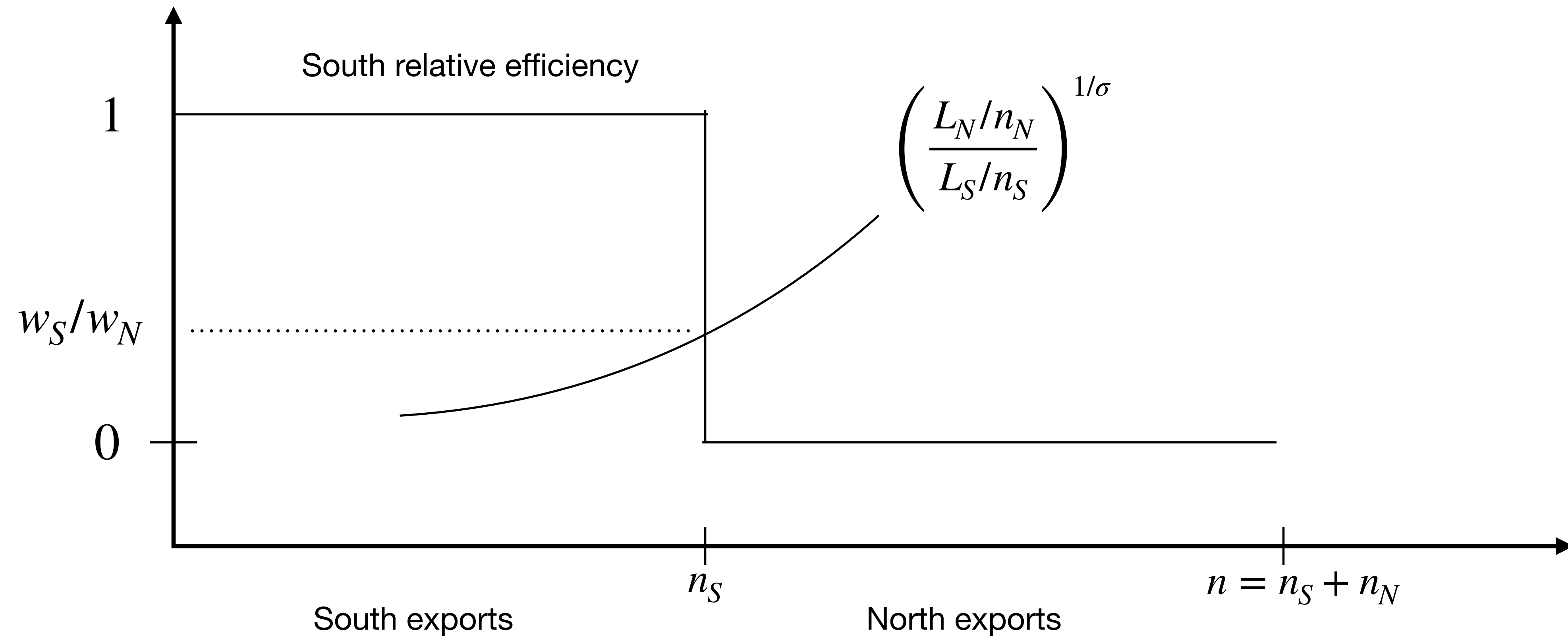- Suggestion: revisit Krugman (1979, JPE)

  - collapsed into two figures …

- Varieties produced in North and South (US and China) $n = n_N + n_S$

- Innovation (North) and imitation (South) $\dot{n} = \iota \times n$ $\dot{n}_S = \tau \times n_N$

$$\dot{x} = \tau - (\iota + \tau)x$$

$$\bar{x} = \frac{\tau}{\iota + \tau}$$

steady state

$$x = n_S/n$$

- Fit's into DFS

South relative efficiency

$$\left(\frac{L_N/n_N}{L_S/n_S} \right)^{1/\sigma}$$

South exports — North exports

n_S — $n = n_S + n_N$

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4. Half of world growth comes from innovation on imports and 1/3 from new products

5. Most small-country growth comes from foreign innovation, but only 1/4 for the US

Gagnon and Rose: Contrarians

- NBER Working paper #3946 (1992); Oxford Economic Papers (1995)

- Examines multilateral product-level trade data for US and Japan, 1962-1988

- Key statistic is normalized trade balance of product i $$NB_{it} = \frac{X_{it}}{\sum X_{i't}} - \frac{M_{it}}{\sum M_{i't}}$$

- Finds little evidence for Krugman-type product cycles (here South was Japan)

- In 1962, nearly 48% of US trade was in products with surplus (1 std. dev. above balance)

  - 29% was still in surplus by 1988, and only 1.6% had moved to deficit (1 std. dev. below balance)

- In 1962, about 23% of Japanese trade was in products with deficit

  - 14% remained there by 1988 and only 5% had moved to surplus

Conclusion

- We need more evidence on the nature of innovation

  - product-level trade data is a good vein to tap!

- Look for more parsimony in the model: e.g. Krugman

- Look for additional statistics: e.g. Gagnon and Rose

  - try to resolve the puzzle: why were their findings so negative on product cycles?