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The Marginal Product of Capital

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Discussion by

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Is MPK Higher in Poor Countries?

MPK=R and $RK/Y = \alpha$

=> $R = \alpha/(K/Y)$

Conventional Wisdom:

Fact 1: K/Y Low in Poor Countries

Fact 2: Capital Share (Roughly) the Same

=> MPK Higher In Poor Countries

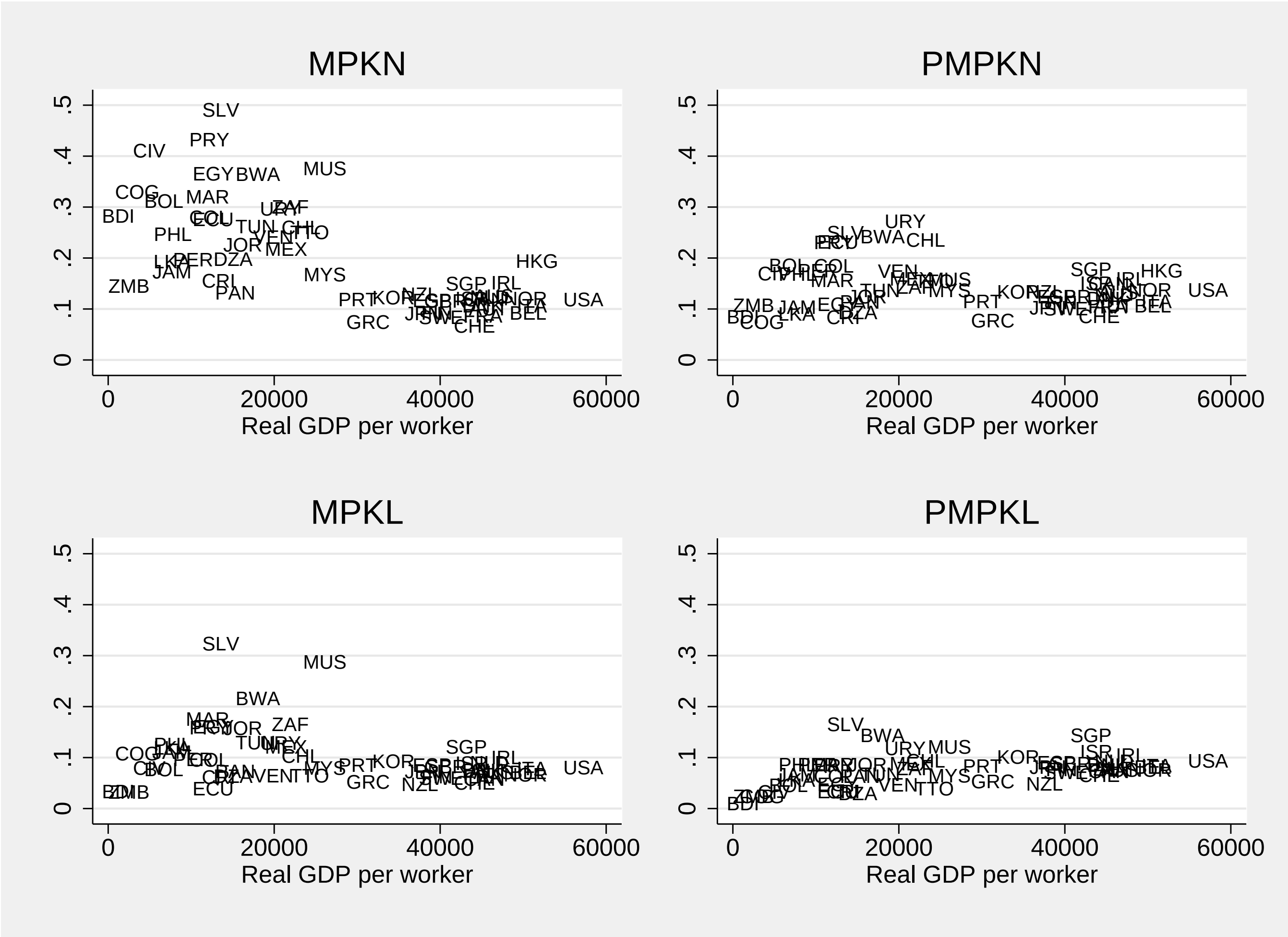


Figure I:
The Marginal Product of Capital

$MPKN$: naive estimate. $MPKL$: after correction for natural-capital. $PMPKN$: after correction for price differences. $PMKL$: after both corrections. Source: Heston et al. [2004], Bernanke and Gurkaynak [2001], and World Bank [2006]. Authors' calculations.

Get the Facts Right

Share of Reproducible Capital Lower in Poor Countries (Agricultural Sectors Larger)

=> MPK is Still Higher in Poor Countries, but Not By As Much as We Thought

Why is the MPK High in Poor Countries?

Return to Capital Higher in Poor Countries

=> High Risk/Global Capital Market Imperfections

Value of MPK is No Higher in Poor Countries

What is the Return to Capital?

$$R = \frac{P_Y MPK}{P_K} \quad \text{and} \quad \frac{P_Y MPK \cdot K}{P_Y Y} = \alpha$$

$$\Longrightarrow \frac{R P_K K}{P_Y Y} = \alpha$$

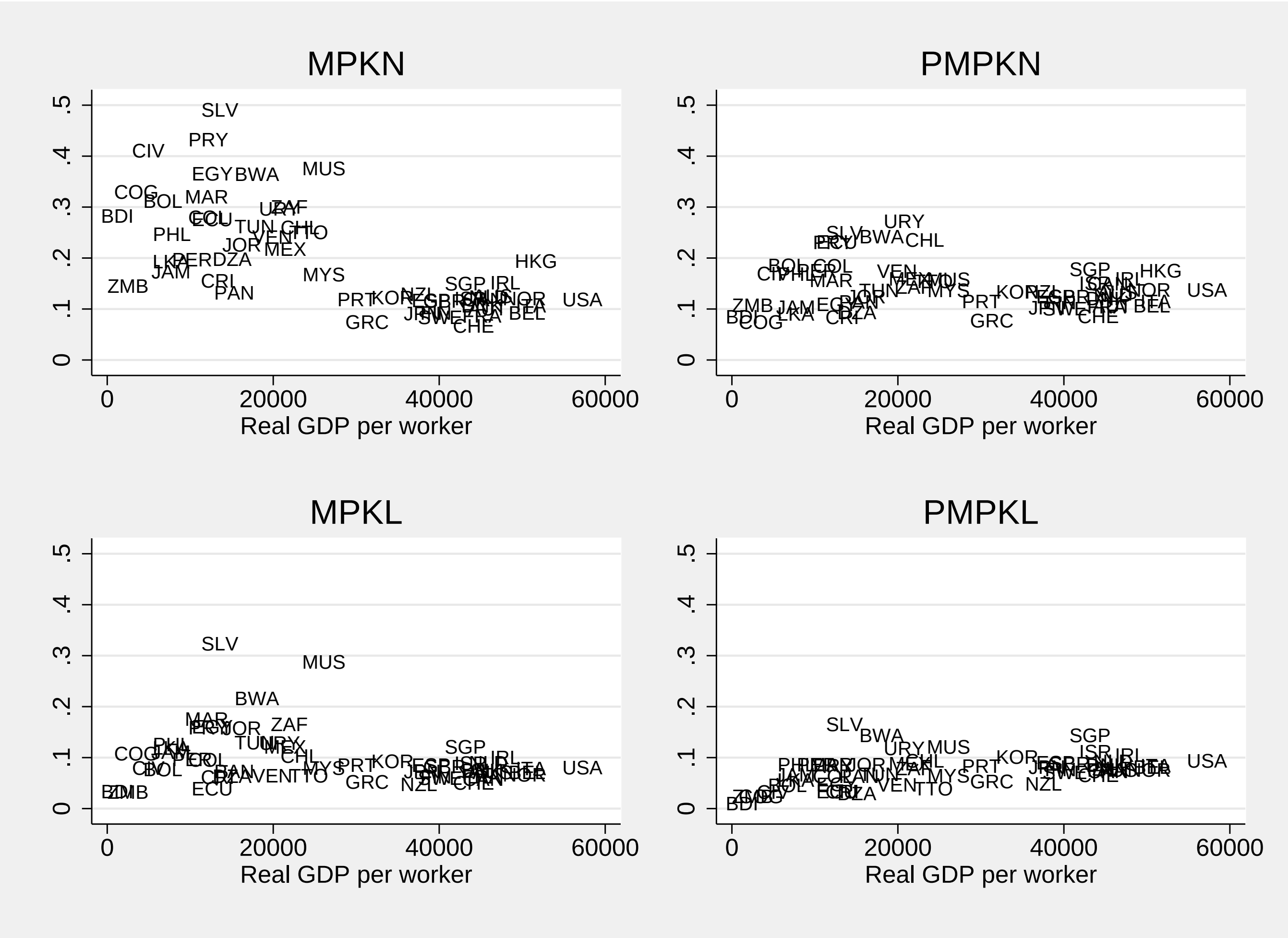
$$\Longrightarrow R = \frac{\alpha}{\left(P_K K / P_Y Y\right)} = \frac{MPK}{\left(P_K / P_Y\right)}$$

Is the Return to Capital Lower in Poor Countries?

Fact 1: MPK Higher in Poor Countries (Although Not By As Much As We Thought)

Fact 2: P_K/P_Y Also Higher in Poor Countries

$$=\gg \frac{MPK}{\left(P_K / P_Y\right)} = R$$ No Higher in Poor Countries



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Would World Output Increase If Capital Were to Flow to Poor Countries?

Caselli-Feyrer: No

But in world where aggregate return masks heterogeneity in returns?

Does China Benefit from Capital Flows?

Aggregate Return to Capital About the Same as In Rest of World

But Large Inflows of FDI

=> Second Best Response to Domestic Credit Market Imperfections

Why Is the Capital Share Higher in Rich Countries?

Biased Technological Difference?

Reallocation towards Higher Capital-Intensive Sectors (Ventura/H-O Effect)?

Summary

MPK Higher In Poor Countries, But Not By As Much When Capital Shares are Measured Properly

Value of MPK is NOT Higher in Poor Countries

Would welfare increase with more capital flows from rich to poor?