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 LISBOA SCHOOL OF ECONOMICS & MANAGEMENT

Teórica 16

Macroeconomia II


Macro 2


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Teórica nº 16

Tema da aula de hoje (15.04.2014) Teórica nº 16

Cap 08 O modelo de Romer e o modelo de Schumpeter (4ª de 4)

O efeito do comércio internacional no crescimento: uma abordagem a partir do modelo de Romer. Aplicações empíricas.


Leituras Obrigatórias


Jones, C., Vollrath, D. (2013), *Introduction to Economic Growth*, Norton, capítulo 6, (6.4 Globalization and Trade) pp. 148 - 152.

Recomenda-se a consulta de

Broda, C., J. Greenfield, D. E. Weins (2010), *From Groundnuts to Globalization: A Structural Estimate of Trade and Growth*, December 28, 2010, Working Paper

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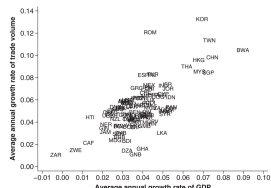

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Qual o efeito do **comércio externo** no crescimento?

Recordar os **factos estilizados do crescimento**

FIGURE 1.3 GROWTH IN TRADE AND GDP, 1960-2008



modelos de crescimento

- neoclássico
- novos modelos (cresc endógeno)

economia fechada!

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From Groundnuts to Globalization: A Structural Estimate of Trade and Growth

December 28, 2010

Christian Broda, Joshua Greenfield, and David E. Weinstein

Abstract

Starting with Romer [1987] and Rivera-Batiz-Romer [1991] economists have been able to model how **trade enhances growth** through the **creation and import of new varieties**. In this framework, international trade increases economic output through two channels. First, **trade raises productivity levels** because producers gain access to new imported varieties. Second, increases in the number of varieties **drives down the cost of Innovation** and results in ever more variety creation. Using highly disaggregate trade data, e.g. Gabon's imports of Gambian groundnuts, we structurally estimate the impact that new imports have had in approximately 4000 markets per country. We then move from groundnuts to globalization by building an exact TFP index that aggregates these micro gains to obtain an estimate of trade on productivity growth for each country. We find that in the typical country in the world, **new imported varieties account for 10-25 percent of its productivity growth**. However, when we structurally estimate the long-run impacts of these productivity growth effects, we find that import variety growth between 1994 and 2003 **raised world permanent income by 17 percent**.

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I. Introduction

Economists have long postulated that trade may raise growth. However, it was not until the work of Romer [1987] and Rivera-Batiz and Romer [1991] that we had a general equilibrium model that would let us understand how trade might bring this about. While this seminal work has spawned the development of the vast endogenous growth literature, it has fallen short of taking these models to the data. **This paper is the first attempt to structurally estimate the impact that trade has on growth as suggested by the endogenous growth literature.** To do this, we extend Jones [1995] into a (...)

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efeito do comércio externo no crescimento

à luz do modelo de Romer: aumento da **variedade** dos bens intermédios

$$Y = L_y^{1-\alpha} (x_1^\alpha + x_2^\alpha + \dots + x_n^\alpha)$$

$$Y = L_y^{1-\alpha} (x_1^\alpha + x_2^\alpha + \dots + x_n^\alpha + x_{n+1}^\alpha + \dots + x_{n+m}^\alpha)$$

h bens **produzidos** na economia
m bens produzidos fora da economia, **importados**



sendo x a quantidade usada de cada bem, temos o stock de capital na economia

$$K = x \cdot (h + m); x = K / (h + m)$$

e portanto:

$$Y = (h + m) \cdot L_y^{1-\alpha} \cdot x^\alpha$$

$$Y = (h + m)^{1-\alpha} \cdot L_y^{1-\alpha} \cdot K^\alpha = K^\alpha \cdot ((h + m) \cdot L_y)^{1-\alpha}$$

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vem:

$$Y = (h + m)^{1-\alpha} \cdot L_y^{1-\alpha} \cdot K^\alpha =$$



$$= K^\alpha \cdot ((h + m) \cdot L_y)^{1-\alpha} =$$

$$= K^\alpha \cdot (h \cdot L_y)^{1-\alpha} \cdot (1 + m/h)^{1-\alpha}$$

interpretação

(h + m) entra como uma tecnologia incorporada no trabalho;
ou
h entra como uma tecnologia incorporada no trabalho;
e
a f.p. tem um factor de escala que depende de m/h (relação entre o número de bens importados relativamente aos dos de produção nacional)

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interpretação (cont.)

aumento de m/h tem efeito similar ao de aumento de s_c : a economia cresce para um nível de rendimento per capita mais elevado (novo equilíbrio estacionário)

efeito do comercio internacional no crescimento depende de m/h e não apenas de m; em *steady state* (trajetoria de crescimento equilibrado) h cresce a uma taxa constante, β_h , e portanto m/h decresce a menos que m aumente também.

ver WP de Broda *et al.* (2010)

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