Trade and Redistribution (politically relevant)

- **Several trade models show that free trade will cause a redistribution of real income**
  - *Assumptions*: Two goods, simply labeled "import good" and "export good". Production of these goods requires two factors of production, capital and labor. Country is capital abundant relative to world (e.g., the US). Export good is capital-intensive.
  - Models make different assumptions about *domestic factor mobility*: the ease with which capital and labor can shift between industries.
  - Note that the degree of domestic factor mobility is a function of *time*, with mobility increasing over time. We consider three models of income distribution following a move to free trade: a short-run, a medium run, and a long-run model.

1. <u>Immobile</u> factors model (short-run)

  - Suddenly, there is free trade. In the very short run, neither capital nor labor is mobile across the two industries.
  - Free trade raises the price of the export good and lowers the price of import good.

Immobile and Specific Factor Models

- **Immobile factors model (cont.)**
  - Given factor immobility, real returns to labor and capital rise in the export industry and fall in the import industry.
  - In the short-run, free trade benefits workers and capitalists affiliated with the export industry and harms workers and capitalists affiliated with the import industry.
- **<u>Specific</u> factor model (medium-run)**
  - Assume that labor is freely mobile between the two industries; capital is completely immobile.
  - With free trade, workers from the import sector move into the export sector, lowering wages in the export sector and raising wages in the import sector--wages eventually equalize.
  - Return to capital in the export industry is higher than before free trade; return to capital in import industry falls.
  - Effect on *real* income of workers ambiguous (depends on worker consumption patterns of the two goods)

Mobile Factors Model

- **Mobile factors model (long-run)**
  - Both capital and labor are completely mobile across the two industries (as in Heckscher-Ohlin)
  - Capital in the import industry now begins to move to the export industry to earn higher return.
  - Supply of capital will rise in the export industry; fall in the import sector--return to capital will equalize across industries
  - Because the export industry is capital-intensive, its demand for capital per worker is greater than the amount of capital per worker that the labor-intensive import industry is able to give up. Hence, the import industry is shedding more labor than capital, producing an excess of labor in the market (just as there is a shortage of capital in the market).
  - This "magnification effect" is crucial to Stopler-Samuelson theorem: Labor loses and capital wins from free trade in a capital-abundant country.

Implications for U.S. lobbying patterns

Immobile factors

	Export Industry	*Import Industry*
Workers	Gain	Lose
Capitalists	Gain	Lose

Specific-factor (Ricardo-Viner)

	Export Industry	*Import Industry*
Workers	??	??
Capitalists	Gain	Lose

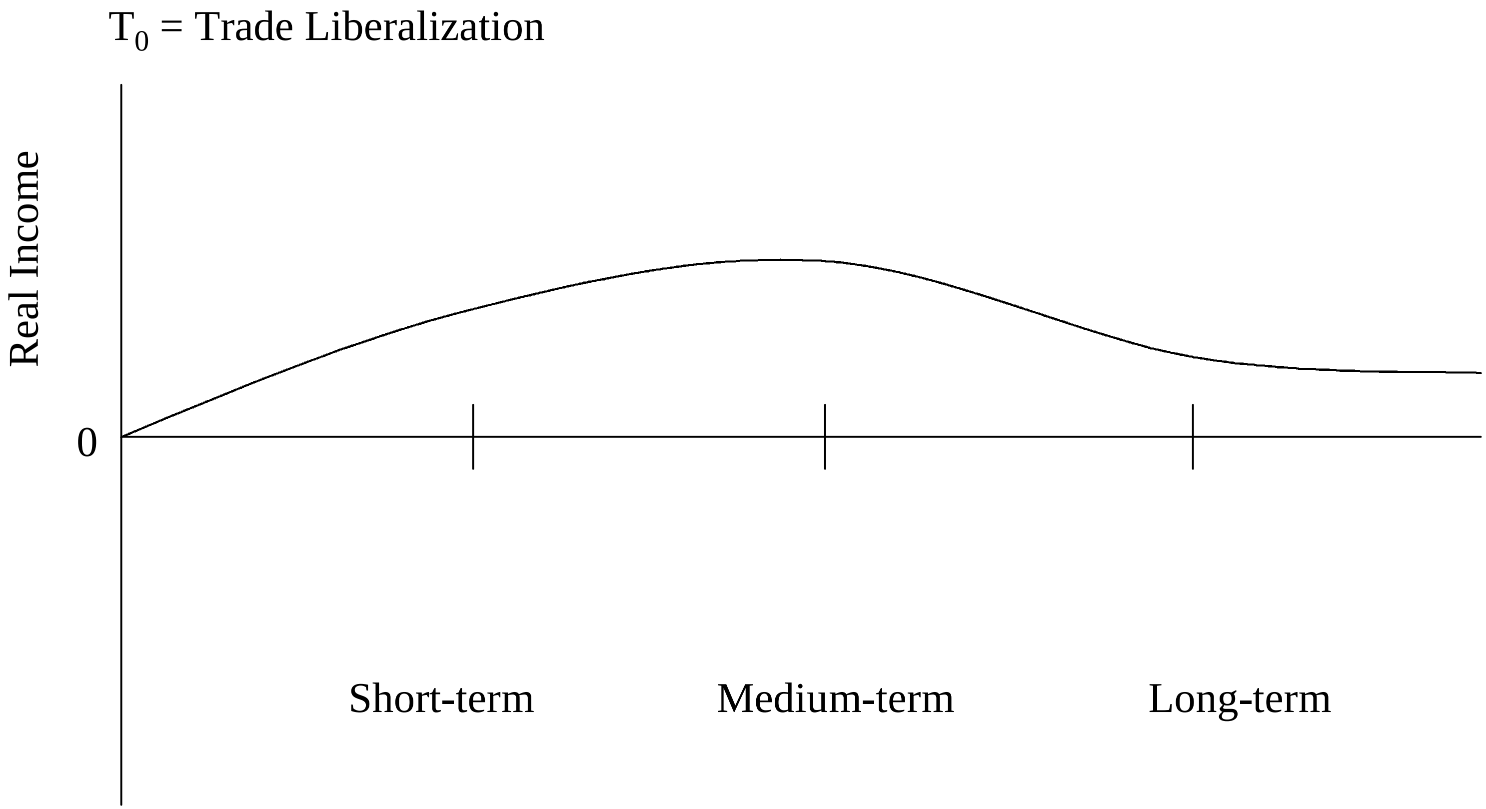
Mobile factors (Stolper-Samuelson)

	Export Industry	*Import Industry*
Workers	Lose	Lose
Capitalists	Gain	Gain

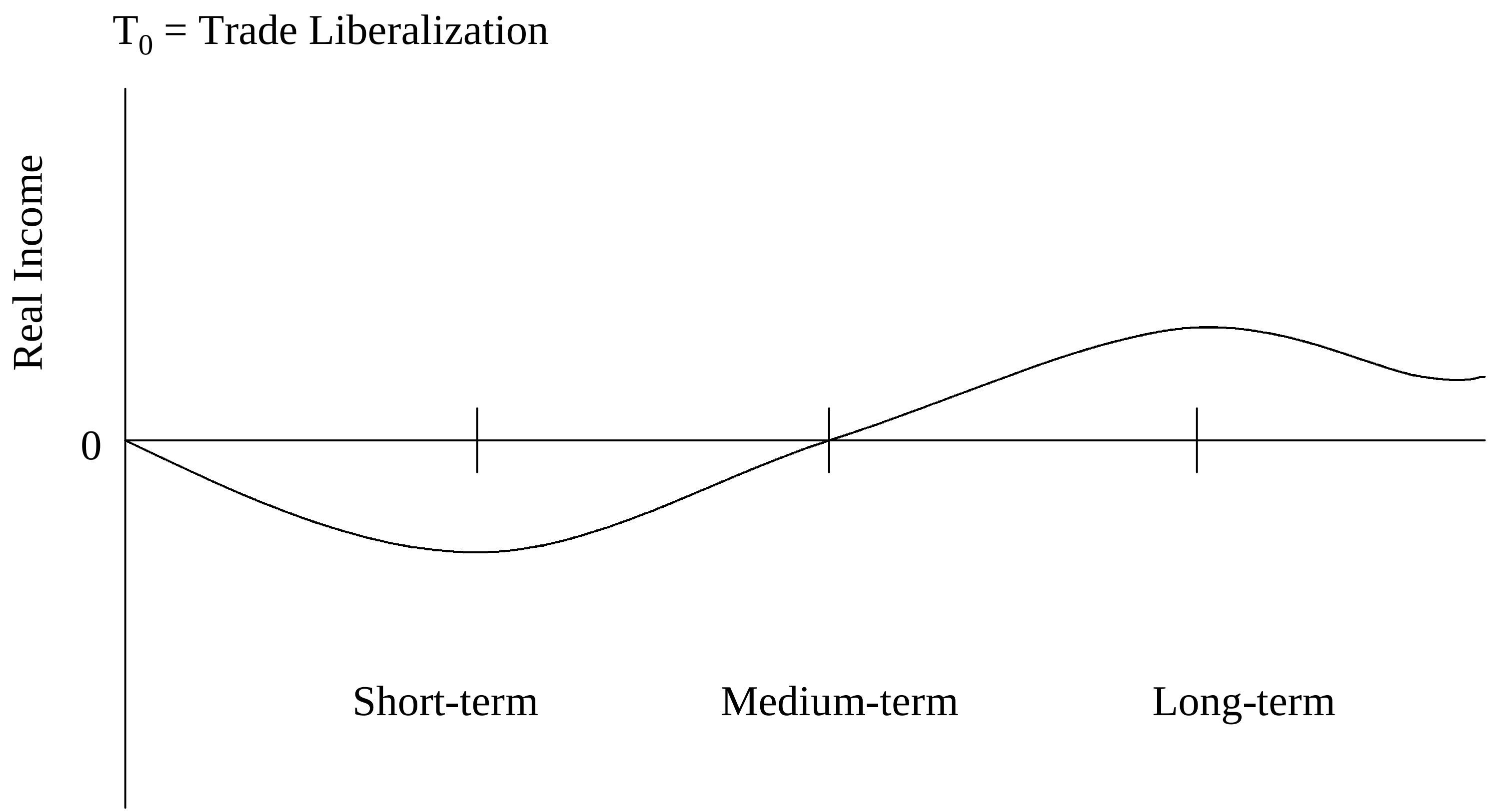
short-run medium-run long-run

Dynamic income redistribution from trade liberalization

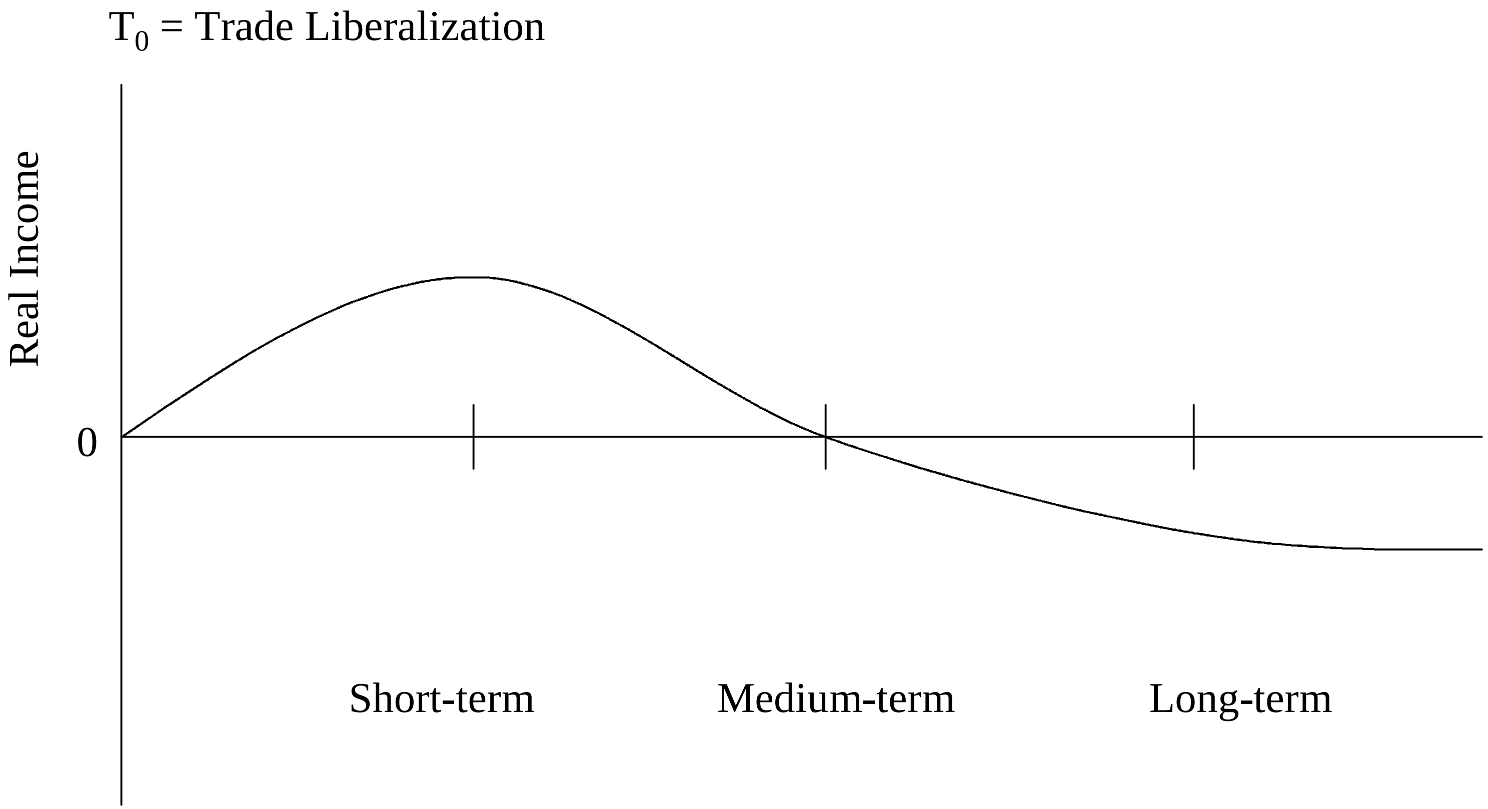
Capital Income - Export Industry



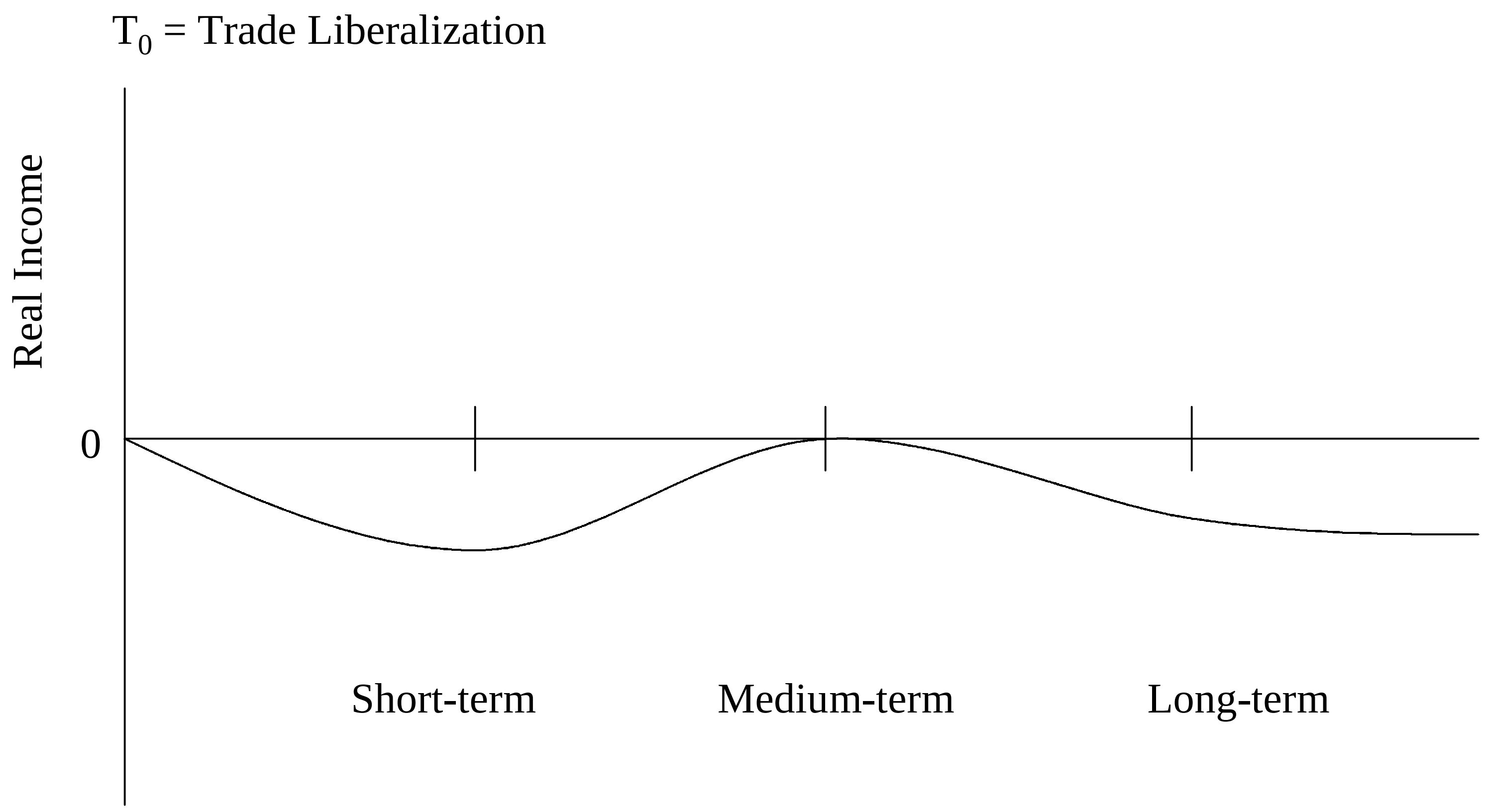
Capital Income - Import-Industry



Labor Income - Export Industry



Labor Income - Import Industry



Empirical results for lobbying on the Trade Reform Act of 1974

		Position of industry's labor	
		1. Protectionist	2. Free trade
Position of industry's capital	1. Protectionist	11 Distilling Textiles Apparel Chemicals Plastics Rubber shoes Leather Shoes Stone products Iron and Steel Cutlery Hardware Bearings Watches	12 Tobacco
	2. Free trade	21 Petroleum	22 Paper Machinery Tractors Trucks Aviation

Source: S.P. Magee, et al, *Black Hole Tariffs and Endogenous Policy Theory* (Cambridge University Press, 1989), p. 108.