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# The Revival of Classical Theory of Values

Yoshinori SHIOZAWA  
professor emeritus, Osaka City University

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# § 1. Introduction

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- My intension and core propositions
- What we have to abandon.

# The Themes of the Conference

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- English Session: Political Economy  
Now: Challenges to the Orthodoxy
- We are all asked what kind of challenge we have in mind.
- My theme: What will be the theory which can rival the mainstream?

# My main proposition:

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- The core of the economic theory
  - Theory of value (price theory)
- Mainstream: neoclassical theory of value
  - various variations: Jevons, Marshall, Walras
  - Modern form: General Equilibrium Theory (GET)
  - Actual dominant fashion: DSGE (Dynamic Stochastic General Equilibrium model)
- Rival theory
  - classical theory of value (a theory which can rival the mainstream)
  - combine Keynes' idea with classical theory of value

# What is classical theory of value?

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- labor theory of value? No.
- substance theory of value? No.
- It is the production theory of value.
  - relation theory (no substance in exchange)
  - difficulty lies in circularity of the definition
    - ◆ cost calculated by prices
    - ◆ value determines value
- a system of simultaneous equations
  - Not like Jevons or Walras

# Strong conservative tendencies:

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## ● Marxian economists:

### ■ Marxian orthodoxy

- ◆ Catechisms, Text interpretation, Ideological criticism
- ◆ Theological hermeneutics, metaphysical

### ■ Two breakthroughs in Japan: Uno & Okishio

- ◆ tried to transform Marxian economics into a science

## ● A lack of challenge and innovation

# C.A. prevents counterattacks:

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- Admit weak and wrong points:
  - subsistence wage theory (social and cultural)
  - wage fund theory (J.S. Mill's time)
  - labor theory of value (narrow interpretation)
    - ◆ wide int.: labor is the origin of value
    - ◆ narrow int.: exchange value is proportional to embodied amount of labor
- Discard them and don't be defensive!
  - In a defensive battle in theories: sure to lose

# History of economics since Smith

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- Two competing paradigms

- Classical vs. Neoclassical economics

- Neoclassical economics

- main stream, general equilibrium, ect.

- Classical economics?

- theories to be discarded

- ◆ wage fund theory, subsistence wage, ect.

- the core: classical theory of value

# § 2. Classical theory of value

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- Two problems Ricardo left
  - theory of (domestic) values
  - theory of international values
- Present situation of the theories

# Ricardo's two problems left

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- Ricardo: (my appraisal)

- Economics became a theory science.
- Theory: a system of concepts and a few sets of propositions by which to explain various phenomena logically (mathematically)

- What Ricardo could not succeed:

- RP I: Value theory in a (isolated) country
- RP II: International theory of value

# Ricardo problem I:

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- Problem: Formulate a classical theory of value
- Almost solved by Sraffa (1960)
  - + OERG's Survey (1930's) + Sraffa(1926)
- Still developing
  - Prices: determined by the full cost principle.
  - Supply behavior (of firms): supply as much as demanded at the fixed product price (Sraffa, 1926)
  - Minimal value theorem (Samuelson, 1951; See later)
  - Demand factors in price decision: Target cost (designing)

# Characteristics of the classical theories of value

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- Lack of demand theory?
- No! Constant prices in spite of demand change.
  - Supply changes according to demand.
  - See minimal value theorem (Samuelson's non-substitution theorem).
  - Choice of techniques not apparent
- Internal logic which make possible full cost pricing! (logic under the phenomenon)

# Minimal Value Theorem (Non-Substitution Theorem)

Commodity 2

Net Production Vectors  
for Commodity 2

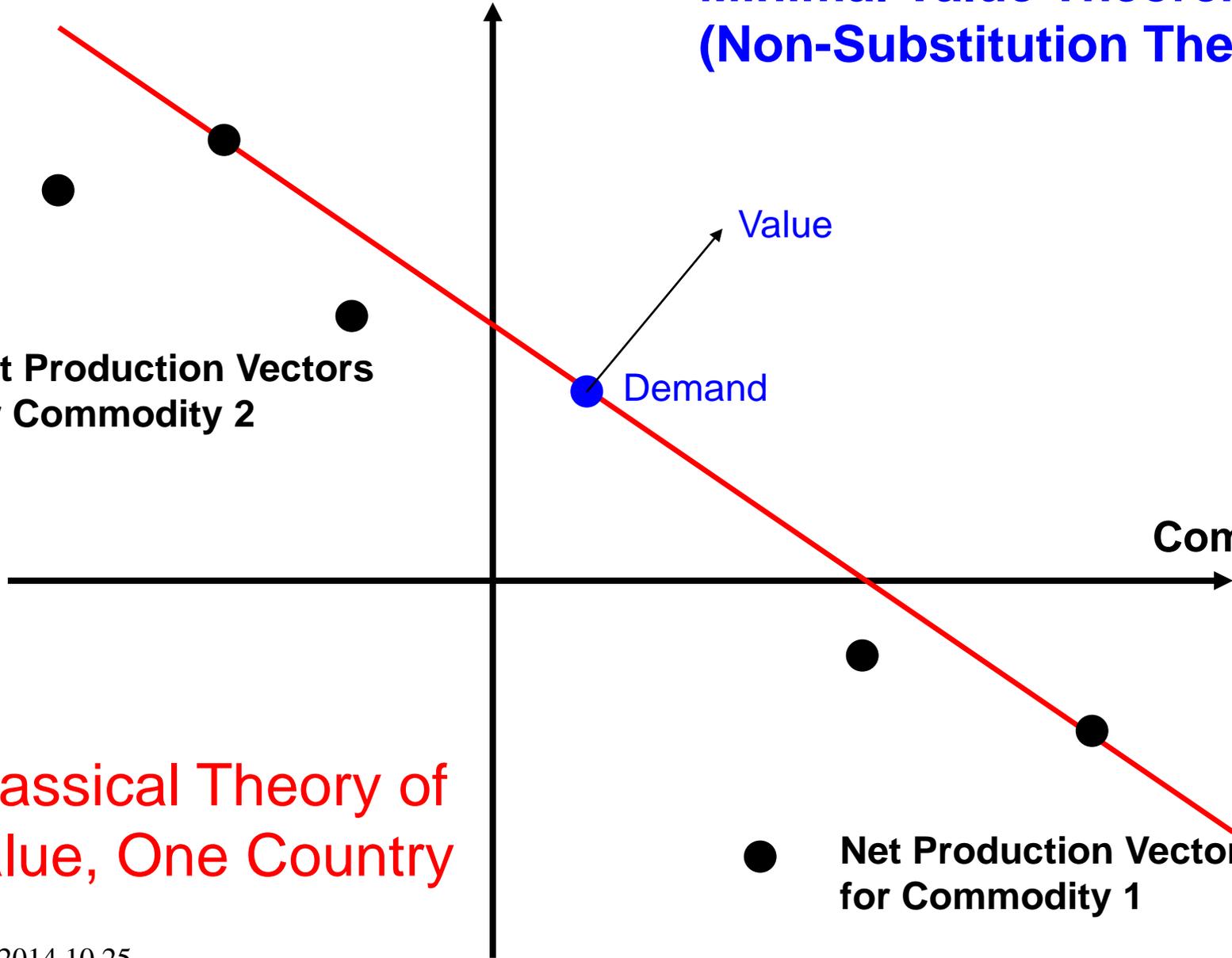
Value

Demand

Commodity 1

Classical Theory of  
Value, One Country

Net Production Vectors  
for Commodity 1



# Ricardo problem II

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- Classical theory of value was not applicable to international trade situation.
- Ricardo problem II. Construct a theory of international values!
- This was (and is) important.
  - Largest weak point of the classical value theory.
- Young Mill tried to fill in the blanks and find a “solution.” This “solution” determined the future of the economics.

# J.S. Mill's “solution”

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## ● Mill's situation setting

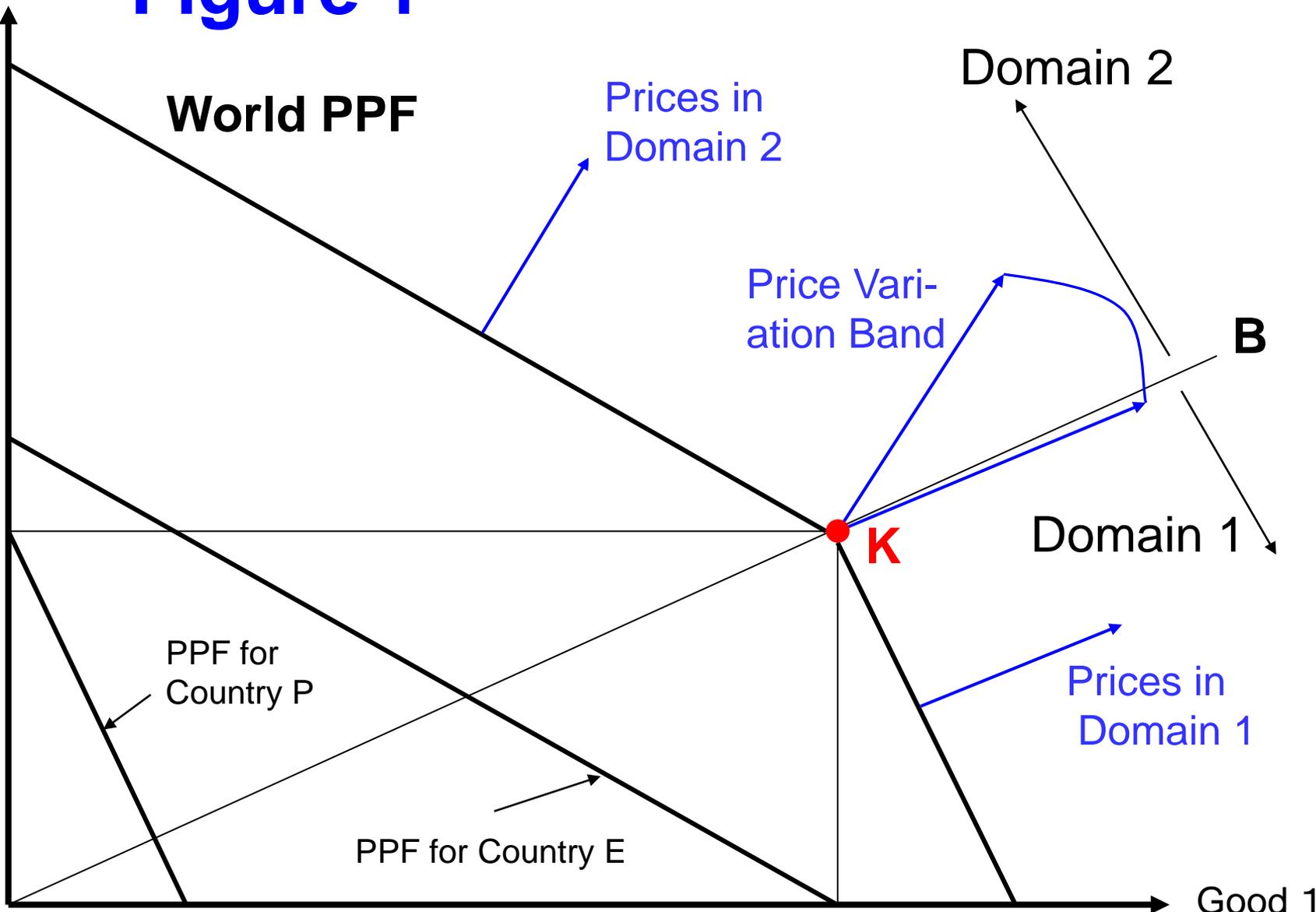
- 2 country, 2 commodity case
- two countries enjoy gains from trade.
- Are these assumptions innocent? **No!**

## ● Complete specialization.

- If labor power is given, the amount of product produced is determined.
- Equivalent to exchange situation of two predetermined goods.

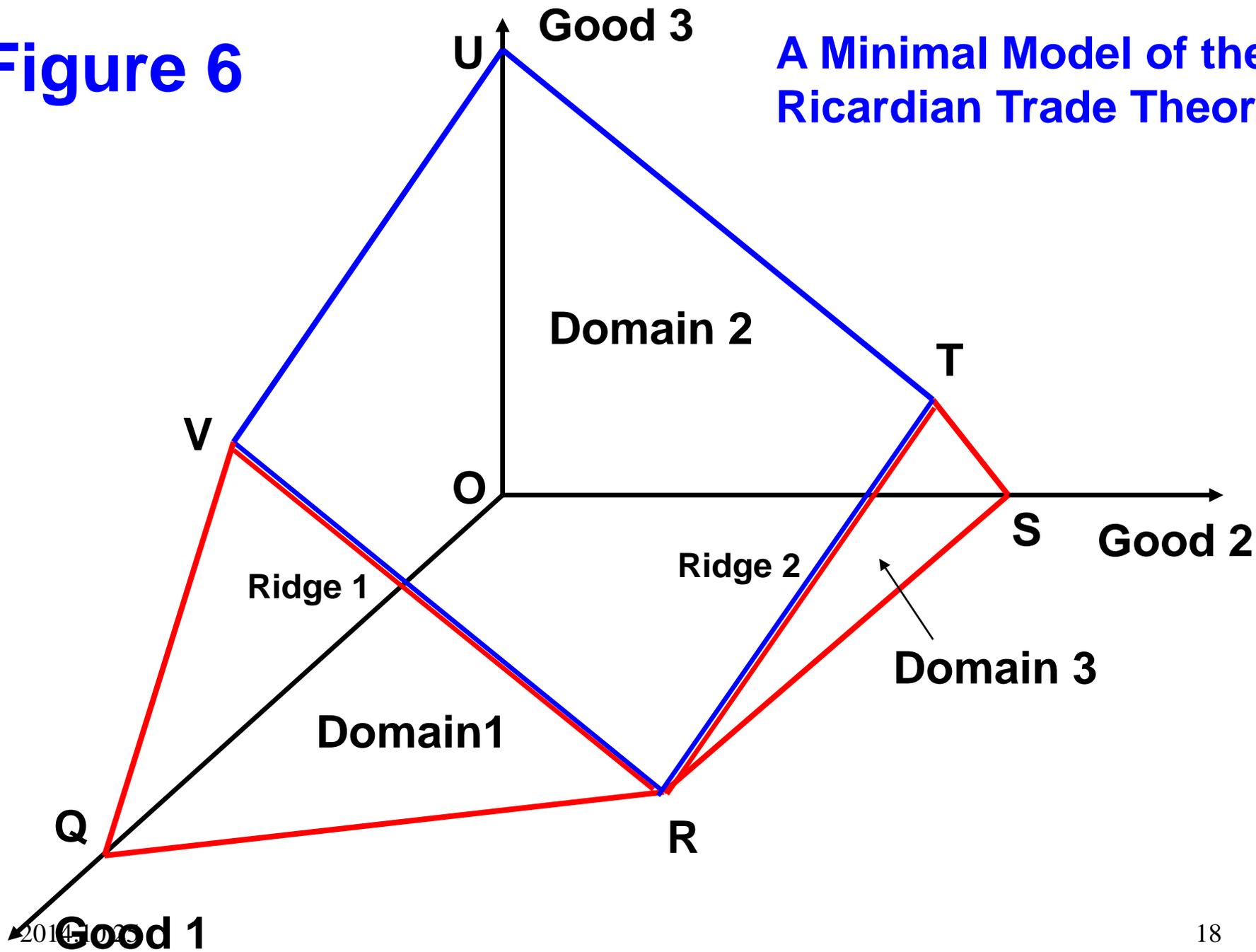
Good 2

# Figure 1



# Figure 6

## A Minimal Model of the Ricardian Trade Theory



# New theory of international values

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- Formal formulation: Shiozawa (2014)
  - Research works from 1985 to EIER (2007)
- Applicable to situations
  - M-country, N-commodity
  - Material inputs
  - Choice of techniques
  - Input trade (intermediate goods)
  - Transport costs

# Fundamental Theorem

- Suppose a Ricardo-Sraffa trade economy  $(L, A, l; \mathbf{q})$ . If the world final demand  $\mathbf{d}$  is in a regular domain,  $\exists_1 \mathbf{v} = (\mathbf{w}, \mathbf{p})$  (up to scalar multiplication) and  $\mathbf{s}$  such that
  - (1)  $\mathbf{s} (I - A) = \mathbf{d}$  (supply & demand equality)
  - (2)  $\mathbf{s} L = \mathbf{q}$  (labor is fully utilized)
  - (3)  $L \mathbf{w} + A \mathbf{p} \geq \mathbf{p}$  (profitability)
  - (4)  $\langle \mathbf{q}, \mathbf{w} \rangle = \langle \mathbf{d}, \mathbf{p} \rangle$  (income circulation)

# Some results of the theory

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- Constant values in a regular domain
- National wage differentials explained
- Provides a tool to analyze
  - Intra-industry trade ← many commodities
  - Firm level differences ← choice of techniques
  - Fragmentation, Global sourcing ← input trade
  - Processing trade(加工貿易) ← input trade
  - Handicapped competition ← wage rate

## § 3. Neoclassical revolution

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- My contention: Mill's “solution” paved the way to neoclassical revolution
- Main point: why did economics turn from economics of production to economics of exchange.

# How did the neoclassical revolution happen?

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- The neoclassical revolution (1870's)
  - utility revolution?
  - marginal revolution?
  - conversion from the economics of production to the economics of exchange
- Why did this conversion occur?
  - many explanations
  - externalist vs. internalist

# An internalist explanation

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## ● Intellectual Situation after Ricardo

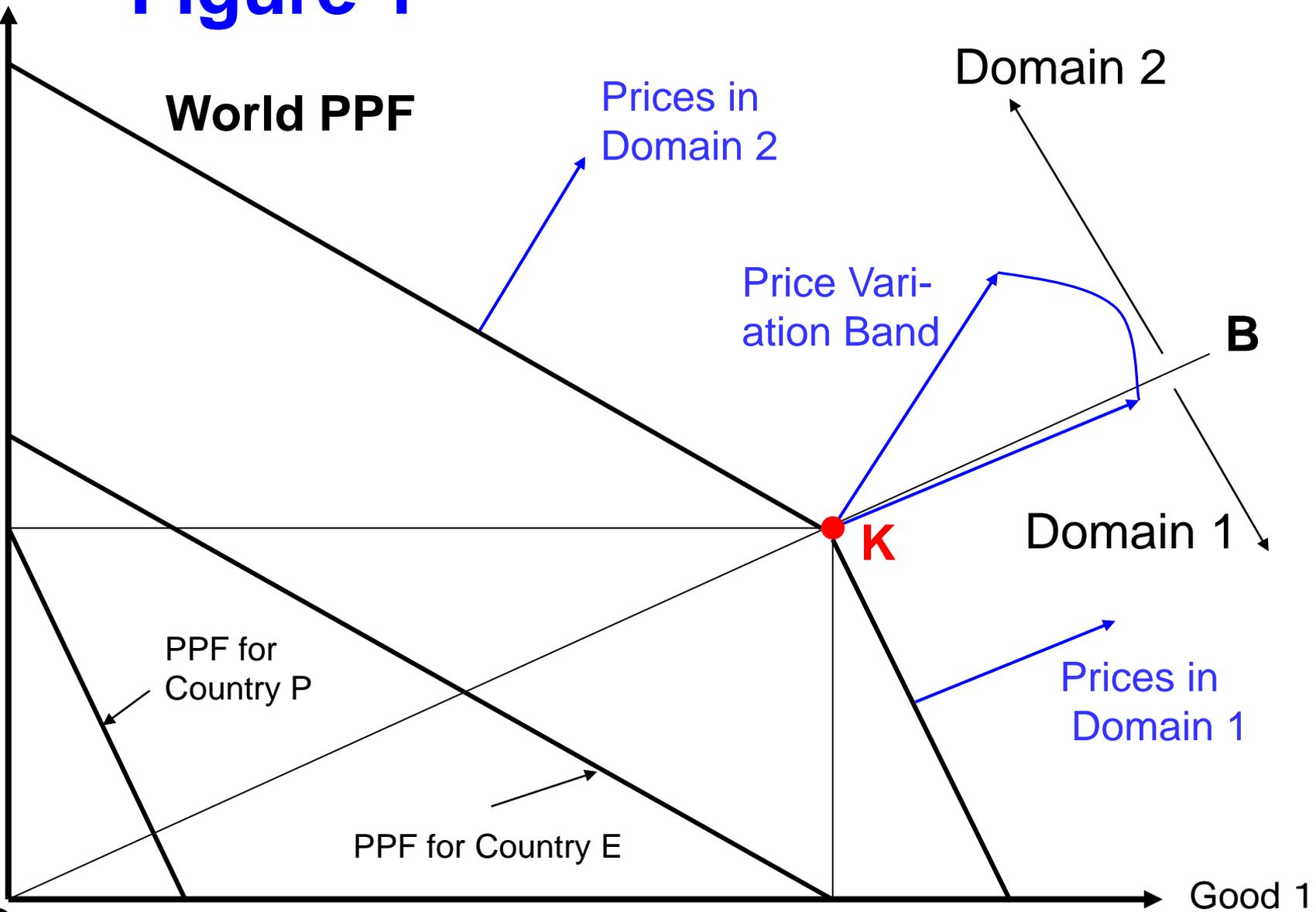
- Two weak points for classical theory of value
- Logical weakness of labor theory of value
  - ➔ 1st Rectification Problem I
- Lack of international value theory
  - ➔ 2<sup>nd</sup> Rectification Problem

## ● J.S. Mill thought succeeded, but...

- It was a false solution. Why? I will explain.
- Its impacts was strong. Changed economics.

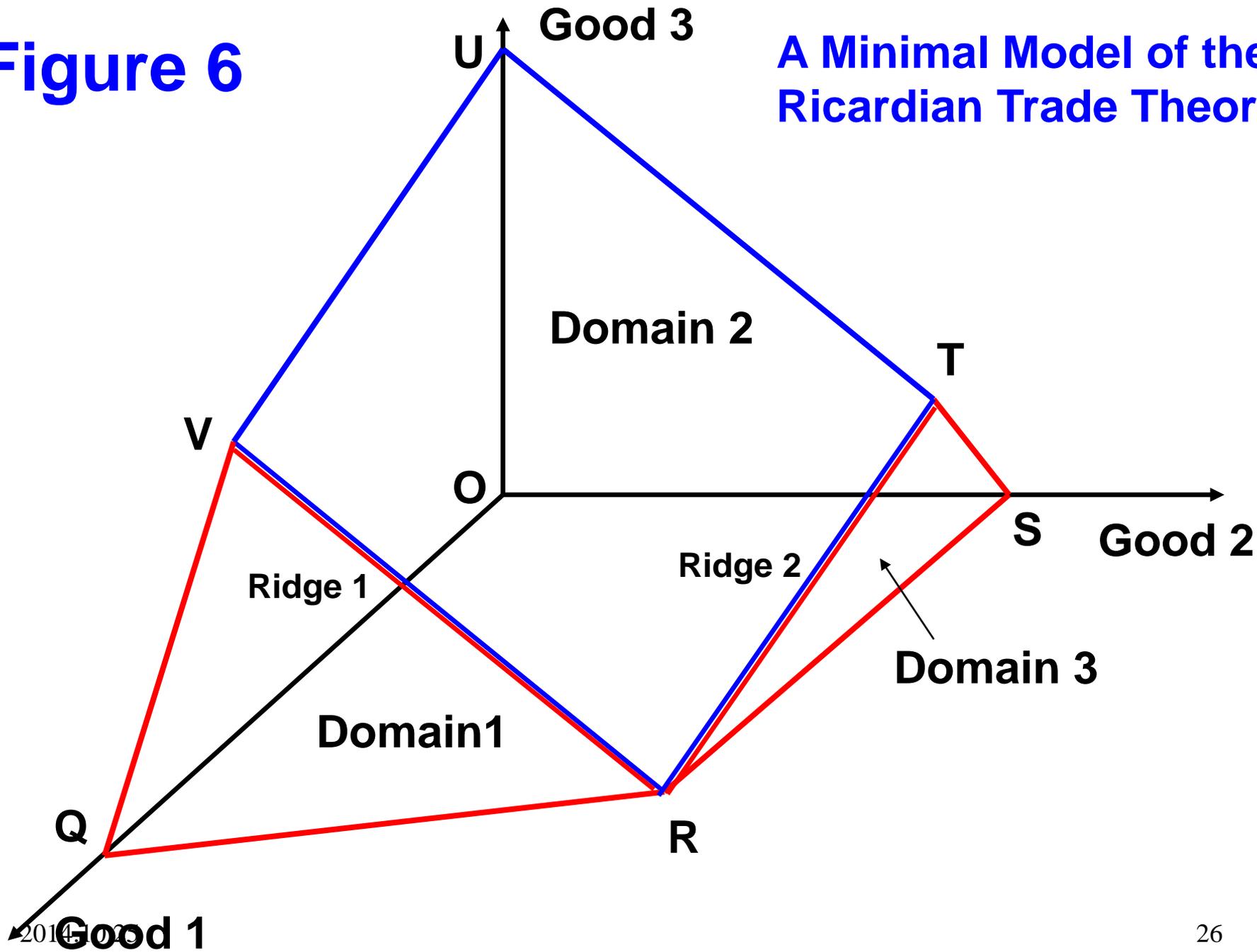
Good 2

# Figure 1



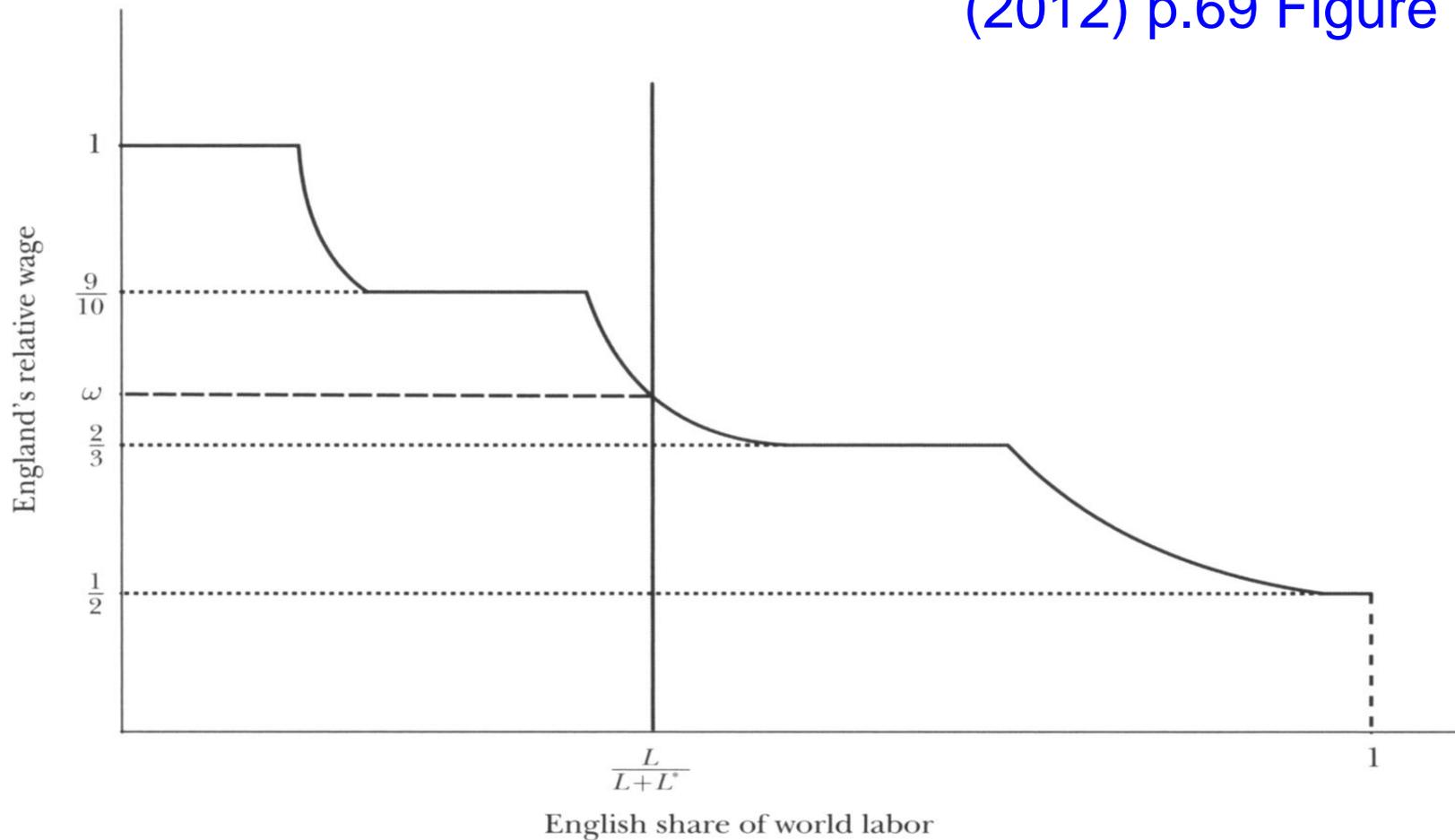
# Figure 6

## A Minimal Model of the Ricardian Trade Theory



# Wage determination in Many goods Model

Eaton and Kortum  
(2012) p.69 Figure 1.



# No price adjustment

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- What happens on a point of a ridge?
  - Price moves but its movement is perpendicular to the ridge. The production remains constant.
- Pure exchange economy
  - Production is given. Preferences may change prices. Distribution (in real income) changes.
- This is only a variant John S. Mill had set.

# Why is Mill's “solution” misleading?

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- Extreme point

- M-country, N-commodity model
- Consider the case  $M > N$ .
  - ◆ No internal edge (positive extreme point)
  - ◆ Mill-Jones point exists only when  $M \leq N$ .

- No price adjustment (see above).

- Essentially an exchange economy

- Quantities and items produced are fixed.
- Given endowments, fix prices!

# Impacts of Mill's “solution”

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## ● Impact on Mill's economics

- admitted laws of demand and supply as “anterior” and “more fundamental” than the cost of production
- half way to neoclassical economics

## ● Impact on neoclassical fathers

- Jevons, Marshall, and Edgeworth
- Works in trade theory, works in value theory

## ● Paved way to the neoclassical revolution

- conversion from e. of production to e. of exchange

# Neoclassical fathers (in GB):

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## ● Jevons:

- Apparently hostile to J.S. Mill
- Exchange problem, the concept “trading body”

## ● Marshall:

- witnesses that he studied Mill’s problem 1870’s.
- “reciprocal demand” and “demand function”
- Marshallian cross emerged in the s. of the “*Pure theory of Foreign Trade.*”(1879)

## ● Edgeworth:

- Box diagram, pure exchange problem

# § 4. Neoclassical vs. classical

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- crucial difference between neoclassical theory of value and classical theory of value
- fallacy of the law of demand and supply

# Law of Demand and supply

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## ● Mill's conclusion:

- Since cost of production here fails us, we must revert to a law of value anterior to cost of production, and more fundamental, the law of demand and supply. (*Principles* III.16.5, Similar expression in Mill (1844))
- This is what Ricardo rejected (*Principles* Chap. 30).

## ● Crucial opposition:

- J: Final utility determines demand.
- CE: At the natural price (or value) supply is adjusted to the amount of demand. Quantity of the demand does not determine the price.

# Adjustment: price vs. quantity

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- N.E. focused on price adjustment.
- C.E. focused on quantity adjustment.
- Classical theory today must explain:
  - why some commodities are more prone to be price adjusted.
  - how the quantity adjustment can evolve with myopic agents?
  - See our book: Shiozawa and Aruka (2014).

# A Remark: not a long term theory

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- Kurz and Salvatori emphasize that classical theory of value is a long term theory.
- It is but we need short term theory also. Necessary to construct a short term theory on the classical tradition.
- Markup pricing is important, for it determines actual price of a commodity.

# § 5. Tasks for challenge

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- I only illustrate two examples:
  - Construct and develop a classical theory of value
  - Keynes's idea on the basis of classical theory of value

# Classical theory of value in the future

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- There are at least two domains where new theories are required:
  - theory of wages
  - price theory in financial economy

# Labor market and wages

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- The cost of production theory of value does not hold.
- If labor force is uniform and freely movable, the classical theory holds.
- How about in other cases?

# Financial economy

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- Distinction between *real economy* and *financial economy* is important.
- In financial economy, the cost concept is vague. Cost of production theory of value does not apply directly.
- Law of demand and supply?
  - It partly explains the movement of prices.
  - Systemic instabilities are built in.
- Must study speculation and mutual interactions.

# Effective demand on the basis of classical theory of value

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- Keynes' idea of effective demand is still valid.
- It cannot be well defined in the framework of GET.
- An open possibility is to reconstruct Keynes' idea on the basis of the classical theory of value.

## § 6. Conclusion

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- Ricardo left two problems and they are resolved in 20<sup>th</sup> and 21<sup>st</sup> century.
- It can be now a full titled rival to the neoclassical theory (or GET).
- Classical theory of value is still developing. A new challenge is waiting for you.

# Correspondence:

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- For the details, read my paper prepared for this session.
- Two books in Japanese:
  - My *Final solution of Ricardo's problem on international values* 2014 リカード貿易理論の最終解決
  - Our *Reconstruction Economics* 2014 経済学を再建する
- Mail to: [y@shiozawa.net](mailto:y@shiozawa.net)