

Japan Society of Political Economy Annual Conference 2014
at Hannan University

The Revival of Classical Theory of Values

Yoshinori SHIOZAWA
professor emeritus, Osaka City University

Contents

1. Introduction
2. Classical theory of value
3. Neoclassical revolution
4. Neoclassical vs. Classical
5. Further challenges
6. Conclusion

§ 1. Introduction

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

The Themes of the Conference

- 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:

- 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?

- 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:

● 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:

● 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

- 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

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

Ricardo's two problems left

- 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:

- 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

- 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

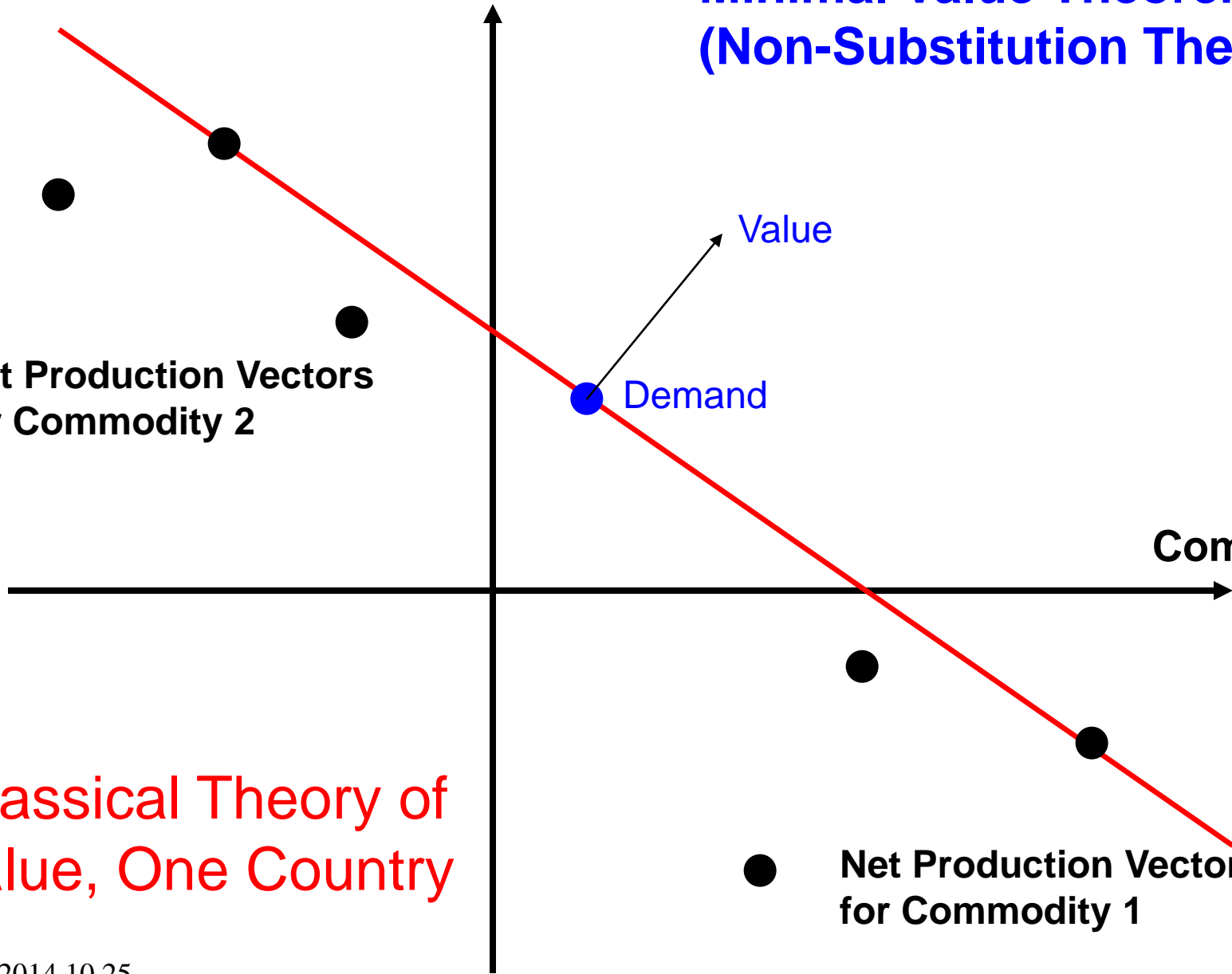
Value

Demand

Commodity 1

Classical Theory of
Value, One Country

Net Production Vectors
for Commodity 1



Ricardo problem II

- 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”

● 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

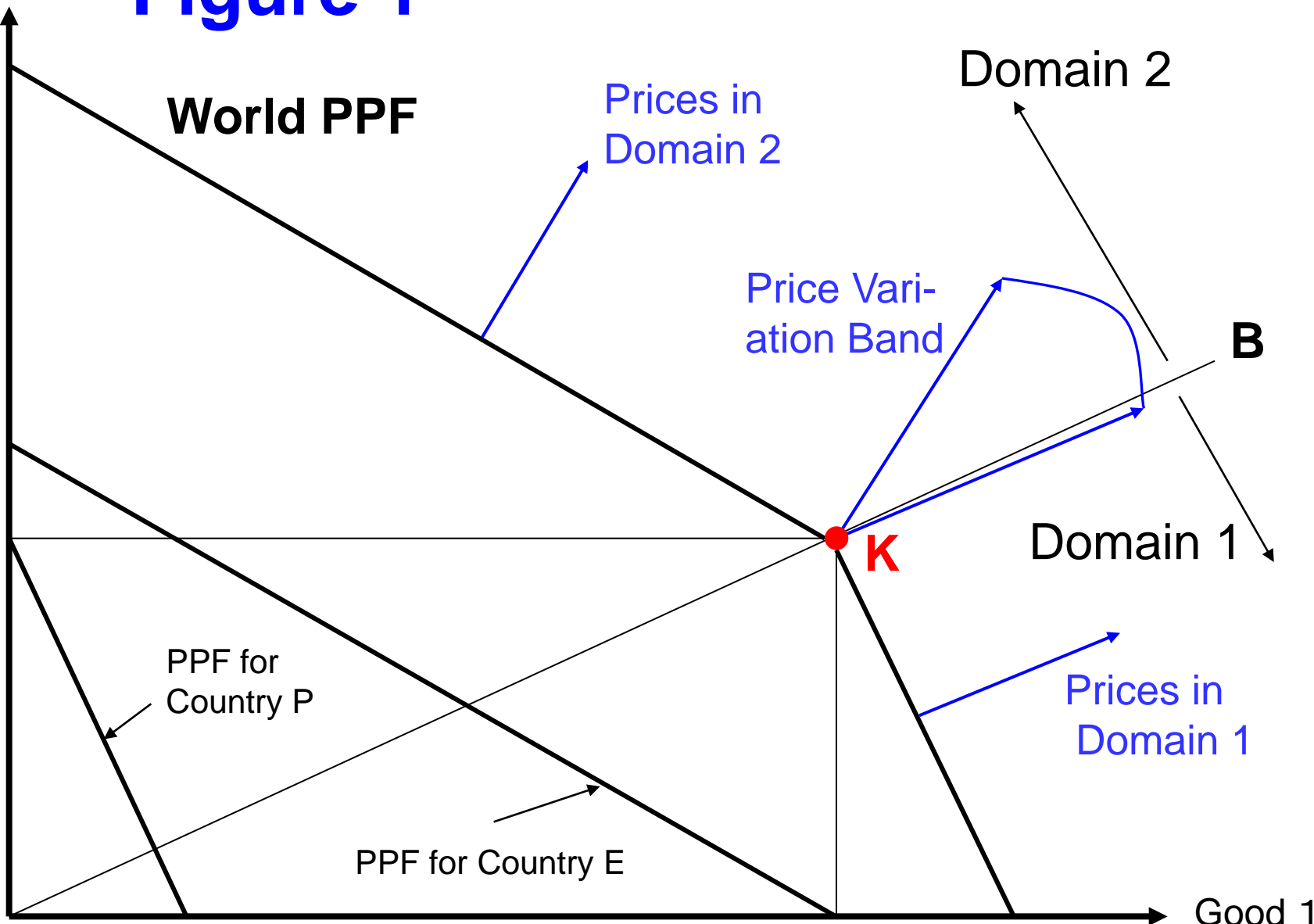
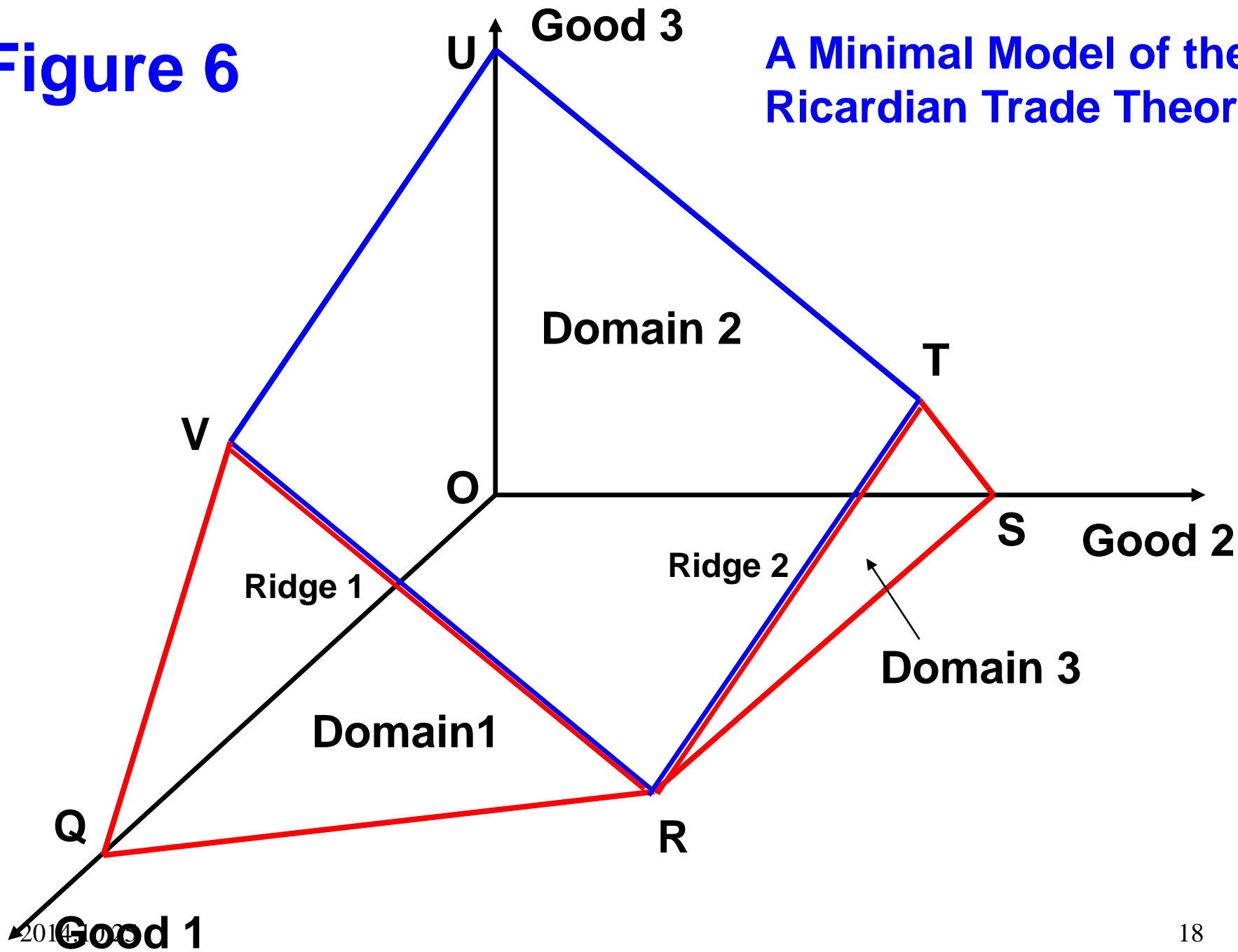


Figure 6

A Minimal Model of the Ricardian Trade Theory



New theory of international values

- 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

- 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

- 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?

- 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

● 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
 - ➔ 2nd 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

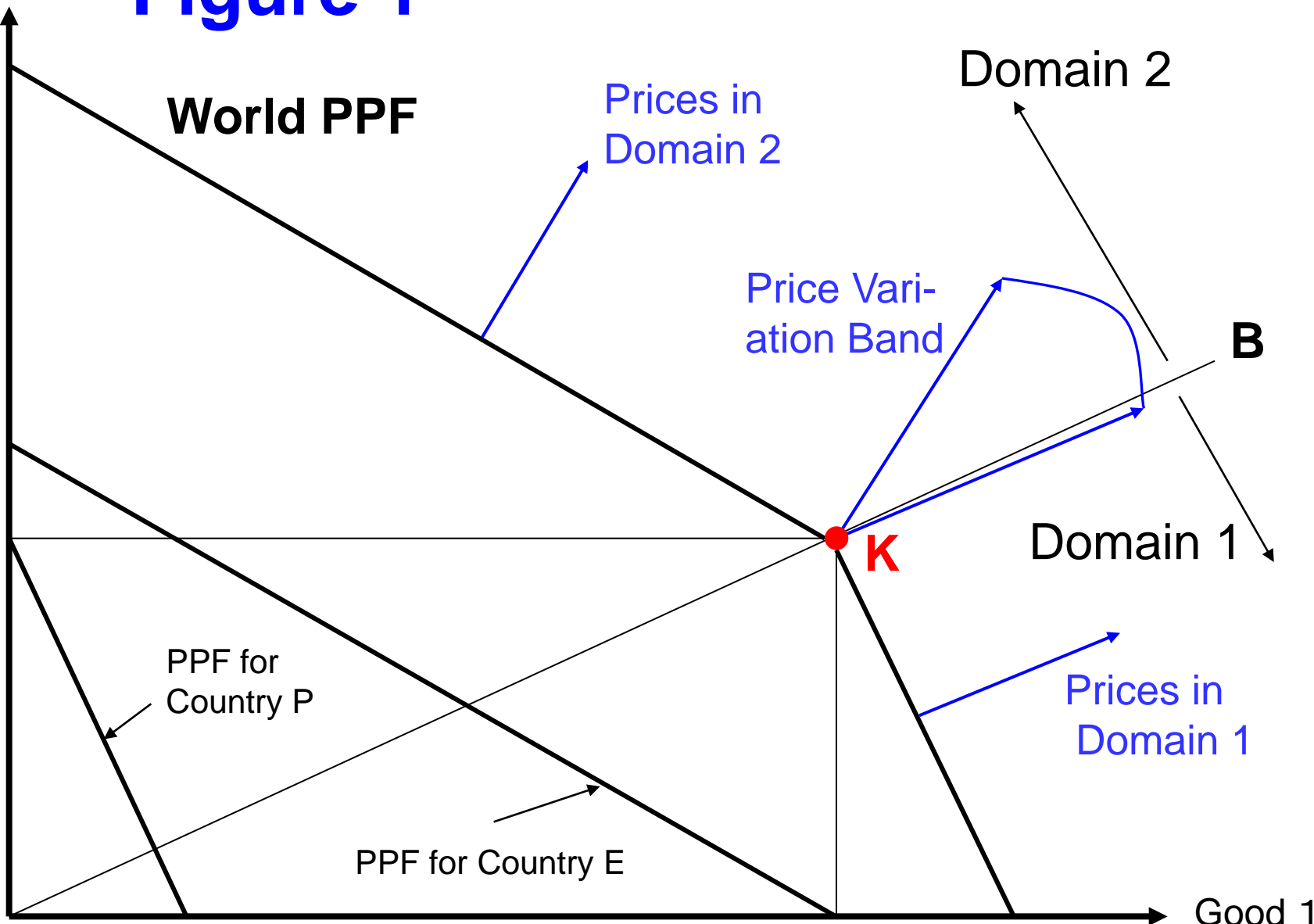
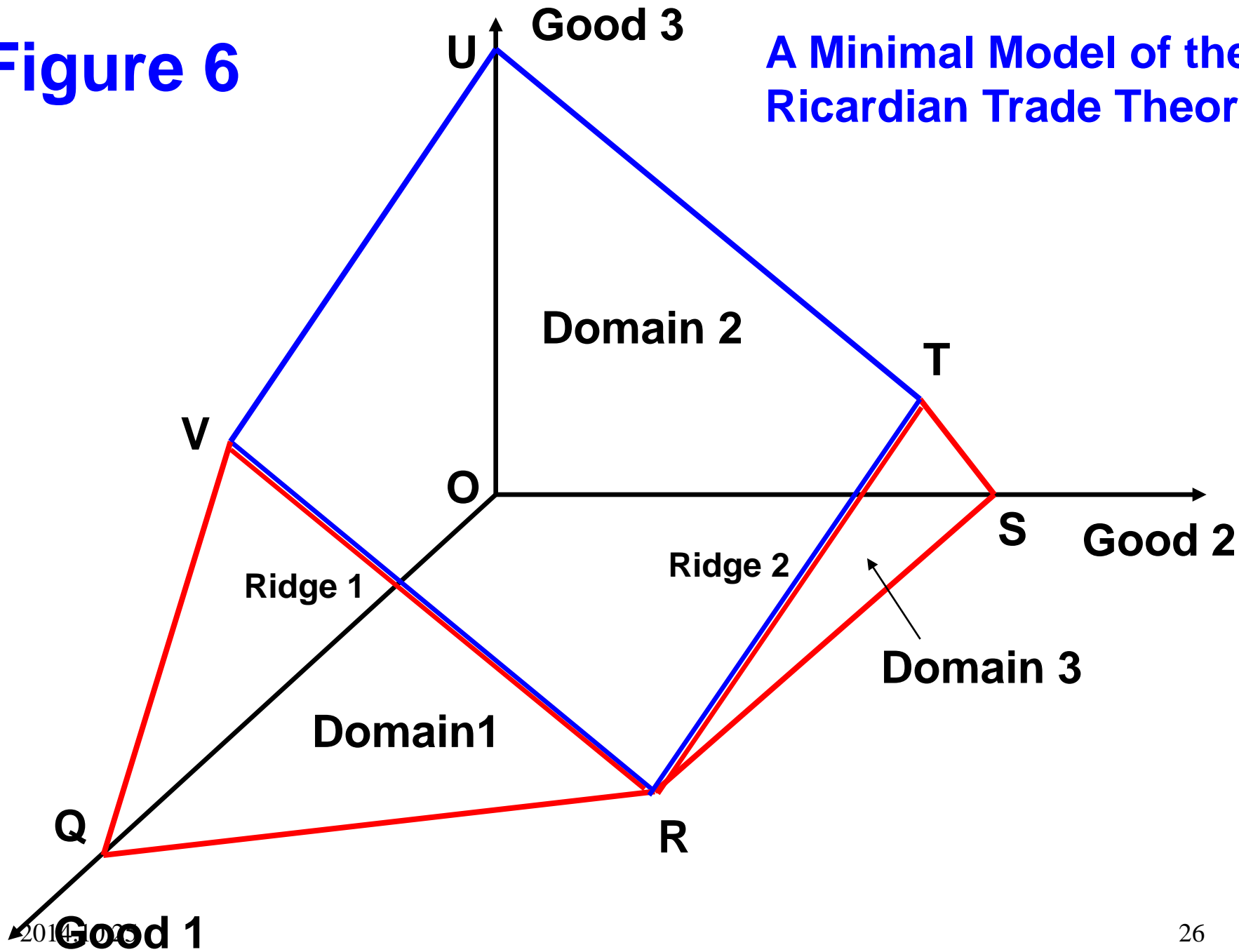


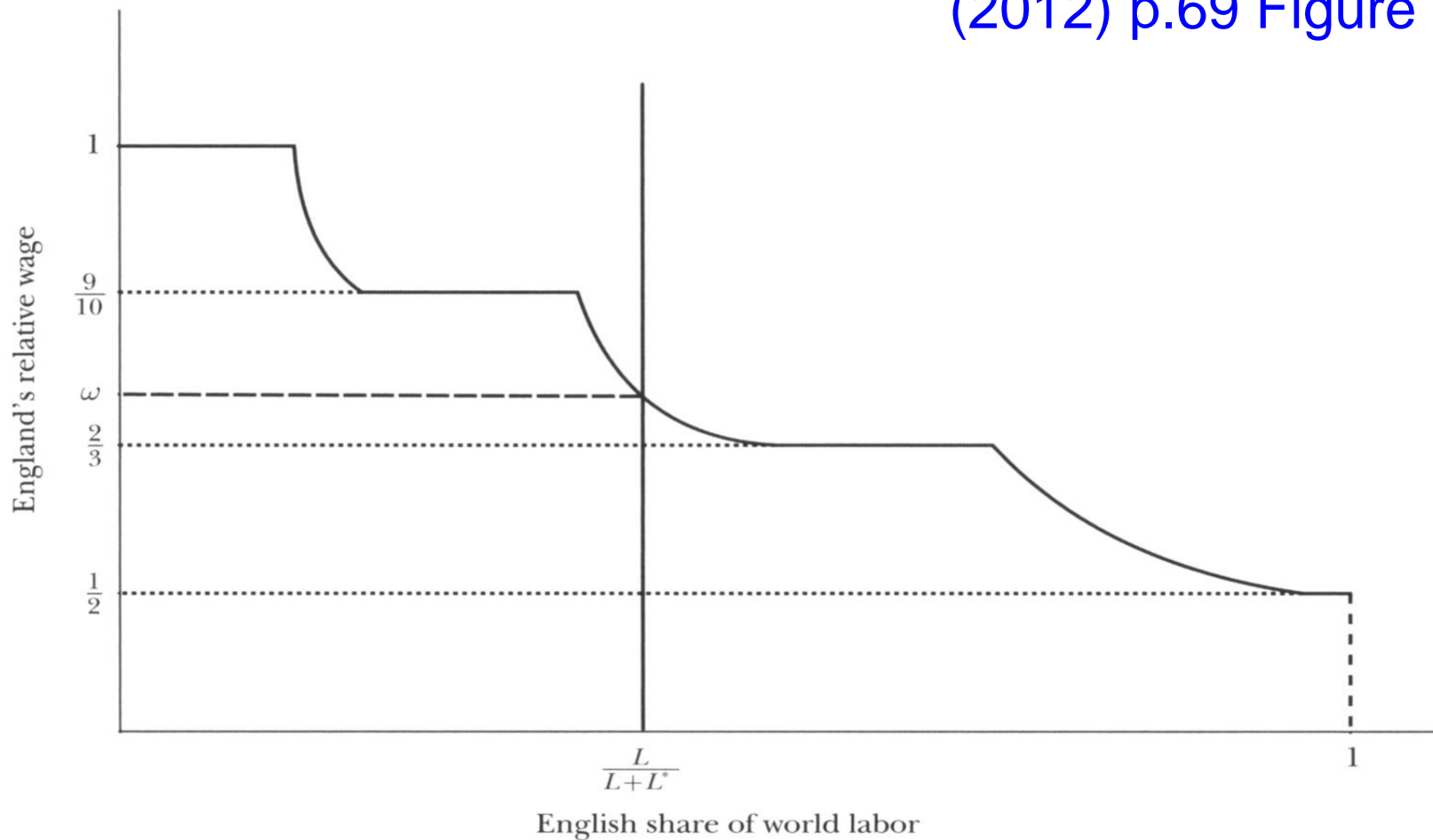
Figure 6

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

- 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?

- 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”

● 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):

● 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

- 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

● 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

- 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

- 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

- 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

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

Labor market and wages

- 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

- 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

- 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

- Ricardo left two problems and they are resolved in 20th and 21st 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:

- 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