Why the labour theory of value is right

Science and evidence

W P Cockshott

Scientific socialism

Socialism can only succeed politically and economically if it is based on a sound scientific theory.

This applies not only to understanding present society, but also to understanding the laws which will govern future society.

It was this conviction that led Marx to devote years of his life to uncovering the 'Laws of Motion' of capitalism.

Understanding exploitation

He wanted to show the underlying basis for class division.

On the basis of that he wanted to show the limitations of reforms that did not change the fundamental structure of the society.

The key to his analysis was the labour theory of value.

Outline

- What is the labour theory of value
- Why it is important in understanding exploitation
- How was it attacked
  - Subjective theory
  - Transformation problem
- What is the evidence for it
- What is the causal mechanism
- Answering new objections

What it says

1. The average *price* of a good will be proportional to the average amount of *labour* used to make it.
2. The *value added* in an industry will thus be roughly proportional to the *labour* it uses.
3. *Price* quantities are thus the indirect representation of underlying quantities of human *time*.

Labour and profit

The labour theory of value was developed by Adam Smith in the late 1700s and refined by David Ricardo in the early 1800s.

By the 1820s the theory was being used by socialists like Thompson and Gray to argue that since labour was the source of value, profits and rent were nothing but exploitation.

These critiques were further refined and popularised by a German emigre Dr Marx in the 1860s.

Reception

The labour theory of value had been almost universally accepted in the early 19th century but by the mid century it was being criticised since it was seen as being politically risky.

By the late 19th century only socialists still supported it, whereas most orthodox economists had moved to marginalist and subjectivist theories.

These remain the orthodoxy in schools of economics to this day.

Lines of conservative attack

- Prices represent different subjective valuations
- Supply and demand curves determine prices
- Labour theory of value inconsistent due to the 'transformation problem'
    - This attack was pushed by Samuelson whose textbook was the most widely used introductory economics book in the US

Scientific principles

A scientific theory must make predictions that can be put to observational test.

If it makes no predictions it is meaningless. If it can not be tested it is not scientific.

If it is testable, and if its predictions are born out by observation, then it should be accepted.

What about the Labour theory of Value?

How we test it

To verify it you need information on the money value of output of lots of industries and the labour content of the outputs of these industries.

If the money value is closely correlated with the labour content then the predictions of the labour theory of value are confirmed.

IO tables

We can obtain the necessary information from what are called Input Output tables for the economy.

All governments in the developed world publish such tables for their country.

In what follows there is an example table.

UK IO Table

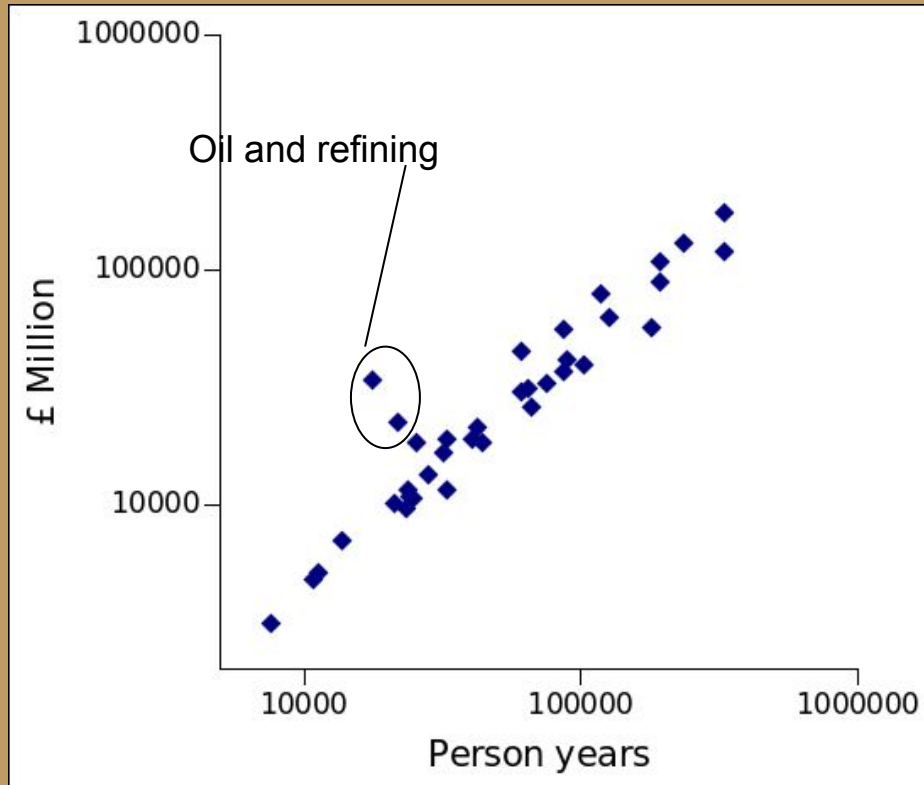# Output money value is closely correlated to labour input

Chart shows the direct and indirect labour input of 40 UK industries as against the money value of their outputs

The exceptions to the trend are the oil industry which earns super profits explained by the Ricardian theory of rent.

Results obtained from UK io table using the program labourValuation available from https://drive.google.com/drive/folders/1CBkWwqdO1OT0y2kcZ04JI45oulgt-Pn6?usp=sharing

Results for other countries

Country	year	number of industries	price/labour correlation
Japan	1995	85	98.6%
Sweden	2000	48	96.0%
USA	1987	47	97.1%
Greece	1970	35	94.2%
UK	1984	101	95.5%
Germany	1995	33	96.5%
France	1995	37	97.6%

Zachariah, D. (2006) 'Labour value and equalisation of profit rates', Indian Development Review 4(1): 1–21.

Transformation problem and beyond

Paul Cockshott

Transformation Problem

Ricardo had not only assumed that labour content determined prices, but also claimed that the rate of profit in all industries will tend to equalise.

But if profit comes from labour, then labour intensive industries should have a higher rate of profit, contradicting Ricardo's second assumption.

By the mid 19th century this was seen as a serious flaw of Ricardo's theory and helped to discredit it.

Transformation problem

Marx claimed to have arrived at a procedure to transform labour values into profit rate equalising prices.

Marx's procedure had, prima facie, a logical flaw which led to it being ridiculed by orthodox economists.

Samuelson went so far as to say that in order to transform labour values to prices all you needed to do was take an eraser and rub out all reference to labour from Marx's argument.

Empirical test

Until the 1990s nobody tested to see whether profit equalising prices or labour values were closer to real world prices.

Once people started looking at the figures it became clear that profit equalising prices (Ricardo's Natural Prices, Marx's Production Prices) are *not* better than labour values in predicting real prices.

Zachariah's multi-country multi-year study shows that sometimes labour values and sometimes production prices are better.

High C/v means low profit

In fact if an industry has a high capital to labour ratio, it will have a low rate of profit.

This is exactly what the labour theory of value predicts.

Modern pro-capitalist economists can not explain this phenomenon. Only the labour theory of value can.
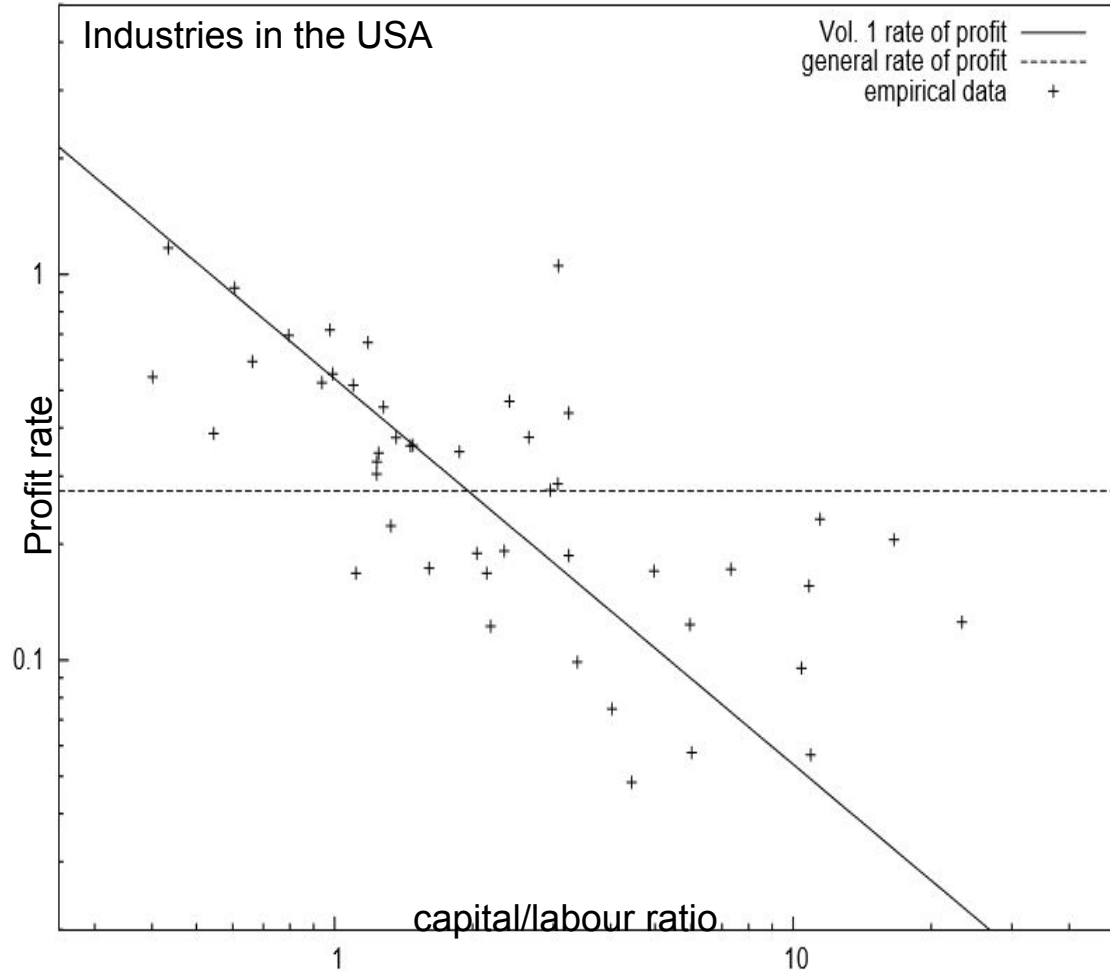
The cause

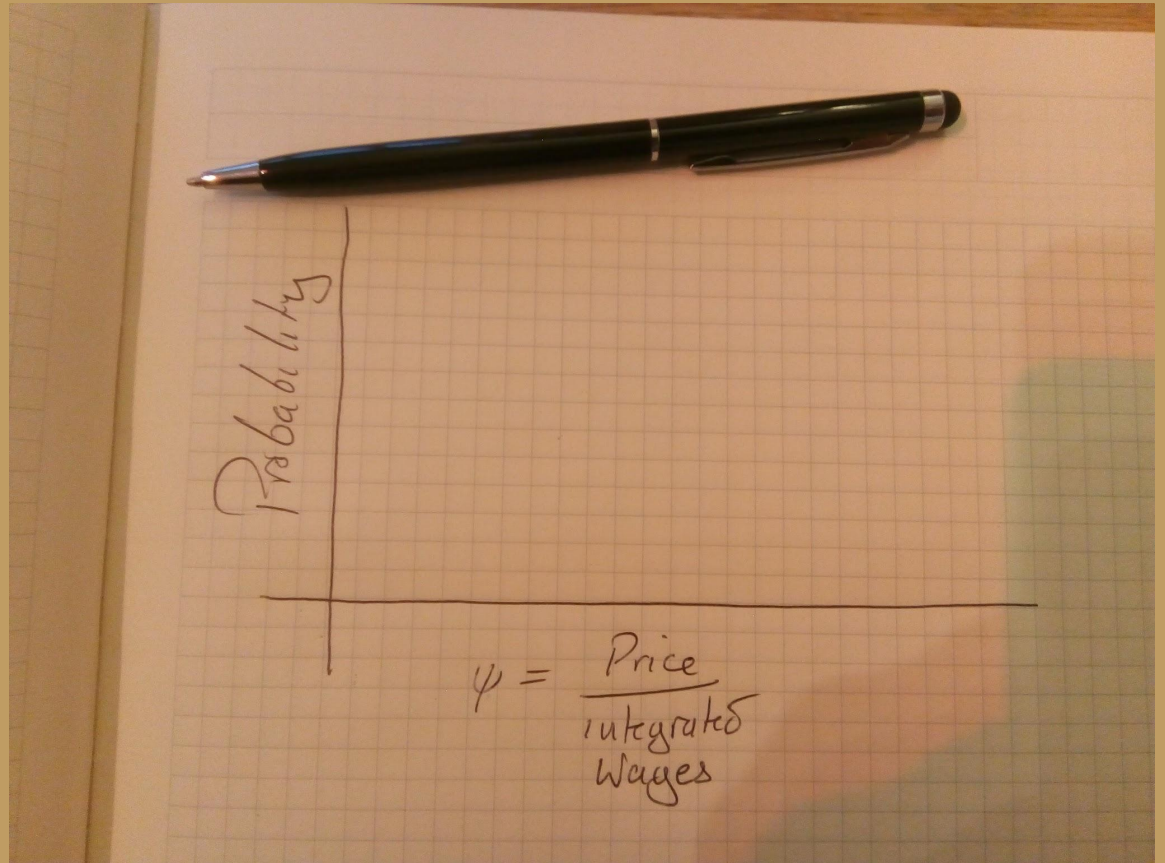Econometric studies have shown that the labour theory of value is empirically true.

There remains the problem of explaining *why* it is true.

The answer came from applying the methods of statistical mechanics to the problem. (Laws of Chaos, Farjoun and Machover)
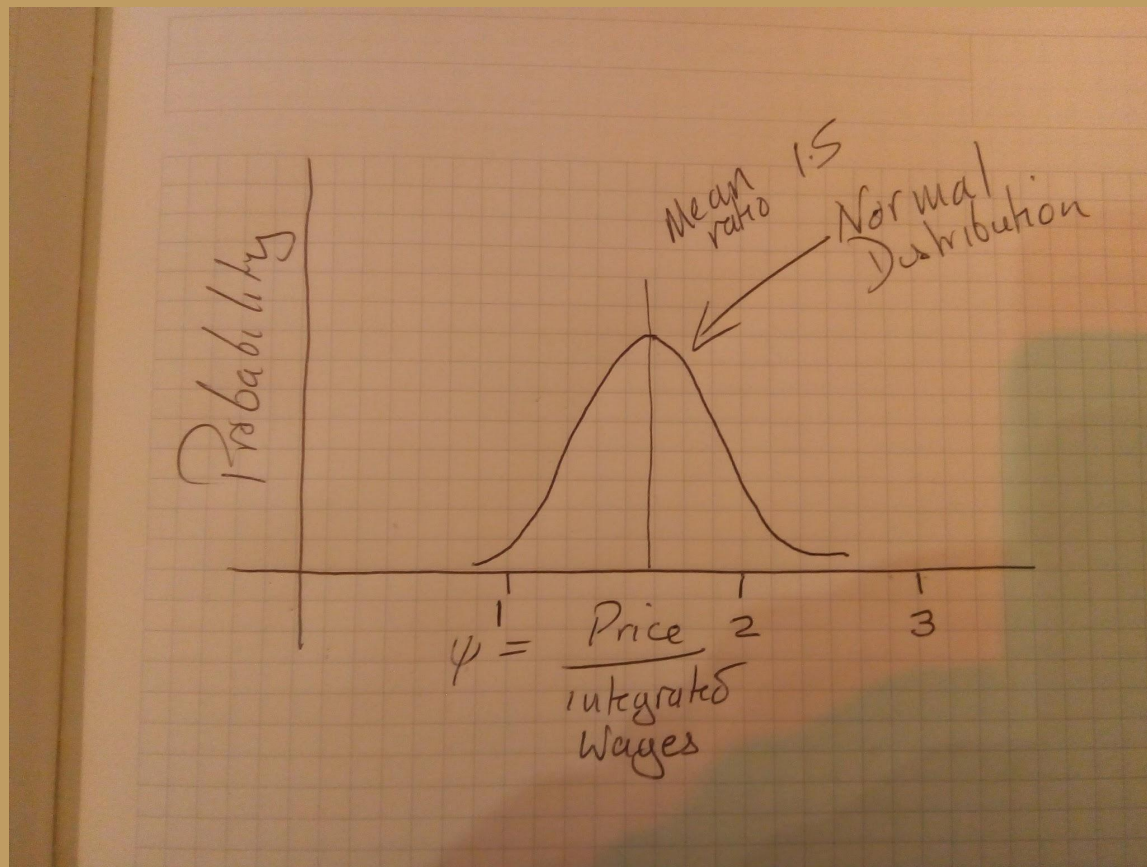
Farjoun and Machover's theory
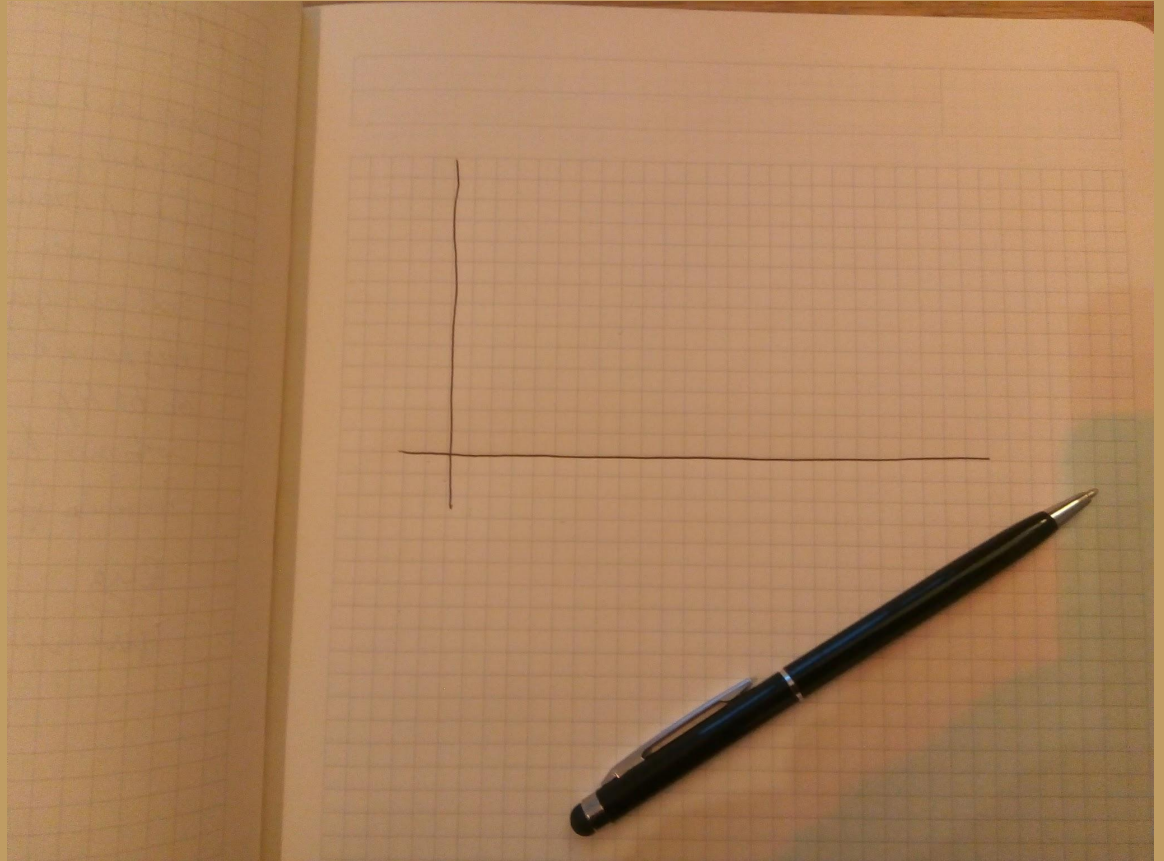
Their theory is probability based

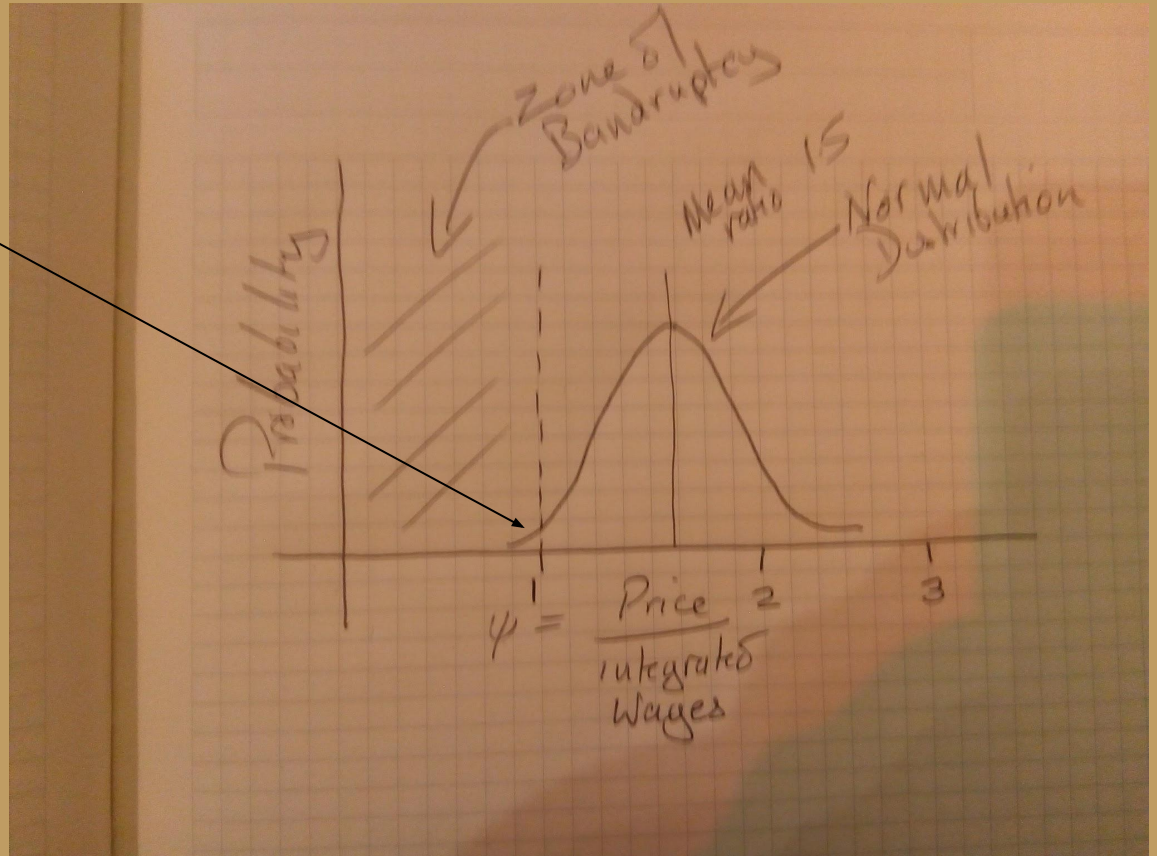# Depends on the normal distribution

Price to integrated wage ratio Ψ will be normally distributed as it is the sum of many independent causes.
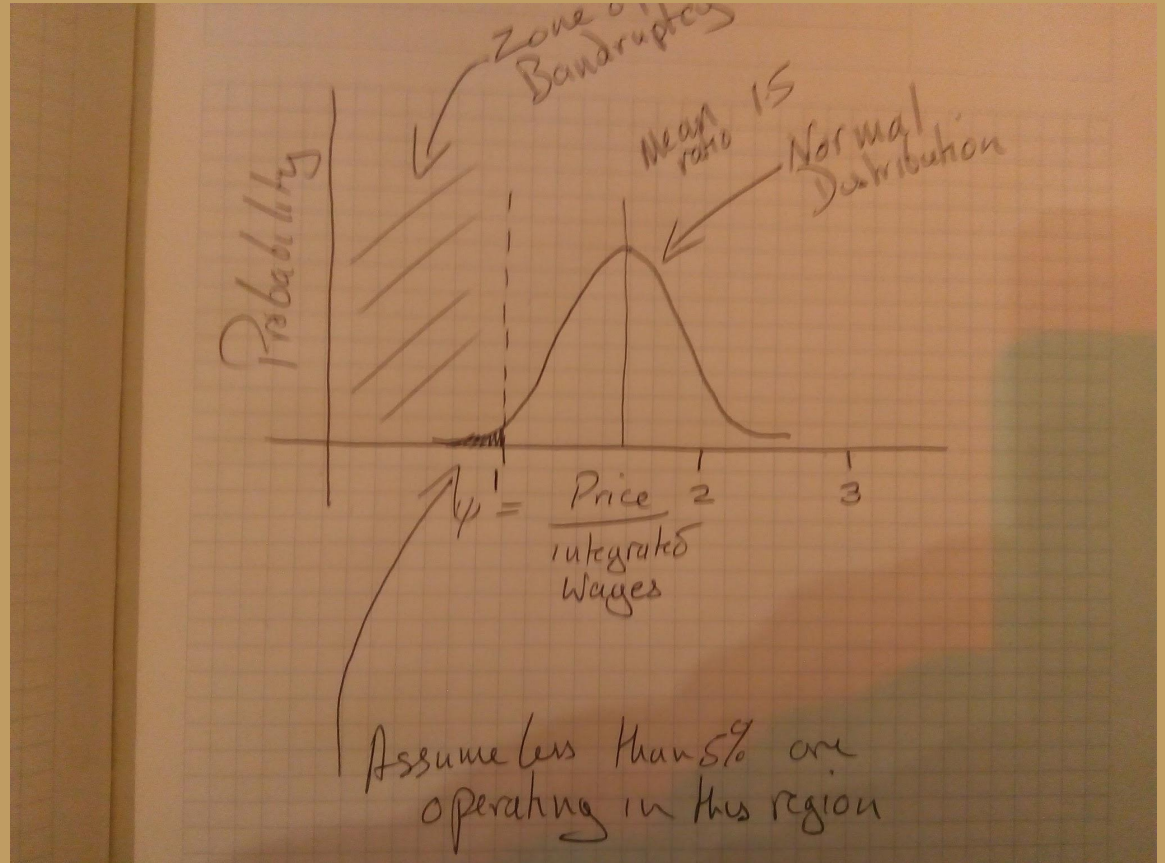The mean of 1.5 is about what we found for the UK

Bankruptcy zone

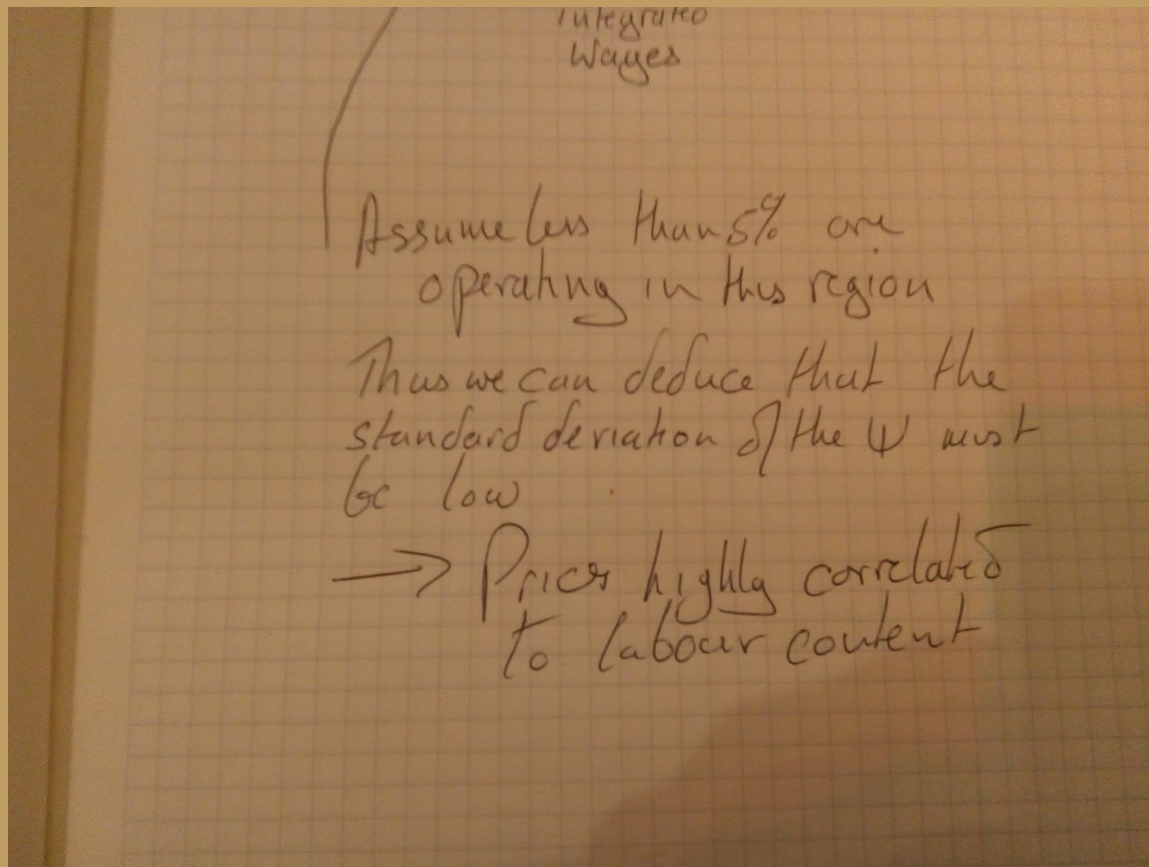Any firm whose price/wage ratio is less than 1 will be trading at a loss and cease to exist.

Only a small % of firms are going bankrupt

In the pen and ink diagram I assume 2 standard deviations between 1 and the mean, Farjoun and Machover assume 3 standard deviations between 1 and the mean.
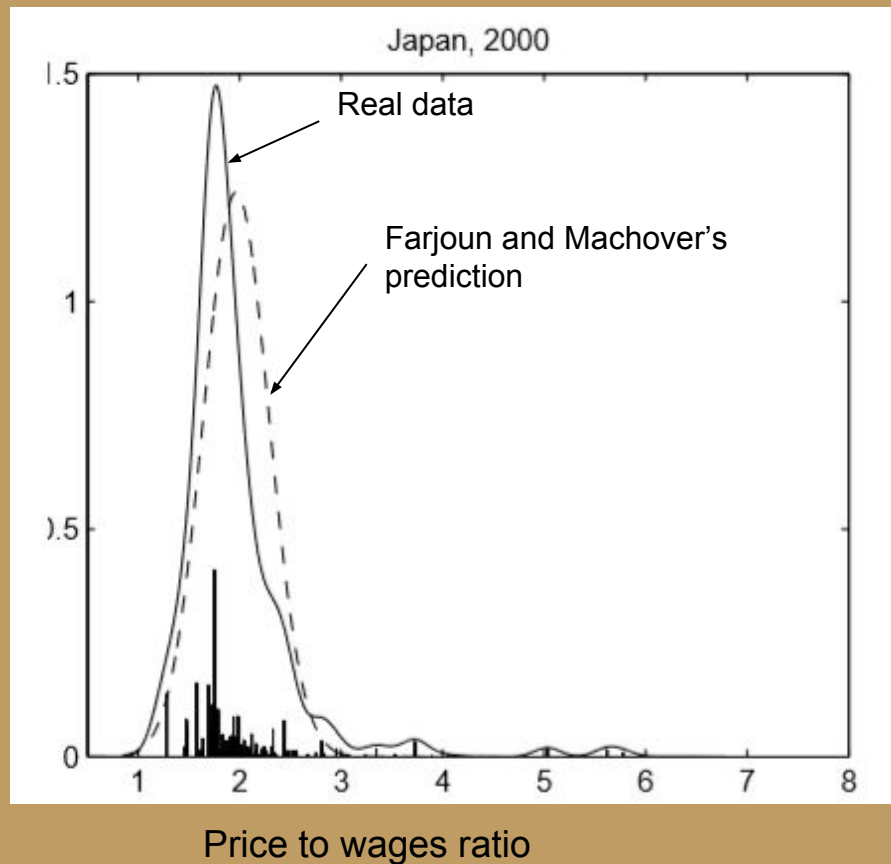
From this we can deduce the correlation

Real data for Japan

Real data for Japan, computed by Zachariah, shows almost exactly the pattern predicted by Farjoun and Machover.

Similar patterns have been shown for all the OECD economies.

Price to wages ratio

Example of modern Marxist Science

- Uses methods derived from physics and statistics
- Makes prior quantitative predictions
- Allows empirical testing
- Verified by the tests

Lessons

The basic hypothesis of the labour theory of value is strongly born out.

The value of output of an industry is >95% determined by the direct and indirect labour used to produce that output.

Thus the old argument of socialist economists from Gray to Marx, that profit is based on exploitation is justified.

Labour theory of value should be the basis of all socialist economics.