Theory and Measurement: How do Recent Developments in Value Theory Help?

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1 Notation:

$MVA$ is value added in terms of money

$LVA$ is value added in terms of hours

$VM$ is the value of money

$H_p$ and $H_u$ are total hours worked by productive and unproductive labour

$w_p$ is the hourly wage rate paid to productive labour

$VLP$ is the value of labour-power

$W_p$ and $W_u$ are total wages paid to productive and unproductive labour
$MSV$ is money surplus value

$\Pi$ is total profit

$V_h$ is variable capital in terms of hours

$S_h$ is surplus value in terms of hours

$C_{\mathcal{L}}$ is constant capital in terms of money

$C_h$ is constant capital in terms of hours

$RMVA$ is $MVA$ in real terms

$p$ is the general price level (e.g. the $NDP$ deflator)

Hours are to be understood throughout as denoting hours of abstract labour, measured in units of socially necessary labour time.
2  First fundamental relation

2.1  Motivation

Production alters or transforms existing use-values, and creates new ones.

Labour time in production is the source of all value.

A unit of money is the way in which society measures value when it is separated from particular commodities via exchange.

In the aggregate, value added in money \( (MVA) \) and value added in hours \( (LVA \equiv H_p) \) are two expressions for the same thing.

In this sense, money represents and measures social labour-time.
2.2 Specification

\[ VM = \frac{LVA}{MVA} = \frac{H_p}{MVA} \]

where

\[ MVA = W_p + W_u + II \]

and

\[ H_p = V_h + S_h \]
2.3 Corollaries

Equivalence between LVA and MVA exists only in the aggregate across all produced commodities.

In general no such relation holds for individual commodities, because of different compositions of capital (value ratios of nonlabour to labour inputs) in their production.

In the absence of such equivalence, “unequal exchange” is the norm.
3 Second fundamental relation

3.1 Motivation

Labour power is not a produced commodity.

Hence it has no relative form of value; only an equivalent form.

What is it?

Only 2 possibilities:

1. the wage $w$ for which labour power exchanges

2. the value of the bundle of wage-goods which the wage purchases (provided all the wage is spent).
3.1.1 Special case: equivalent exchange

The VLP is indifferently measured by

- the wage for which it is sold (multiplied by $VM$)

and

- the value of bundle of wage-goods, provided all of the wage is spent (cf. Capital, volume I, ch. 6)
3.1.2 General case: nonequivalent or unequal exchange

Consider the bundle of wage goods.

Each is produced with a different composition of capital.

Hence each sells at a price different from its money-value.

There is an unequal exchange of value between the wage (multiplied by $V_M$) and the goods purchased by the wage.

Hence the equivalent of the $V LP$ cannot both be the wage and the bundle of wage goods.

But there is no reason to suppose there is an unequal exchange when labour power is sold for a wage, because labour-power is not a produced commodity, so that composition of capital considerations do not apply.

So the equivalent form of the $V LP$ can only be the wage.
3.2 Specification

The $VLP$ per hour of labour hired is the labour-time equivalent of the hourly wage rate paid to productive labour $w_p$.

Or $w_p$ is the $VLP$ in money terms.

\[ VLP = w_p VM \]
3.3 Corollaries

1. The $VLP$ is the share of wages of productive labour in $MVA$:

$$VLP = \frac{W_p}{MVA}$$

2. Aggregate variable capital (in hours) and the aggregate wages of productive labour are equivalent

$$V_h = VLP.H_p = VM.W_p$$

3. In the aggregate, profits plus unproductive wages are the monetary form of surplus value, exactly measuring unpaid labour.

$$S_h = H_p - V_h = VM.(MVA - W_p) = VM.MSV$$

where

$$MSV = MVA - W_p = W_u + \Pi$$

4. The labour theory of value is an aggregative theory about the production of aggregate value and its distribution between classes.
4 Constant capital

4.1 Special case: equivalent exchange

Prices are proportional to values.

So the aggregate sum of money spent on means of production (multiplied by $V M$) is a sum of value which is the same as the sum of the values of the individual means of production purchased.
4.2 General case: nonequivalent or unequal exchange

The labour time equivalent of the money spent on means of production is

\[ C_h = \frac{C_L}{VM} \]

But what is the interpretation of \( C_h \)?

Whether in the individual case or the aggregate,

- it is \textit{not} the labour time historically embodied in the means of production;

- it is \textit{not} the labour time required to produce the means of production with current technology.

So the labour time equivalent of the money value of the means of production is \textit{not} the labour value of those means of production.
Where does this leave the labour theory of value?

1. One approach is to redefine labour value as money value multiplied by $VM$ (e.g. the TSS interpretation). This creates many more problems than it resolves.

2. In the interpretation proposed by Duménil and Foley, there is no difficulty, because there is never any reason to consider the labour value of the means of production, whether individually or in the aggregate. The category $C_{h}$ has no relevance to anything. The only category that is relevant is $C_{f}$.
5 Summary

By construction, the value of money allows us to translate freely between

- $MVA$ and $H_p$
- $W_p$ and $V_h$
- $MSV$ and $S_h$

This is an operationalisable accounting system in terms of money.

The framework is consistent whatever the rate of profit is and whatever prices are.
Any separate accounting system based on embodied labour coefficients is not relevant.

Issues concerned with the labour value of constant capital are not relevant.

Issues concerned with any mapping of labour values into monetary prices, other than the aggregates specified, are not relevant.

“is/are not relevant” means “has/have no meaning”.
6 What do we need to know more about?

6.1 Value of money

\[ VM = \frac{H_p}{MVA} = \frac{1}{p \frac{RMVA}{H_p}} \]

Hence

\[ -\frac{dVM}{dt} = \frac{dp}{dt} \frac{1}{p} + \frac{dRMVA/H_p}{dt} \frac{1}{RMVA/H_p} \]
Figure 1: Components of the annual change in $VM$
USA, 1965-2001

rog productivity
Inflation
6.2 Value of labour power

\[ VLP = w_p VM \]

\[ - \frac{dVLP}{dt} VLP = - \frac{dVM}{dt} VM - \frac{dw_p}{dt} w_p \]

\[ - \frac{dVLP}{dt} VLP = \frac{dRMVA/H_p}{dt} RMVA/H_p - \left( \frac{dw_p}{dt} w_p - \frac{dp}{dt} p \right) \]

More work is required on understanding

1. productivity growth

2. the rate of change of the hourly wage rate

3. the rate of change of prices