Value Transfers and Value Capture in Price-Value Deviations

Empirical Value Analysis of International Exchange

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Value and Imperialism

Value transfers and value capture are economic expressions of imperialism, which is driven by the international dimension of capital accumulation.

- Value transfers express unequal exchange of commodities between industries due to their position in turbulent competition.
- Value captures express differences between value production and realization, through capital exports or non-production industries.

Historical and Recent Contributions

Value Transfers: Ricardo (1970), Marx (1991), Bauer (1907), Grossmann (2021)
Unequal Exchange: Emanuel (1972), Amin (1976), Shaikh (1979)
Price-Value Deviations: Shaikh (1984), Ochoa (1989), Işıkara and Mokre (2021)

Contemporary Debate: Smith (2016), Patnaik and Patnaik (2019), Tsoulfidis and Tsaliki (2019), Carchedi and Roberts (2021), Hickel, Hanbury Lemos and Barbour (2024), Rotta (2025), Nievas and Piketty (2025)

Value Transfers

Value transfers are expressed in the difference between relative direct prices and production prices.

Differences arise from the tendency towards a general profit rate in exchange and persistent wage rate differentials between countries.

> **Example**
>
> Tendentially equalized profit rates increase profit rates over surplus value rates in industries with high organic compositions of capital.

Isolating profit rates and wage rates in production prices allow the identification of **value composition of capital (VCC)** and **rates of surplus value (RSV)** effects in international value transfers.

Non-production Value Capture

Finance and wholesale trade sectors do not produce value, but receive shares of other industries' profits as income. Expressed in production-market price differences.

Example

Profit repatriation increases income over profits for capital exporting firms.

Cross-border business loans are a form of **capital exports**, opposite-direction interest payments capture profits, in national aggregates these express international inequalities.

Note

This definition differs from Rotta (2025)'s, which combines aggregate market-direct price differentials.

Data

- **EXIOBASE 3.8.2** is a multi-regional input-output tables (MRIOT) database, comprising of 163 industries, 44 countries and 5 rest-of-world regions, 1995-2022.
- We estimate market, direct, production prices, value transfers and ground rents for 159 industries, 1995-2020: **159,250 observations**.
- Furthermore: extraction and land use data, capital use (Wood and Södersten 2018), multi-national enterprises in 41 industries, 76 countries, 2000-2019 (OECD AMNE).
- To our knowledge, ours is the **largest dataset for empirical value analysis**, and for production prices (Rotta has something forthcoming).

Direct Prices

Direct prices express labor hours in production of a commodity and capital. Labor is normalized by the deviation of the industrial from the global average wage. [1]

$$gl_j^* = \frac{1}{\bar{w}} \times \frac{W_j}{X_j} = \frac{w_j}{\bar{w}} \frac{L_j}{X_j}$$

The **Leontief inverse matrix** of circulating capital and fixed capital use helps estimate direct and indirect labor hours in production. Normalization enables comparison with monetary prices.

$$v_{j,c,t} = gl_{j,c,t}(I - A - D)^{-1}$$

$$dp'_{j,c,t} = v_{j,c,t} \frac{X_{j,c,t}}{\sum_{j \in J, c=c, t=t} v_{j,c,t} X_{j,c,t}}$$

[1] global wage level $\bar{w}$, industrial wage level w_j industrial wage bill W_j, industrial gross output X_j, industrial labor hours L_j.

Production Prices

Production prices express direct and indirect labor hours, with a profit rate added to labor and capital.

$$
\begin{aligned}
pp &= (1+r)\,(w\,gl + pp\,(A+D)) \\
pp &= (1+r)\,w\,gl\,(I-A-D)^{-1}\,(I - r\,(A+D)\,(I-A-D)^{-1})^{-1} \\
pp &= (1-\frac{r}{R})\,v\,(I - R\frac{r}{R}H)^{-1}
\end{aligned}
$$

We distinguish four production prices, with (1) both wages $(1-r/R)$ and profits Rr/R equalized on the national level **pp1**, (2) only profits equalized globally **pp2**, (3) the hypothetical opposite case **pp3** and (4) profits and wages equalized globally **pp4**.

Price-Value Deviations (1)

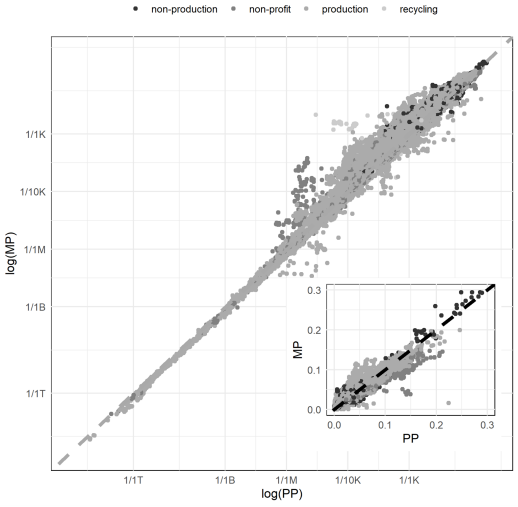
- In mean absolute weighted deviation , market prices are well predicted by direct prices, and better by production prices.
- Fit improves with international profit rate equalization.
- Robust to other distance measures, log-log and linear-linear panel regression analysis.

(MP-DP)/MP	14.14 %
(MP-PP)/MP	13.20 %
(PP-DP)/PP	2.89 %
Countries	44
Years	26

Strongest prediction in the US, France, Slovenia, Italy and Switzerland, weakest in Norway, Greece, Turkey, Indonesia, Cyprus. [2]

[2] $MAWD = 100 \sum(X \times (MP - PP)/PP)/\sum X$

Price-Value Deviations (2)



International Value Transfers (1)

We distinguish value transfers from differential capital compositions under equalized profit rate, and from differential wage rates. [3]

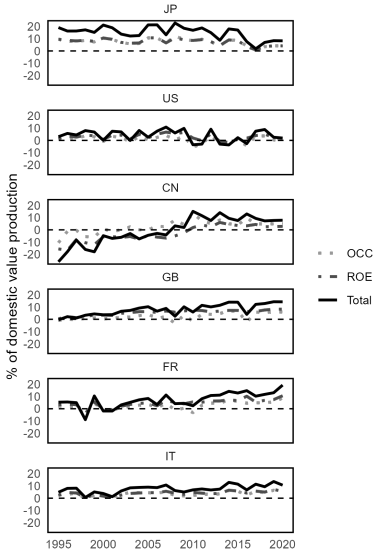
$$\delta 1 = pp2' - dp'$$
$$\delta 2 = pp2' - pp4'$$
$$\delta = \delta 1 + \delta 2$$

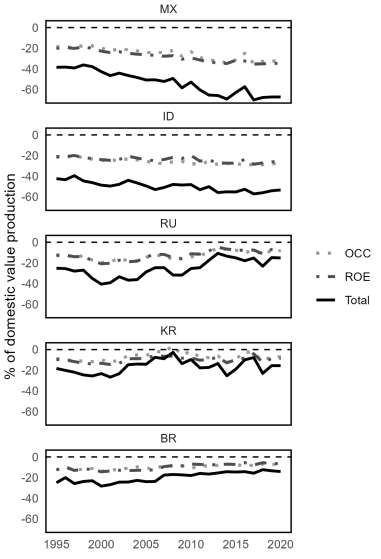
[3] dp' direct prices, $pp1'$ production prices with wages and profits equalized at the national level, $pp2'$ with profit rates equalized at the global level, $pp3'$ with both equalized at the international level. All normalized to shares of international aggregate.

International Value Transfers (2)

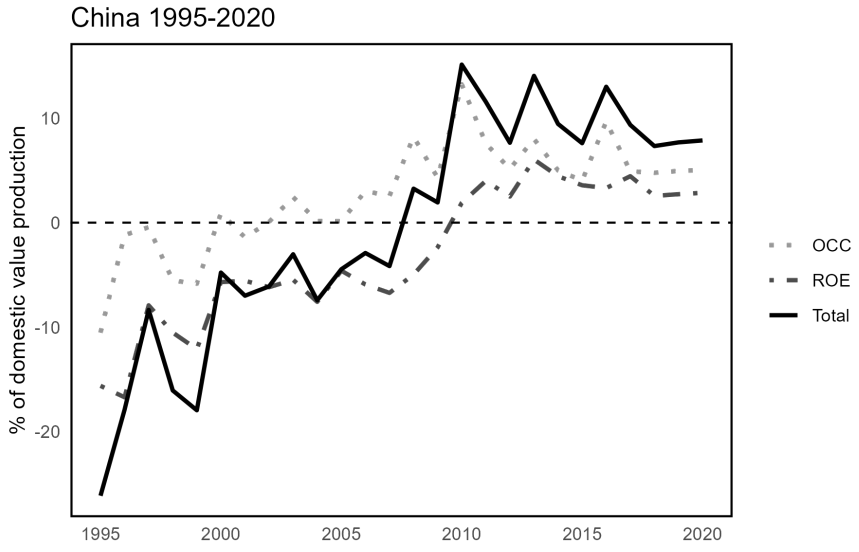
Country	Total	VCC	RSV	% MP
[Sum Positive]	5.90	3.01	2.90	100
JP	2.67	1.33	1.34	11.21
US	1.09	0.31	0.78	20.18
CN	0.90	0.90	0.01	18.63
IT	0.35	0.17	0.19	3.87
GB	0.33	0.10	0.23	3.68
BR	-0.45	-0.23	-0.22	2.51
KR	-0.47	-0.20	-0.27	2.98
RU	-0.50	-0.26	-0.24	1.98
ID	-0.55	-0.28	-0.26	1.32
MX	-1.11	-0.53	-0.58	1.92

International Value Transfers (3)





International Value Transfers (4)



Contentious Issues

Non-zero sum domestic value transfers $pp1 - dp$: Circulating capital matrix and fixed capital use matrix include foreign-produced capital.

Modeling of wage non-equalization, ie. value creating labor not evaluated equally.

$$(1+r)\,w = (1 - r/R)$$
$$(1+r)\,w_c = (1 - r/R - (r_c - r)/R) = (1 - r_c/R)$$

Results

- International value transfers between production industries are estimated at 5.9 percent of gross global production annually over the period.
- Total cumulative transfers over 1995-2020 amount to over 70 trillion euros.
- Transfers are highly unequally distributed: Japan, the United States, and China are the largest net receivers, while Mexico, Indonesia, and Russia are the largest net givers.

Conclusions

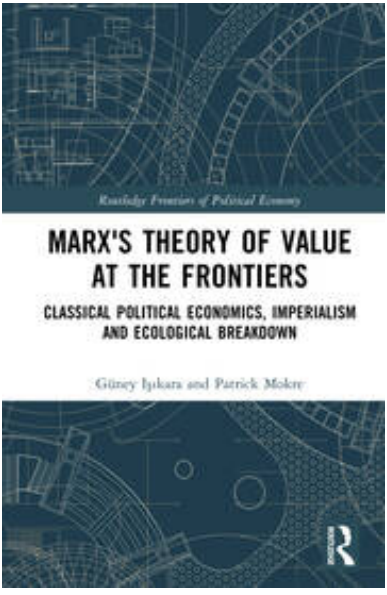
- International value transfers are substantial and very unequally distributed.
- Effects of capital composition and rate of surplus value have similar importance, the latter has not surpassed the former.
- From 1995-2020, China moved from a transfer-giving to a receiving economy, US and Japanese dominance decreased.
- Non-production value captures are significant, but have not surpassed value transfers.

Upcoming book

Marx's Theory of Value at the Frontiers Classical Political Economics, Imperialism and Ecological Breakdown. ISBN 9781032505381. October 10, 2025 by Routledge.

COOPT, EMPTY, EVISCERATE: Nievas and Piketty on Unequal Exchange on developingeconomics.org. June 26 2025.

Price-Value Deviations and the Labour Theory of Value: Evidence from 42 Countries, 2000–2017. Review of Political Economy 34, 2022 (1).



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