

# **Lab 8: Panico on Marx' Modeling of Interest-Profit Relations**

**GECO 6205: Advanced Political Economics 2 (Lab)**

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# Levels of Abstraction

Key to a Marxist understanding of Finance is the interaction of capitalist competition and interest rates. This was however **not** Marx' main concern.

In Volume 3 (Chapter 5) Marx outlines the role of the money lending capitalist as a scheme of reproduction. The lender here is **not** a banker. (Panico 1988, p52f)

Marx offers two mechanisms of the profit-interest relationship:

- ▶ Asset holder decision based in risk/liquidity preference.
- ▶ The role of bankers in profit rate equalization.

# Bankers in the Equalization of Profit Rates

Reminder: Marx deals with the equalization of profit rates as the emergence of a **general profit rate** (GPR).

The GPR serves as a gravitational center for the turbulent dynamics of profit rates. The order (GPR) is derived from the disorder, and then regulates the latter.

The role of finance, bankers and financial capital is two-fold: (Panico 1988, 83f)

- ▶ It makes the turnover of capital process more efficient (“just-in-time reproduction”\*), catering to the ever-increasing instability of the turnover of capital.
- ▶ It impacts the conversion of values to prices, and thereby the emergence of a GPR.

\* *Don't take this term seriously. I made it up.*

# Determination of Interest Rates 1: Principal Components of Money Demand

Panico 1988, p61ff

The analysis of Marx (and Tooke) consists of two steps: (1) consider supply, demand and its components **separately**. (2) Consider re-percussions of effects in single components on other components (sort of second-order effects).

$$M = M_c + M_b$$

$$M_c = v_c C$$

$$M_b = c_r L_b$$

$M$ : money in circulation.  $M_c$ : money demand for non-credit purchases.  $M_b$  money demand by the banking sector (reserve demand).  $v_c$  velocity of money for non-credit purchases.  $C$ : Consumption expenditures.  $c_r$ : Banks' reserve-to-advance ratio.  $L_b$ : Demand for banks' advances.

## Determination of Interest Rates 2: Revenue and Capital

Other than in material production, Marx' argues that the market prices of finance (the interest rate) is **not governed by its material production conditions**.

Instead, one studies the competitive environment of finance to understand its prices.

Expenditure of revenue gives  $C$ , the relationship should be **fairly stable**. This amount of money is generally out of the hand of the banks.

Transfers of capital give  $M_b$ , which tends to substitute for money (rather than actual payments, debts are settled perpetuously), and they return to the banks frequently, i.e. coincide with banks' money reserves. However,  $c_r$  tends to be **very volatile**.

## Determination of Interest Rates 3: Demand for Banks' Advances

In Marx we have four sources of demand for banks' advances:

- ▶ firms need short-term credit to carry on some business (especially in a trade cycle downturn, but also due to liquidity preference, uncertainty, etc.).
- ▶ stock-traders need short-term credit. (Marx acknowledges the growing importance of the Stock market in the 19th century, but doesn't explicitly model it).
- ▶ the government needs short- and long-term loans (important, but complex enough to write its own volume of Kapital on it. Which Marx never did.)
- ▶ firms need long-term loans (Marx assumes this to be a small component).

## Determination of Interest Rates 4

- ▶ Marx rejects any notion of natural/material laws determining the interest rate (e.g. Arndt's growth of timber hypothesis): It is **purely empirical**.
- ▶ The factors determining the interest rates **change over historical periods**. The opinions of lenders and borrowers are crucial (similar as in Keynes, the determination is **conventional**).
- ▶ Improvements in the credit system (and other **economic factors**) change the conventions.
- ▶ **Institutional factors** determine the division of profits between industrial and bank capital.
- ▶ Marx argues that most financial capital is demanded to transform existing capital into more liquid forms, rather than for investment.
- ▶ Loanable capital can accumulate due to a larger mass of profits, and due to a larger amount of money available for reserves (capital mobility towards the banking sector).

## Bankers in a Non-Credit System

- ▶ Bankers act as “cashiers of industrial capitalists” (disbursing and receiving money).
- ▶ For this, bankers advance capital and labour, receive a price, and form a profit rate.
- ▶ The improvements on the banking operations let banking capitalists overcome the restrictions to their “cashier” role:

*“Borrowing and lending becomes their particular business. [...] A bank represents on one hand the centralisation of money-capital of the lenders, and on the other the centralisation of the borrowers. Its profit is generally made by borrowing at a lower rate of interest than it receives in loaning.”*

- ▶ Bankers then perform both the role of a **money capitalist** and **facilitate circulation**.
- ▶ They **earn profit**, not interest.

*In the production of commodities, circulation is as necessary as production itself, so that circulation agents are just as needed as production agents.*

## Marx' Numerical Example (Chapter 17.4, Volume 3)

(Panico 1988, p89f)

Assume all fixed capital is circulating.

$$W = C + V + S$$

$$r = \frac{S}{C + V}$$

$$(C + V)(1 + r) = W$$

Let  $B$  be the amount of **capital advanced**.

$$C + V + S + B = W + B$$

$$r' = \frac{S}{C + V + B}$$

$$(C + V)(1 + r') = W' \text{ where } r' < r$$

## Marx' Numerical Example 2 (Chapter 19.4, Volume 3)

Let  $H$  be the remuneration for the bankers' capital advanced, cashier services, etc.

$$(C + V)(1 + r') + H = W$$
$$B(1 + r') = B + H$$

For the industrial capitalist,  $H$  is a cost, whereas for the banking capitalist,  $H$  must be such that it pays them a profit rate of  $r'$  (which is still determined in production).

## A Marxist Model of Interest Rate Differentials and Sraffian Prices

Interest paid to banks does not enter **in its entirety** into the cost of producing commodities (some of it remunerates the bank for services, some provides the profit rate for the bankers).

$$\begin{aligned}(Ap + lw)(1 + r) + q_i - d\tau &= p \\ (K_b p + l_b w)(1 + r) + B_r + D\tau &= Q_i\end{aligned}$$

where  $A$  is the industrial input matrix,  $p$  the price vector,  $l$  the industrial labor vector,  $w$  the wage rate,  $r$  the general rate of profit,  $q$  the industrial credit input vector,  $i$  the rate of interest on loans,  $d$  the industrial deposit vector (per unit of output),  $\tau$  the rate of interest on deposits,  $K_b$  the banking input vector,  $l_b$  the banking labor vector,  $B$  the portion of capital advanced by bankers,  $D$  the total of deposits,  $Q$  the total of loans.

The solution of the system will be such that  $r > \tau$ ,  $r > i$ , and when  $r$  and  $i$  increase, the purchasing power of  $w$  decreases.

The system can be solved by fixing  $w$ , which gives the relationship between  $i$  and  $r$  a precise form. Marx **rejects this solution empathetically**.