# Falling Rate of Profit in the Long-run

***Who is right-wrong? Marx? Or Marxists?***

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On the 13th Chapter of Kapital's Third Volume, Karl Marx mentions that the profit rate will fall in the long term as a result of the nature and functioning of capitalist production.

> ***… the rate of profit will fall in the long run.***
> **(**Marx, 1974; V-3, Ch. 13; 230)

If Marx' prediction is correct, then there will be no chance of survival of a long-term capitalist order. If there's no profit, there's no capitalist production or transactions. Therefore, the validity of Marx' prediction is very important both for the credibility of Marxist ideology and for the future of capitalism.

Let's take a look at some basic assumptions and concepts about the circumstances under which Marx predicted the inevitable but "fatal" outcome of capitalism.

***Basic assumptions and concepts:***

- *The assumption of a "**given product**":*
  (i.e., products supplied are uniform (given). ***No new products*** are supplied.)
- *The assumption of "**cost-reducing**" technological progress.*
  (i.e., new 'process' by means of which technology reduces the unit supply cost of given products. ***No new products*** are supplied.)
- **C** = (c+v) = Total capital employed:
- **c** = Constant capital.
- **v =** Variable capital:
  Real wage paid to the laborer (constant)
- **s** = Surplus Value.
  Unpaid wage
- **s / v** = Rate of exploitation:
  100 percent, (constant)
- **r = s/C** = Rate of profit:
  which has a tendency to fall in the long-run due to increase in C.

***The law of the falling rate of profit:***

If **c/v** increases while **s/v** is constant, then → **r** ↓

Marx' prediction of the profit rate falling is easy to comprehend: Capitalist production is subject to competition between capitalists. When the amount of fixed capital (c) increases due to a "cost-reducing" technological progress, given the product supplied, the ratio of fixed-capital to variable capital (c/v) would increase. Since the rate of exploitation (s/v) is constant, the rate of profit (r) will decline.

### *Was Marx wrong?*

Interestingly, a large number of economists, Marxist or not, seem to agree that Marx was wrong on that issue. For example, Eres referring to Paul Samuelson’s 1957 study said that Samuelson had reached the following striking and definitive conclusion:

> *Under the assumption that capitalists behave rationally, it is not possible to (i) have technical progress, (ii) fixed real wages and (iii) a declining profit rate simultaneously.* (Eres, 2017;22)

It’s claimed that a large number of critical researches have shown that Marx was "wrong" and that the final point is marked with the ***Okishio theorem***. According to Eres:

> *Okishio’s name was given to a theorem for proving Shibata and Samuelson's results in a consistent and complete article published in 1961.*
>
> *The perception that Marx was wrong had ultimately taken the final shape with Okishio theorem which is widely acknowledged, including Marxist economists. (Eres, 2017;22)*

Thus, according to Eres (2017), with the Okishio theorem Marx's falling profit rate law has been proven to be “wrong”.

Has Marx really been proven "wrong"?

### *Marxists in defense of Marx*

Tonak claimed that a study carried out in the United States by ‘Shaikh and Tonak’ (2020) supports Marx’ prediction:

> *... let me point out that both the organic composition of capital and its ratio to surplus value tend to rise. We have empirically proven that profitability has fallen in the long-run as a result of the faster increase of the first of these two.* (Shaikh and Tonak, 1994; in, Tonak, 2020;203)

Thus, it’s claimed that ‘Shaikh and Tonak's’ research (1994) has proven Marx' falling rate of profit law to be correct. Therefore Marx’s prediction was not wrong.

### ***Marx's*** prediction ***was not wrong but incomplete***

Marx was well aware of technological progress but in his analysis, he used to refer to ***cost-reducing technological progress for the ‘given products’*** only. In other words, ***‘new products’ were not a part of Marx's analysis in regard to a fall in the rate of profit***. This detail is very important in terms of both, explaining "long-run growth" as well as the non-falling rate of profit in the long-run.

Detailed analysis on the relationships between ***’technological progress and rate of profit’*** with:

- ***Given products and cost-reducing technological progress***; and
- ***New products due to technological progress,***

can be seen in *H. Gürak (2016), On Economic Growth and Development*.

Let's explain why Marx was “essentially” not wrong about the falling rate of profit trend.

By assumption, initially there were uniform products, i.e. ‘***given products’*** supplied in competitive markets with ‘***given technologies’, i.e., production processes***.

As long as the capitalist(s) make profit, they will continue to produce the ‘***given products’*** for the markets. Eventually, however, the demand for ‘***given products’*** will decrease over time as markets satiate." Reduced demand will cause "reduced plant utilization capacity", which will cause a rise in unit production costs, cet. par. Declining demand accompanied with increased unit costs, given the market price, would imply declining rate of profit in the long-run.

In summary, ‘given the products’:

***The ’fatal’ and ‘inevitable’ result will be the falling rate of profit*** in the long-run.

Assume that only one capitalist manages to reduce unit costs due to a new technological process and increases the rate of profit in the short run, cet. par.

***The ’fatal’ and ‘inevitable’ result will be the falling rate of profit*** in the long-run.

Assume that the capitalists find "new markets" for the given product(s).

***The ’fatal’ and ‘inevitable’ result will be the falling rate of profit*** in the long-run.

Assume that the state supports the capitalists with generous incentives in order to prevent the profit rate from falling.

***The ’fatal’ and ‘inevitable’ result will be the falling rate of profit*** in the long-run.

## *Was Marx’s prediction correct?*

Not entirely! Marx can be justifiably criticized for not incorporating or perhaps ignoring or overlooking the analysis of ‘***new products’*** while examining the tendency of the rate of profit to fall. Therefore one can say that ***Marx’s analysis was not wrong but incomplete***.

## *The case with ‘new products’*

Assume that a technological progress introduces a ‘new product’ say a ‘smart mobile phone’ in addition to dial-up phones. The profit analysis of the new products, say ‘smart mobile phones’, would produce rather different results. That’s because a ***new product*** is normally ***‘patented’*** which implies a monopoly right and a monopoly price in the market for its developer until the competitors catch up with similar products. In general, demand for a new product is high which facilitates higher than average profits for the capitalist, cet. par. In other words, ***new patented products*** usually imply ***increasing profit rates***.

An up-to-date example; as we today fight the Covid-19 pandemic, there is no vaccine or medicine yet. However, one day, a pharmaceutical company will invent either a new vaccine and/or a drug. When that happens, due to the monopolistic position of the new patented drug, the initial market price would probably be much higher than the average market price of a similar drug some time. Accordingly, the profit rate would be well above the market average.

Both the market price and the profit rate will start to fall as competitors’ develop and start selling their alternative drugs in the market.

Final remarks:

Let’s go back to the original question: ‘Who is actually wrong? Marx or Marxists’?

The answer is: Marx's prediction of the falling rate of profit regarding the given products ‘***was not fundamentally wrong’***, but was ‘***incomplete***’ due to missing the ‘***new products’*** aspect of analysis.

Marxists seem to have failed to develop befitting contemporary and complementary ideas in the foot-steps of their grand master.

## *Resources*


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|---|---|---|
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