

*(A) final part
gold production
monetary
evaluation of
the gold standard*

GOLD PRODUCTION AND INFLATION:

A Post-Mortem on the Debate in Pre-World War One German-Austrian
Social Democracy

by

Gerald A. Levy

*John
de la
O. H. ...
b. ...*

A

Seminar paper presented in fulfillment of the requirements of
Economics 208S: Selected Topics in Advanced Political Economy:
Theories of Competition and Price

January, 1982

Prior to the beginning of World War One the leading theoreticians of the German and Austrian social democratic parties locked heads in a heated polemic concerning the cause or causes of inflation and whether increasing productivity of the gold-mining branch of production was a possible source of this inflation. This debate which lasted from 1910 to 1912 originated because of a need for a response to the period of high inflation in Austria both in terms of developing practical economic proposals and policies and developing a Marxist theory of inflation which would counter the popular bourgeois conception that inflation results from the rising wages of workers as a consequence of the growing strength of the trade union movement.

It is a fact that over seventy years since the beginning of this debate the theoretical issues involved have yet to be clarified and there has been no serious attempt to criticize and critique the positions that were advanced concerning gold-production and inflation. This is all the more surprising since the inflationary period of world-wide capitalism that began in the 1960's has presented a challenge to today's Marxist economists to develop an integrated theory of inflation, crises, and cycles. This challenge, unfortunately, has yet to be answered satisfactorily and the theoretical issues which were first raised in 1910 by Otto Bauer have yet to be clarified let alone settled. This is, moreover, just as important for socialists today as it was then because it is still necessary to develop a theory of inflation which can counter the bourgeois conceptions (both

neoclassical and neo-Ricardian versions); to base this theory on the law of value and connect it to a theory of credit, crises, and cycles; and to develop a practical series of economic proposals to counter inflation.

This paper will first summarize the positions advanced in Bauer's and Kautsky's books and in the articles in Die Neue Zeit by Varga, Spectator, J.v.G. , and Bauer. We will then critique all of these positions attempting to explain the theoretical errors involved and appropriate any possible advances in theory. Lastly, we will develop an outline of a theory of inflation which is based on the law of value and the Marxist theory of money.

I. The Debate on Goldproduction and Inflation: A Summary of the Different Positions

A. Otto Bauer's book on inflation

The debate on goldproduction and inflation began after the publication in 1910 of Die Teuerung: Eine Einführung in die Wirtschaftspolitik der Sozialdemokratie ("Inflation: An Introduction to the Economic Policies of Social Democracy"). The first part of this book analyses the causes of inflation which include, in his view, the development of the productive forces; the anarchy of (capitalist) production; the organization of producers (competition); (international) trade and speculation; and money (the decreasing value of gold due to technical progress in the gold-mining branch of production). Bauer makes no attempt to assess the relative importance of each of these explanations and gives the clear impression that all of these factors are responsible for inflation. We should note here that this method of studying theoretical categories of political economy is unsatisfactory because its multi-causal explanation takes inflation as given and does not connect the law of value and the laws of motion of capital to the theory of inflation in a clear way but rather gives a shopping list of reasons for inflation without explaining the fundamental source of inflation.

Although from the point of view of theoretical clarity Bauer's book falls way short of the mark it should be said, in fairness, that the primary purpose of Die Teuerung was not to develop a coherent theory of inflation, but, rather to explain the economic policies of the social democrats for combating

inflation and exposing and opposing the bourgeois economic theory that inflation results from the growth of workers' wages and trade union strength. The essential point that he made in this book is that while money wages have been rising inflation results in a declining real wage and the growing impoverishment of the working masses. In some parts of Die Teuerung Bauer seems to be saying that inflation is used as a class weapon by the capitalists to cheat workers out of a portion of their wages similar, for instance, to gambling and lotteries. While Bauer does not develop this point fully it must be said that from a methodological viewpoint this interpretation is unsatisfactory because it does not explain an objective cause of inflation tied to the laws of motion of capital but rather rests on the subjective designs of individual capitalists to cheat their workers. This is a very serious problem which arises from his confused multi-causal theory of inflation, but, it must be added in fairness that this subjectivist aspect is not the major explanation of inflation in Die Teuerung and that this multi-causal explanation of economic laws was the standard way in which the theoretical works of the day's social democrats were developed and were certainly not limited to Bauer (see, for instance, Karl Kautsky's The Economic Doctrines of Karl Marx). This multi-causal confusion also is extended by Bauer to his discussion of crises, for instance, his discussion about the anarchy of production and the "disproportionality of production".¹

The debate itself arose from a controversy about section number five of Part One "Das Geld" ("Money") of Die Teuerung.

This is surprising in part because this section is only five pages long and because Bauer does not place any greater emphasis on this explanation of inflation than he does on any of the preeceding explanations and, furthar, does not really develop this theory in the remaining two parts of the book. The explanation in this section seems to be in terms of one country (nation state) although there is no inherent reason why it can't be extended to an analysis of the world market situation. A gold standard is presupposed i.e. in foreign trade everything is paid for in gold, the universal money commodity, and on a national level paper currency is ordinarily used for exchange. The assumption of the existence of a gold standard seems to be correct both because historically it was the universal system of exchange at the time and has only recently been replaced and because it is necessary to first explain the origin of inflation within an economy on the gold standard before one can explain how inflation arises when a capitalist economy is divorced from the gold standard since if this procedure were not taken one could easily mistake a consequence of inflation for its cause.

The two sources of inflation related to gold production are, according to Bauer, that technical change in the gold-extracting branch of production causes the surplus product of the gold-mineowners to rise generating an excess demand and causing a general rise in prices. Secondly, decreasing costs in the gold-extracting branch of production caused either by technical advances or lower costs for employing variable capital lowers the value of gold by decreasing the amount of socially

2
excess demand
types

necessary labor time embodied in a given weight of the commodity gold. This will result in a decrease in the costs of producing gold and the price of gold and since gold serves the special function of the money commodity this will mean that the exchange of gold for other commodities will cause the price of all of the other commodities to rise.

?

production of other commodities

Bauer suggests that it can be shown empirically that the costs of producing gold have been declining in the preeceeding sixty years due in part to the cheaper labor power that can be purchased by the gold-mining capitalists in South Africa and in part to the advances in the technical nature of the gold-mining production process. Both of these arguments it should be noted have to do with the special nature of the money commodity gold and that because of that changes in the costs of extracting gold due to technical change or other decreasing costs of production (cheaper labor power, etc.) will have a direct affect on the general level of market prices. The assumptions of technical change and an increasing organic composition of capital in the gold-extracting branch of production seem to be in accordance with Marx's theories but were, as we shall see, challenged by other social democrats. In an important sense one can say that Bauer's book represented an advance over previous discussions in that it at least attempted to relate changes in the production of the money commodity gold to the rise in the level of prices (inflation) but it contained only an undeveloped embryo of a theory and one which was not causally connected to his other explanations of inflation.

It is important to explain what the practical political conclusions of Bauer's book are. They include the need for a struggle for the indexation of wages (sliding scale of wages); international proletarian solidarity is needed because of the trans-national character of mining gold fields; and inflation should thus be seen as a necessary result of the anarchy of capitalist production and its only answer must therefore be a socialization of the productive forces which will free workers from the arbitrary workings of the market mechanism and gold. These conclusions are significant both because they were the real object of the book and because it is clear that they represent a correct political perspective for combating inflation. Despite the positions that Bauer took in 1914 (supporting an imperialist war) there is no indication here of anything other than a revolutionary programme for fighting inflation.

B. Varga's Response - The Debate Begins

Eugen Varga, a member of the Hungarian Social Democratic Party, wrote a polemical article against Bauer's position on goldproduction and inflation (section #5, Part One of Die Teuerung) in the theoretical journal of the German Social Democratic Party, Die Neue Zeit ("The New Times"). Varga claimed in this contribution that technological progress in the process of goldproduction has no affect on the level of prices because it only generates increasing differential rents within the gold-extracting branch of production. He claimed that Bauer's theory was "bourgeois" because it attributed the source of inflation to the technical nature of goldproduction and because it saw the origin

become demand for gold & price

of inflation in some far-off gold mines rather than being directly caused by the specific conditions in Austria and Germany at the time. Like Bauer himself Varga never offers an integrated theory of inflation but rather limits himself not to explaining the real inflationary process but rather to opposing the Bauer thesis about technological progress in gold production being a source of inflation. In this sense Varga's contribution was a negative one since he made no effort to explain the cause of inflation and limited himself to polemicizing against the Bauer contribution. The most likely reason for this attack on Bauer's book probably lies in the latent political differences within Austro-German social democracy and it seems likely that he believed that Bauer's theory was apologetic and reformist. Yet even the most casual reading of Die Teuerung will demonstrate that this is an illegitimate position since there is nothing either apologetic to bourgeois theory or politically reformist in the book, in fact, the whole point of Bauer's book was to mobilize working class support for the struggle against inflation and for the socialization of the productive forces. Additionally it seems reasonable to demand of Varga that he identify some of the specific historical conditions that caused the Austrian inflation since he is attacking Bauer for not doing this, yet, he fails to offer an alternative explanation of the real social process of inflation.

Varga wants to show that "changes in the gold-extraction

(process) can have no influence on inflation". He discusses³ two possible theories which hold contrary positions - the quantity theory ("Quantitätstheorie") and the cost of production theory. The quantity theory holds that since the mass of gold in the world has risen enormously in the previous half century all commodities exchange against a greater amount of gold than before. If we assume that the issuance of paper currency is not tied to the amount of gold in store then this theory is plausible but if we presuppose the gold standard then this theory would only be correct if we assume that the total amount of gold used for exchange grows at a faster rate than the total national production (or, by implication, the total product of capitalist production on an international scale), Varga dismisses this position suggesting that rather than gold production increasing faster than the total commodity production there is an absolute shortage of gold represented by an excess demand for gold by the banks. If this in fact were not the case then gold would stand for money more in reality and there would be a diminution in the issuance of paper currency and other forms of convertible notes whereas the process of inflation in reality affirms the exact contrary phenomenon.

The cost of production theory is the position that Varga claims that Bauer has adopted. This theory holds that even though gold doesn't serve to fulfill all of the needs of circulation with technological change in the gold-extracting branch of production the prices of all commodities will rise because of the special and indispensable nature of the money commodity gold.

He rejects this theory because he believes that gold is a special commodity like some other mining products that yields a rent and is therefore exempt from the formation of the general rate of profit and prices of production. If we believe this to be the case then there is no incentive for gold-mining capitalists to introduce technological changes in their production process, or to have competition amongst themselves. The organic composition of capital in the gold-mining branch of production would therefore either remain constant or could conceivably decline.

In the case of gold production, according to Varga, production can only be increased through increasing production costs as in the case of agriculture with an absolute shortage of soil. Prices are determined in such circumstances by the production costs in the least yielding fields of production or, in this case, the poorest mines, that can be industrially used. Mjösset has summarized this aspect of Varga's theory in the following manner:

"Since we're talking about the production of the general equivalent, the maximum production costs of 1 oz. gold is 1 oz. coined gold. If you establish yourself in gold-extraction and your mine yields 1 oz. gold with production costs less than this, then your mine is not the poorest and you receive a differential rent. The production costs of a mine are primarily dependent on the gold-content of the ore, as well as on the depth of the mine. (Varga gives empirical evidence of this, p. 218). These production conditions differ extremely from mine to mine, that is: underneath the maximum costs there is no systematic variation of costs. Now Varga argues that technical progress will not affect the gold produced under the poorest conditions therefore the only consequence of such progress is an increase in the differential rent of some of the mine-owners. The regulating price of gold remains the same (1 oz. coined gold invested must give a return worth at least the same, i.e. 1 oz. gold). With technical progress it could then happen that even poorer mines would be utilized. But this only means that the former poorest mine now would receive some kind of differential rent. The regulating price of gold would only sink if too much gold was extracted,

it would then increase and the poorest mines would be closed down. But - as we have already noted - Varga suggests that empirically there exists an excess demand for gold. Therefore there is - in contrast to freely reproducible goods - no competition in the gold production process. Gold produced at lower costs doesn't push the price down, it yields the same regulating price, giving the mine owner and/or capitalist increasing extraprofits in the form of differential rent.

Varga points out that Bauer seems to have recognized this, since he as a second cause mentions the increasing income and demand from mine-owners, etc. (thereby presupposing a constant price of gold). But against this Varga points to the following arguments: (i) This new demand is primarily directed to luxury products, (ii) or towards investment goods, therefore wage goods would be unaffected. (iii) Goldmining capitalists are a decreasing percentage of capitalists on a world scale. Therefore the only element in Bauer's theory that was theoretically plausible is not empirically sound". (manuscript corrected, G.A.L.) 4

As interesting as this theory is and while there may be some empirical evidence to support it its fundamental problem is that it attempts to divorce the conditions of the production of the money commodity gold from the operation of the law of value. It is not difficult to demonstrate that there has been a tendency for increasing productivity in the gold-mining branch of production and that the organic composition of capital in this branch has risen significantly over time (whether it has risen faster than the average rise in other branches of production is another question). The wild speculation in gold which periodically occurs would also tend to work against Varga's suggestion that there is no competition in the gold-mining branch of production. One could ask why the capitalists owning the best most productive and richest mines would not attempt to increase gold production without limit under such circumstances. Varga's assumption that the banks can control the production of

gold by establishing differential rents ignores the speculative demand for gold and the sale of gold to non-financial institutions. The flooding of the market with gold (as, for instance, when the U.S.S.R. sold large amounts of its gold reserves to Western capitalists) has had an immediate effect of causing the market price of gold to fall and this again would seem to create problems for Varga's thesis. Ironically, this position moves towards Hilferding's position that the banks and financial institutions have collective control over the issuance of paper currency and gold production in an "organized" way rather than the law of value determining the conditions of production and the market price of gold.

good ✓
 but
 not
 possible
 for
 workable
 program
 pg came
 full
 be used
 filed

C. Bauer's Reply to Varga and the contributions of J.v.G. and Spectator

Bauer responds to Varga by arguing that it is necessary to explain the way in which the "law of prices" manifests itself as a social law, in other words, "in what way the sinking value of gold results in inflation"⁵. Under the pressure of an open literary debate in the pages of Die Neue Zeit Bauer shifted his position somewhat in two significant ways, firstly, by insisting that the argument that increasing gold-extracting productivity causing inflation must be tied to the law of value (or as he puts it, in a less scientific formulation, the "law of prices") and must be a necessary consequence of that law, and, secondly, whereas he had previously claimed in Die Teuerung that this was only one of many causes of inflation he seems to be suggesting in this article in Die Neue Zeit that this process is the

primary social mechanism that necessarily brings inflation into being. From the point of view of helping the debate on gold-production and inflation to advance both of these shifts are improvements. Unlike Varga at least Bauer sets himself the task of explaining and developing a theory of inflation and he also attempts to connect this theory to the laws of motion of capitalist development and the law of value.

Bauer's answer to Varga is summarized well by Mjösset in the following lengthy passage from his paper:

"Decreasing costs of production - general case. - Bauer first likes to remind us about the mechanism through which prices are adapted to new production costs within commodity production in general abstracting from goldproduction.

Bauer sets up a (verbal) model with an industrial sector and an agrarian sector both based on capitalist principles. Initially the rate of profit (from now on r , respectively r_i and r_a) $r=r_i=r_a=15\%$. Sector I now introduces machinery and the costs of production then sinks by 10%. If prices remain unchanged, this gives us $r_i=27.7\%$, $r_a=15\%$. Through competition within Sector I, r_i is reduced to $r_i=21\%$. Bauer then looks at the distribution of investments. Before the introduction of machinery, sector A absorbed 30% and sector I 40% of total investments. After they absorb respectively 25%(A) and 45%(I) since $r_i > r_a$. That is: capital flows from Sector I, but this gives an excess supply in Sector I, therefore r_i settles at $r_i=16\%$. Since this change in the flow of investments also generates excess demand in agriculture, r_a jumps up to $r_a=16\%$.

Now the final level of the rate of profit depends on several factors (and this isn't that important to Bauer's argument): the influence of a smaller reserve army and increasing costs of raw materials. Bauer gives the following systematic account of the whole process:

<u>Stage</u>	<u>Industry</u>	<u>Agriculture</u>
I Share of total capital	40%	30%
r	$r_i=15\%$	$r_a=15\%$
II Production costs	Lowered	Constant
r	$r_i=27.7\%$	$r_a=15\%$
III Competition	Increasing	Decreasing
r	$r_i=21\%$	$r_a=15\%$
IV Change in the share of total capital	40% & 5% = 45% (increasing)	30% - 5% = 25% (decreasing)

V. Change in Supply	Increasing, Prices sink $r_i = 16\%$	Decreasing Prices increase $r_a = 16\%$
r		

According to Bauer (referring to Bauer 1910, pp. 13-18, where this is counted as another cause of inflation) this reflects a real process: agrarian production has stayed behind in recent economic development, industry has grown faster than agrarian production.

Decreasing costs in one industry seem to increase prices generally (Bauer refers to Marx, Das Kapital, Vol. III, p.199 ff and Marx Theorien, Vol. II, 2, pp.38-40, both: old editions). From the discussion above Bauer concludes that the following holds for all commodities:

1. Decreasing costs in industry A changes the distribution of capital for different branches or sectors.
2. Demand/supply relations are changed. The supply of commodities A increases, the supply of all other commodities decreases.
3. The prices of commodities A sink, all other prices rise.

This process is in fact the reduction of market prices to prices of production via demand/supply fluctuations. Further on Bauer will investigate whether this also holds for gold. But already at this stage of his argument, he claims to be able to point out the main flaw of Varga's argument. Varga accused Bauer of believing that decreasing production costs automatically determines the increase in prices. But, as Bauer has shown, it is not so simple: decreasing costs influence prices only through changes in the relation between demand and supply generated through the redistribution of social capital (p. 8f). Varga doesn't understand that this is a question of the "mediating links" (Zwischglieder). So the answer to the influence of gold-extraction can only be found through an analysis of the changing relations of supply and demand generated by cost decreases in gold-extraction". (manuscript corrected, G.A.L.) 6

There are a number of problems with Bauer's argument which at this point have to be taken notice of. Firstly, it is doubtful whether the schemes of reproduction that Marx used in Volume Two of Capital can be used to shed any light on the real social process of inflation. It is not methodologically correct, we would suggest, to locate the necessity of inflation in the process of capitalist exchange as the formation of the general

profit rate, crises, credit and cycles can only be understood by examining the process of capitalist production as a whole. If we examine the exchange process independently of the production process the most we would be able to accomplish would be to locate the formal abstract possibility of inflation and not its cause. The other obvious problem with Bauer's argument is that it rests on the assumption that technical change, competition, and an increasing organic composition of capital occur in Sector (Department) I but not in Sector (Department) II. If this assumption were not made and if the organic composition of capital and competition increased in Department II then this whole theory collapses unless one made the further assumption that the rate of change in the organic composition of capital is less in Department II than it is in Department I. It is furthermore not sufficient to simply suggest that empirically this has been the case, rather, one must demonstrate the actual social mechanism and theory behind it causing the lag of agricultural development behind industrial development. There is no theoretical reason which can be advanced at this stage of the analysis to exclude the acceleration of competition, concentration, and technological change in Department II but rather it could be argued either this is the case in both departments if we are studying the process of capitalist exchange or if we are studying the process of capitalist production as a whole that for capitalism to sustain a growth in accumulation it is necessary that both departments grow simultaneously.

It should also be added, however, that Bauer's call for the necessity of establishing "mediating links" is a legitimate criticism of Varga although, as we have suggested, it is questionable to what extent Bauer's analysis has satisfactorily established these links.

We can now pass over to Bauer's explanation of this process when gold production is taken into consideration. Continuing on with Mjösset's summary:

"The poorest gold mine yields gold worth 1,150,000 marks with total costs of 1,000,000 marks. The rate of profit is $r_g = 15\%$. (As a result of Varga's critique Bauer takes differential rent into account here; the mine described here gets a differential rent, i.e. a surplus product, worth more than 150,000 marks). A new machine is then introduced which is more productive but has the same costs; the mine now produces 1,300,000 marks in gold. r_g thus goes up to $r_g = 30\%$. A flow of capital is therefore directed into gold-extraction and this results in the utilization of even poorer mines.

Whereas before 1% of the total capital was employed in gold-extraction, now 2% is. The distribution of capitals between the 2 branches of production has changed. What are the effects on commodity markets? Demand has increased (from mineowners, rentiers, etc.). Supply has also increased, but slower than it would have done if there had been no technical progress in gold-extraction. The G-sector has occupied a part of the accumulation fund (p. 10). "Therefore, the supply of commodities has increased at a slower rate than it would have without technical development in the gold-production". This is the first phase of the process: increasing demand and decreasing supply generates inflation thereby also increasing the rate of profit.

This brings up the difference that Bauer seems to find between the influence of technical progress in gold-extraction as opposed to commodity production in general. In the general model with A- and I-sector, a decrease in costs lowers I-prices and causes A-prices to rise because of the change in the distribution of capital towards these two sectors. In the gold-extraction model, on the other hand, all prices rise, and - this is crucial to Bauer's argument - here there's not just a change in the distribution of capital within the sphere of commodity production, but now "the share of total commodity production out of total capital has decreased" (p. 11). (Just a short note for discussion here: Didn't Bauer state that gold takes part in the equalization of the

profit rate just like any other commodity? How can he now argue that goldproduction is not a part of commodity production?)

Now, the process goes further: An increasing rate of profit generates prosperity. The turnover rate is lowered (the share of production in total turnover-time is increased, p. 11). Demand for workers and capital goods increase. Capital hungers for more credit and this is possible to get since goldproduction has increased. The amount of accumulated surplus value has increased. The following two factors then contribute to inflation: (a) increasing credit lowers the rate of interest which stimulates activity in the construction sector, the state, and the local governments (p. 11); and (b) faster accumulation of surplus value, expansion of all branches of production, increasing demand for labour power, consumption goods, and a diminishing reserve army. Workers have the opportunity to struggle for higher wages. Sections with a low organic composition of capital $(c/v)_l$ are hit harder than those with a high composition $(c/v)_h$. More new capital than before now flows to $(c/v)_h$. Total (c/v) therefore increases. Prices of $(c/v)_l$ industries rise at a faster rate than $(c/v)_h$ industries.

According to Bauer inflation increases the rate of profit, but it also produces "counteracting tendencies", like (i) increase in the price of raw materials, (ii) rising (c/v) which sets a limit to the increase of r . (But as Bauer notes (p. 13) workers will not generally manage to fully protect their real wages against inflation and this is therefore not a counteracting tendency).

But costs in goldproduction have now increased because of more expensive means of production and labour power. Also, poorer mines are now utilized. Contrary to the situation in other industries r_g has decreased. The gold sector no longer receives an extra profit. "The equalization of profit rates is completed". (p. 12)

*Technical progress in goldproduction did rise the rate of profit in the gold mines above the average rate of profit. Such a disparity is not tolerated in the process of competition between capitalists. Competition leads to a new distribution of capital, which again equalizes the rates of profit, as it, on the one hand, increases the rate of profits in commodity production (since it increases prices), and, on the other hand, decreases the rate of profit in goldproduction (since it increases costs of production). The result of this process is that gold again is exchanged with commodities in relation to prices of production, that is, in such a way, that goldproduction again gets the same share of social surplus value (per unit capital) as all other commodity producers get. This equalization of profit rates was generated through the increase in commodity prices'. (p.12f)

At this stage of his reply, Bauer raises his main objections against Varga:

Varga is right saying that since technical progress in gold-extraction results in the utilization of poorer mines, the price-regulating costs of gold remain the same; but, says Bauer, one must study how this comes about, one should not just state the final result. The main flaw in Varga's argument is his undifferentiated assertion of no competition in the gold industry. One has to distinguish between competition within a sector (the reduction of individual prices to a common market price), and competition between sectors (the making of prices of production containing a general rate of profit for all sectors). With respect to the former, it is correct that there is no competition in the G-sector, but this is not right with respect to the latter. There are no restrictions on capital flows to the gold sector if this shows a temporarily higher rate of profit. The law of an average rate of production is valid also for the gold sector. Therefore sinking costs in gold production generates a change in the exchange relation between gold and commodities (i.e. inflation), until the rates of profit are again equalized," (manuscript corrected, G.A.L.) 7

The practical conclusions that Bauer comes to in this article for working class activity remain the same as the ones he advanced in his book, namely, that inflation is used as a means to cut workers' real wages, that international solidarity and a struggle against imperialism are necessary, and that only the socialization of the means of production can free the proletarian masses from being "slaves of the gold".

There are a number of additional complications with this explanation that we can examine now. Bauer is, on the one hand, examining the special nature of the money commodity gold and it is its nature which causes the changes in the process of gold-production to have a direct inflationary effect on the prices of all of the other commodities, but, on the other hand, as Mjósset suggests, the gold-mining branch of production takes part in the equalization of the rate of profit in the same way that the

commodities produced in all of the other branches of production do. This is a difficult theoretical tangle but we could suggest that this confusion arises precisely because Bauer has not been careful enough to establish those mediating links in his argument which he saw as so important. The first problem can be discussed within the process of capitalist exchange and the formal possibility of inflation but the formation of the general profit rate must be established at the level of the process of capitalist production as a whole. It would also be correct to suggest along with Bauer that the credit system and the movements in the mass and rate of profit are essential to the complete answer to this question.

Bauer also seems to be somewhat confused in his treatment of the "counteracting tendencies" and further seems to be implicitly accepting part of Varga's theory of differential rent in the gold-extracting branch of production but he does not explain this process. This concession to Varga is not well-founded in our opinion and, moreover, does not fit in well with the remainder of Bauer's theory.

One must conclude, however, that Bauer's most fundamental criticisms of Varga's method, namely, that it asserts what it seeks to prove, ignores competition in the gold-extracting industry, and does not establish a connection with the "law of prices", are correct and we would have to support it. Despite a series of questionable statements, confused formulations, and misuse of economic categories, Bauer is correct against Varga's method on a) the importance of showing the origins and necessity

of inflation; b) connecting up the actual process of inflation with the law of value; c) calling for establishing mediating links in this analysis; and, d) insisting that this study must proceed from the assumptions of increasing competition and organic composition of capital rather than the opposite assumptions.

J.v.G. (an anonymous author) and Spectator (M. Nakhimson) also participated in the exchange in Die Neue Zeit. J.v.G. supported the Bauer-Kautsky position and Spectator although he had conceded that Bauer had raised legitimate objections to Varga's theory and method claimed that empirically Varga's position on rents in the gold-extraction industry was the more correct. Neither of these two authors, however, advanced significantly new positions in this debate and were only minor contributions. Spectator's position especially seems to hedge the major analytical questions in the debate through an appeal to statistics.

D. Kautsky gets the last word

The last round in the debate of 1910-12 on goldproduction and inflation was fired by the elderly dean of the German Social Democratic Party, Karl Kautsky, in his book entitled The High Cost of Living. This book attempted to simultaneously develop a Marxist theory of inflation; present it in "popular" form; defend the Bauer theory concerning goldproduction and inflation against Varga's critique; present relevant empirical data; and summarize and settle the debate on goldproduction and inflation. Of all these tasks Kautsky most failed to accomplish this last

task as although he throws some rather sharp barbs against Varga he neither summarizes the analytical issues in the debate well nor does he advance it significantly beyond its previous level.

Kautsky summarizes the present state of this debate by accurately writing that;

"Comrade Varga published, more than a year ago, an article in the Neue Zeit on 'Gold Production and the Rise in Prices', in which he set forth the theory that changes in the production of gold are not accountable for the present rise in prices, and furthermore that such changes would never cause a fall in the value of gold, but only a rise of ground rent in mining. He has recently sought to support this view, which was contested by J.V.G. and myself". 8

Kautsky advances the following criticisms against the Varga position: (1) He repeats Bauer's charge that Varga's criticism of their position is a tautology: "it merely states that which it seeks to prove, namely that prices do not rise because of the increased production of gold". (2) "If Varga concludes from this that changes in the method of producing gold cannot make changes in the prices of commodities, he proves too much, since such changes have been a frequent occurrence in history and conspicuously so in the sixteenth century, after the discovery of America". (3) "Varga declares the system of banking to be the reason why changes in the production of gold do not automatically operate to produce changes in the value of gold....(however) in reality the banks play no part in the economic role of gold". (4) He quotes Varga's statement that "owing to the cheaper working of ores a kilogramme of gold metal can now be had by the expenditure of a smaller quantity of minted gold" to which Kautsky replies : "but gold is not produced by means of gold,

but by the expenditure of human labor". (5) He charges that Varga confuses the technical and economic uses of gold and does not understand that technically gold remains in bank vaults but economically it circulates in bills of exchange. This is an important criticism precisely because Varga's position, as Kautsky has already pointed out, rests on a misconception about the relationship between banking and gold-production. (6) He attacks Varga's rent theory by arguing that if Varga were right then the rents for mining precious metals would become higher than in any other method of exploiting land "But Adam Smith declares that in no other form of industry are ground rents so low, and Marx supports him". He implicitly suggests that the Varga theory is Ricardian and therefore represents not only a step away from Marx but a step walked in the wrong direction away from Smith. (7) "If he (Varga) wants to show that the law of value does not apply to the money-commodity, he must prove that an increase in the demand which arises from increased gold-production has no influence on commodity prices, commodity exchange, or commodity production. He would find this hard to prove". That is, by abandoning the law of value it will be impossible for him to explain anything of importance.

It would seem that these charges taken together represent a severe and at least partially successful broadside on the criticism of the young Varga by the elderly admiral of Social Democracy. A couple of Kautsky's points, however, such as (2) and (3), are particularly contentious as an appeal to special


cases in economic history (the discovery of gold in the Americas) and denying the role of banks and finance capital in the inflationary process are unconvincing and do not serve well to dissuade workers from accepting Varga's theory.

The purpose, however, of Kautsky's book extended beyond polemicising against the Varga position and in it he developed an explanation of inflation that is significantly different from that of Bauer's Die Teuerung. One such development was his explanation of how increases in gold-mining productivity cause inflation under a system of simple commodity production. If the gold producer does not sell gold as an industrial commodity but transforms it into money he is the only commodity producer who enters the market with a demand and not an offer. "The demand which he makes is quite independent of the conditions of the market in so far as he is the only producer who does not need to have sold in order to be able to buy"¹⁶. He goes on to assert that "additional gold becomes the starting-point and the impetus to an additional circulation of commodities in which again arise new demands and commodities"¹⁷. In simple commodity production "the circulation of commodities follows the rule of the law of value. The product of an hour of labor is bought with gold to whose production an hour of labor is necessary"¹⁸. Now if we suppose that due to discoveries it is possible to double the production of gold with the same amount of labor time, then "productivity in other branches of production remains the same, therefore the amount of commodities for the market does not grow in proportion to the amount of gold. The demand for

commodities therefore grows stronger than the supply. The prices of commodities must therefore necessarily rise, even if there is not the least change in the disposition of the social labor forces". "The result will be a doubling of the prices of commodities"¹⁹.

Kautsky then extends this argument to capitalist production by asserting that the "increase in the functions of money and credit" in the preeceeding 20 years have strengthened and not weakened the influence of goldproduction on the prices of all commodities. Unquestionably credit and finance capital have to be understood to explain the real process of the development of inflation under capitalism, but, Kautsky, does not explain the actual mechanism of how increases in goldproduction cause inflation under capitalism but rather assumes it to take place in the same way as under "simple commodity production" with only additional complicating features ("new forms of money and credit") that have to be taken into account. Also, since Kautsky has already dismissed the importance of banking institutions on goldproduction when discussing Varga it seems a little contradictory for him now to appeal to banking and credit to explain how the inflationary effect of goldproduction productivity has increased under capitalist production.

A more serious and fundamental objection can be raised against this explanation of inflation by Kautsky. It does not seem appropriate to this writer to begin explaining inflation under a system of simple commodity production. In the first place this form of production itself is an artificial construction, secondly, it explains the laws of motion of capital in the



circulation process and not in the process of capitalist production, it can not therefore take into account, thirdly, the developments in the monetary mechanism, credit, and banking particular to advanced capitalism, and therefore, fourthly, it is not possible to develop a real understanding of the laws of motion of capitalist development and how inflation necessarily arises from these laws. Quite simply, it is illegitimate to develop an artificial ahistorical abstract conception of the exchange process (simple commodity production) and then go on to explain how the laws which govern this form of production are modified by capitalism. It should be remembered, though, that this method of proceeding from an analysis of simple commodity production to capitalist production was by no means limited to Kautsky and at the time he wrote this book would have been accepted by all sides of this debate and virtually all contemporary Marxist economists.

Kautsky's practical political conclusions are basically the same in The High Cost of Living as in Bauer's book which began the debate. Kautsky's book, though, shows quite clearly how in at least one major respect Bauer's original explanation of inflation changed in the course of this debate. Bauer began his book by explaining many different causes of inflation of which goldproduction was just one and we saw in his reply to Varga in Die Neue Zeit how the emphasis shifted. Although Kautsky explicitly declaims a theory of inflation totally based on goldproduction ("I have never said and certainly never maintained that gold is the only cause of the rise in prices")

it is evident that he does believe this to be the primary cause of inflation. In this way what began as a suggestion by Bauer in five pages of his book as a possible cause among many of inflation under the force of debate shifted to the primary and essential cause of inflation. To the extent that this represents a shift away from Bauer's multi-causal approach this represents an improvement in the state of the discussion, however, it must be immediately added that the theoretical exposition of inflation progressed little if at all in the course of this debate except insofar as it dismissed Varga's rent theory of goldproduction.

II. An Evaluation of the Debate on Goldproduction and Inflation

1. This debate arose because of the need for a political and programmatic reponse by the Austrian and German social democrats to the inflationary period preeceeding World War I. The issues of the debate, however, are not overtly political in nature but are rather limited to the theoretical discussion of goldproduction and inflation. Varga charged in his contribution that Bauer's book was partially "bourgeois" because it attributed part of the source of inflation to economic-technical conditions outside of Europe in the gold-extraction industry. This charge, though, must be emphatically rejected both because of its implicitly anti-internationalist conception and because the political conclusions of Bauer's book - calling for international working class solidarity, struggling against imperialism, and the socialization of the productive forces - are clearly not "bourgeois". Undoubtably Varga thought that Bauer's attributing advances in goldproduction as a source of inflation was an attempt to smuggle in a new reformist theory of inflation, yet, even the most casual impartial reader of Bauer's book must reject this charge.

It is interesting to note that despite the literary furor that this debate generated the practical political evaluation and proposals for working class activity did not shift at all during the course of this debate. It must be added, in fairness, that regardless of the theoretical inability of the participants to contribute towards an advancement of the explanation of inflation their political evaluation of the effect of inflation

on working class incomes and their practical proposals were well suited to the conditions of the time and represented a clear revolutionary class alternative to capitalist rule.

2. To understand the growth of inflation at any one moment in history it is not sufficient to analyse the particular nature of a specific national economy and see how inflation has specifically developed. The understanding of inflation must begin not just with an analysis of a concrete situation but must rest on a theory of inflation. On this point too we must support Bauer against Varga in that at least Bauer understood the necessity of developing a theory of inflation tied to the laws of motion of capital whereas Varga, on the other hand, only sets himself the negative task of disproving one of Bauer's theories, and, on the other hand, implies that inflation can be understood by examining the specific features in Austria that gave it birth.

3. The next question that must be raised is where to begin a theory of inflation. We have seen that Bauer located the necessity of inflation caused by increases in gold production by examining the process of exchange and the reproduction schema whereas Kautsky attempted to show its origins within "simple commodity production" and then assert that capitalist production has only exacerbated the causes which gave it birth. Both of these approaches are methodologically unsatisfactory. As we have previously suggested, the necessity of inflation can only be shown in the development of the banking and credit system in the process of capitalist production as a whole whereas an



✓
Vogel
K

analysis of the process of capitalist exchange in isolation from the capitalist production process can only show the abstract formal possibility of inflation and not its cause. Kautsky's approach is just as unconvincing both because simple commodity production is an artificial ahistorical construction divorced from the reality of capitalist production and because its scope is limited to the process of commodity exchange and can therefore not be used to help explain the laws of motion of capitalist production. It is furthermore illegitimate to establish a proof of the necessity of inflation by showing its emergence under simple commodity production and then asserting, as Kautsky did, that because capitalism further develops the banking and credit systems the same "proof" holds true for capitalist production. We would suggest that it is because this debate was never able to begin its analysis with an examination of the capitalist production process that it was never able to begin to develop a correct theory of inflation and is the most fundamental source of all of the chief errors of its participants.

4. It has been convincingly argued that for Marxist crisis theory it is inappropriate to formulate a multi-causal theory of crisis because such a theory makes it impossible to explain the fundamental cause and necessity of crises and is an expression of a tangled theoretical cobweb skipping mediating steps and confusing cause and effect. This same criticism must be extended to the Bauer multi-causal theory of inflation. It is not sufficient as Bauer did to catalog a shopping list of causes of inflation, rather, one must locate its fundamental cause and

necessity within capitalist production. Although Bauer shifted his emphasis in the course of the debate to the development of a primary cause of inflation it must be said that all of the participants in the debate (Bauer, Kautsky, and Varga especially) insisted that there was no one theoretical cause of inflation under capitalism. This is an unsatisfactory approach and dismisses the task of a clear theoretical exposition of the fundamental cause and necessity of inflation for an easier way out, although, at least the shift in the debate away from Bauer's original approach to trying to locate a primary cause of inflation represented a step forward for this discussion.

5. We would argue that Varga's rent theory of gold production is totally unsatisfactory for a number of reasons. Firstly, this theory rests on an unrealistic and unreasonable assumption about competitive behavior and technical change in the gold-extracting branch of production. There is every reason to suggest that increasing labor productivity, intensity of competition, and organic composition are the rule in this industry as with all other major branches of production. The theoretical importance of this position is obvious and empirical evidence would also tend to suggest an interpretation contrary to Varga's thesis. A second problem with Varga's theory is its belief that banking and financial institutions can control the amount of gold production by establishing differential rents in the gold-extracting branch of production. This aspect of Varga's theory is particularly weak both because it ignores the speculative demand for



gold because it leads to the Hilferding position that banking institutions can control economic forces in an organized way rather than vica versa. The most fundamental problem with Varga's rent theory is that it does not understand either the special nature of the money commodity gold or the pervasiveness of the rule of the law of value. Varga's attempt to criticize the "bourgeois" position of Bauer, ironically, rests on the irrelevance of the law of value for the gold-extracting industry and it is in this sense that it can be said that Varga made the most serious theoretical error in the debate.

6. The Bauer - J.v.G. - Kautsky theory of goldproduction and inflation is, however, not without serious analytical flaws. We have already examined some of the basic methodological errors of the Bauer-Kautsky position such as its multi-causal analysis and the location of the source of inflation within the exchange process, simple commodity production, or the reproduction schema. Ernest Mandel, the only contemporary author to comment on this debate, has levelled a more serious charge against this theory: "Kautsky ... overlooked the fact that an increase in the volume of gold production leads only to an increase in money capital, and that the distinctive characteristic of gold is precisely that it does not have to be injected into circulation, but can also be hoarded in the form of treasure. There is hence no automatic certainty - as Kautsky assumed - that the annual production of gold will raise the total demand for commodities along with its own value. This depends on whether or not the

R.V.
good

✓

additional quantity of gold is integrated into circulation, i.e., on the given conjuncture of the capitalist economy, the volume of commodity production, the velocity of the circulation of money, the volume of credit (the payments, besides the exchanges functions, which have to be met by this money) and so on".²¹

Mandel, it would appear, levels a devastating charge against the Bauer-Kautsky theory and although this criticism is not entirely correct (Kautsky does in fact analyse the process of hoarding) it does make the essential point. The Bauer theory that an increase in goldproduction is a necessarily inflationary process is obviously dependent upon the idea that the total demand for commodities will grow along with the value of gold, but, Mandel convincingly refutes this assumption. If Mandel's criticism is accepted - which we would say it must be - then it must surely capsize the logical structure of the goldproduction theory of inflation.

7. In his reply to Varga in Die Neue Zeit Bauer pointed to the importance of "mediating levels" in the analysis of goldproduction and inflation. While Bauer used this charge to great advantage against Varga's critique this same criticism must be levelled against the Bauer-Kautsky goldproduction theory of inflation. The most fundamental weakness of the Bauer-Kautsky theory was that it did not show how the law of value necessarily brings into being an inflationary process but rather attributed the special characteristics of the gold-extracting branch of production as the cause of inflation. The failure, in particular, to integrate

a theory of the credit system, credit cycles, finance capital, and crises made it impossible to locate the causal necessity of inflation. It was this inability to integrate more concrete theoretical categories into the theory of inflation that ultimately prevented this debate from achieving its intended object, i.e. , to appropriate from reality a theory of inflation which placed inflation as a necessary consequence of capitalist production.

*a good example
of repetitions*

It must be added, in fairness to the participants in this debate, that Marxist analysts have not been able to advance significantly beyond the point where this debate ended in the more than sixty years that have lapsed. More recent discussions (Mandel, Fritsch, deBrunhoff, and Foley)²² have not been able to competently develop a theory of inflation which is tied to the law of value and is a necessary consequence of the laws of motion of capitalist development. In fact, with the exception of Mandel, none of these authors have made any reference to the goldproduction-inflation debate and have therefore not been able to appropriate any of the theoretical advances or avoid any of the theoretical blunders that the debate exhibited.

A recent example of how Marxist economists have not been able to move beyond or learn from the theoretical errors that were committed before World War I is to be found in an exchange between H. Wolpe, Michael Williams, and Barbara Bradby about the particular nature of South African capitalism and gold-

23
 production. Williams' theory, in particular, is nothing other than a modernized modified version of Varga's rent theory of gold production. He, like Varga, assumes that gold producers do not enter into competition and that there is an incentive for gold-producing capitalists to maintain a low organic composition of capital, i.e. , to have "as much labour packed into as little gold as possible"²⁴. This argument, like Varga's, depends on a constant or falling rather than an increasing organic composition of capital in the gold-extracting branch of production. That this theory is at odds with the law of value and the tendency for the rate of profit to fall was convincingly shown in Barbara Bradby's reply to the Williams article. Although the debate on the nature of South African capitalism is obviously analytically distinct from the debate on inflation it can be seen here just how small the advances have been since the debate in Die Neue Zeit.

The most serious evidence though of the extent to which Marxists have not been able to approach a better understanding of inflation since 1911 is the wide-spread acceptance among "Marxists" of the neo-Ricardian theory of inflation. The neo-Ricardian theory essentially explains that inflation results from the "class struggle", i.e. , rising money wages of workers as a result of their strength from trade union organization causes the prices of all commodities to rise. The neo-Ricardian theory of inflation is basically an extension of their theory of crisis (the Glyn-Sutcliffe and Brody-Crotty "profit squeeze") and this theory locates the cause of crises and inflation not

in the law of value and the laws of motion of capitalist development but rather in the "excessive" wage demands of workers and the relative strength of the trade union movement. The weakness of this theory is not only analytical in nature but also ideological and political since like bourgeois economic theory and ideology it blames the working class for the inflationary process. In this sense there can be no doubt that the Bauer-Kautsky theory was more advanced than the neo-Ricardian theory of today because it at least understood the necessity of rejecting the bourgeois theory and explaining how proletarian solidarity was needed in the face of workers declining real wages and immiserization caused by inflation.

The above discussion clearly indicates that the fundamental task that Bauer set himself of developing a Marxist theory of inflation which would counter the bourgeois theories remains just as important for today's revolutionaries as it was for the social democratic movement before World War I. It is in this sense that we can look at the debate on goldproduction and inflation as a marked advance over most of the so-called Marxian theories of inflation today and it is in that sense that it is essential for Marxists today to go backwards in time to appropriate the theoretical advances in that debate before we can attempt to move that discussion forward to an explanation of the epoch of inflationary capitalism that we are experiencing today.

III. Notes Towards a Theory of Inflation

The following notes are not intended to represent a finished theory but, rather, are only my preliminary, unfinished, and tentative thoughts on how to begin to develop in outline-form a theory of inflation.

1. The theory of inflation must show that inflation is a necessary consequence of the fundamental contradiction of capitalist production. Any theory which attributes the occurrence of inflation to improper fiscal and monetary controls is idealist. The task must be to show that inflation necessarily arises from the essential character of capitalist production.

2. The theory of inflation must begin with an analysis of the different forms and functions of money. Non-Marxist theory is unable to grasp the essential cause of inflation either because they accept the quantity theory of money (classical political economy and "monetarism") or because they assume away money by using a numéraire (marginalist theory à la Walras and neo-Ricardian theory).

3. Money performs the roles of a measure of value, a medium of circulation, an instrument of hoarding, and "world money". The money commodity must perform all of these roles.

4. The money commodity gold while socially determined by virtue of historical circumstances and its physical characteristics becomes necessary for commodity circulation and becomes the universal equivalent.

*role of money commodity
in the economy?
(Pavlov 1900?)*

Mark to
quantity
37
planning
con. of
able
money

5. Within the process of the circulation of capital it becomes possible for paper currency to be issued. Paper currency stands for a certain amount of gold and there is a relationship between the two which at any point in time is fixed.

6. There is a limit within the sphere of circulation to the issuance of paper currency. Gold is the universal equivalent but paper currency can only be a symbol for a certain amount of gold. If the issuance of paper currency does not conform to the amount of gold and if paper currency is just "printed up" indiscriminately without regard for the money commodity then this separation represents the abstract formal possibility of inflation.

What
is
the
medium

So
based

7. Within the process of circulation it is easy to show how if an economy is on the gold standard the separation of the money commodity gold from the amount of paper currency issued will result in the formal possibility of inflation. (Factors such as a rising productivity of labor in the gold-producing sector /a permanent trend/ and historical circumstances relating to the magnitude of gold, i. e. new discoveries /a temporary condition/ are disregarded here).

8. Within the process of the circulation of capital even if the economy is no longer on a "gold standard" the role of gold as the universal equivalent still exists and there is an indirect and yet a necessary relation between the amounts of gold and paper currency which must conform to the law of value. Even off

the gold standard the market at any point in time will determine an exchange relation between the two. If paper currency is printed up without regard for the amount of gold in store then here again there is the abstract possibility of inflation. As yet inflation is only a possibility and not a necessity because we are at this stage of our analysis confining our study to the process of capitalist circulation. Only within capitalist production as a whole can the necessity of inflation be seen. It is important to note that so far we have only seen the formal possibility of inflation and the formal possibility is different than the cause and necessity of inflation.

9. It is within the process of capitalist production as a whole that the cause of inflation can be located. The law of value through an increasing organic composition of capital necessarily brings about the law of the tendency for the general rate of profit to decline (LTGRPD). This represents the fundamental contradiction inherent in the capitalist mode of production.

10. The LTGRPD causes significant and in some cases insurmountable difficulties for the valorization requirements of capital, Credit is a means by which capitalist production can temporarily fulfill its valorization requirements.

11. Credit is used to promote the upswing by furnishing necessary money capital to permit the expansion in the circuit of industrial capital. While the credit cycle is used to help fulfill the valorization and expansion requirements of capital

it is bound to and dependent upon the industrial cycle as a whole. The two cycles can appear to run independently, however, the crisis will bring the two cycles into relation with one another.

12. The necessity of inflation is to be found in the functioning of the credit cycle and inflation is necessarily brought into being by the valorization difficulties of capital. The issuance of paper currency beyond a normal relation to gold and the inflation that follows can thus be seen as a "counteracting tendency" to the LTGRPD.

13. Inflation also cheapens wages and the value of the commodity labor power, and thus increases relative surplus value. This does not mean that inflation is purposely used to "cheat" laborers but rather is an instrument that helps capital meet its expansion requirements.

14. The special nature of the money commodity gold, however, sets a limit to the degree of inflation. Paper money can only be printed up to a certain extent beyond which its separation from gold results in the destruction of money. At a certain point paper currency fails to perform all of the functions of money and it is at this moment that the fact that paper currency is not the universal equivalent becomes obvious.

15. The destruction of money accompanies and is the mirror side of the destruction of capital. The crisis serves as the mechanism which brings the credit and industrial cycles together

and destroys both money capital (in all of its forms) and industrial capital.

16. When the capitalist economy is off the gold standard it gives the illusion that the bond between the money commodity gold and paper currency is completely broken but this illusion is shattered during the crisis when gold forcibly reasserts itself as the universal equivalent. During the crisis it is gold which becomes valuable and paper currency is made relatively worthless. Thus the wild speculation in gold that accompanies the crisis. It is the crisis that demonstrates the necessity of gold and the limits to the issuance of paper currency.

17. The capitalist state has promoted inflation. While it can not choose inflation which is necessary for the valorization requirements of capital it can affect the pace of inflation.

18. At some point inflation loses its effectiveness as a "counteracting tendency" to the LTGRPD and can no longer help to meet the valorization requirements of capital or check the growth of the industrial reserve army. At this point inflation becomes transformed from an aid to an obstacle for the valorization of capital. Thus you have the simultaneous and unprecedented growth of inflation accompanied by an increased amount of unemployment. Therefore the thrust by the capitalist state is now being directed at controlling inflation since its growth threatens the expansion of capital. This, however, is not without its contradictions as the elimination of inflation would result in a capitalist catastrophe. Additionally whereas

inflation was brought into being through the dynamic of the credit cycle it now serves as a brake for the expansion of both credit and industry.

*The second
part
of the paper*

FOOTNOTES

1. Otto Bauer Die Teuerung: Eine Einführung in die Wirtschaftspolitik der Sozialdemokratie, p. 74
2. Eugen Varga "Goldproduktion und Teuerung" Die Neue Zeit, 30 Jg, 1911/1912, I. Bd, p. 213
3. Ibid, p. 213. Translation from Lars Mjöset The Debate on Goldproduction and Inflation Within Austrian and German Social Democracy Before World War I, p. 3
4. Mjöset, pp. 3-4
5. Otto Bauer "Goldproduktion und Teuerung" Die Neue Zeit, 30 Jg, 1911/1912, II. Bd, p. 4. Translation from Mjöset, p. 4
6. Mjöset, pp. 4-6
7. Ibid, pp. 6-7
8. Karl Kautsky The High Cost of Living, p. 18
9. Ibid, p. 33
10. Ibid, p. 20
11. Ibid, p. 19
12. Ibid, p. 33
13. Ibid, pp. 84-85
14. Ibid, pp. 34-35
15. Ibid, p. 52
16. Ibid, pp. 22-23
17. Ibid, p. 23
18. Ibid, pp. 24-25
19. Ibid, pp. 25-26
20. Ibid, p. 90
21. Ernest Mandel Late Capitalism, pp. 425-426

22. Ernest Mandel Late Capitalism; Bruno Fritsch Die Geld- und Kredittheorie von Karl Marx; Suzanne De Brunhoff Marx on Money; Duncan K. Foley Notes on Marx's Theory of Money and On Marx's General Theory of Money.
23. Barbara Bradby "The Value of Gold. A note on Michael Williams' Economics" Bulletin of the Conference of Socialist Economists, Vol. V #2 (14) October 1976; Michael Williams "An Analysis of South African Capitalism - Neo-Ricardianism or Marxism" Bulletin of the Conference of Socialist Economists, Vol. IV #1, February 1975; H. Wolpe "Capitalism and Cheap Labour Power in South Africa: from Segregation to Apartheid" Economy and Society, Vol. I, #4, 1972
24. Michael Williams "An Analysis of South African Capitalism - Neo-Ricardianism or Marxism"

BIBLIOGRAPHY

- Bauer, Otto Die Teuerung. Eine Einführung in die Wirtschaftspolitik der Sozialdemokratie, Wien, Verlag der Wiener Volksbuchhandlung Ignaz Brand & Co., 1910
- "Goldproduktion und Teuerung" Die Neue Zeit 30 Jg, 1911/1912, II Bd, pp. 4-14, 49-53, 246-247
- Bradby, Barbara "The Value of Gold, A Note on Michael Williams' Economics" Bulletin of the Conference of Socialist Economists, Vol V #2 (14) October 1976 *Capital and Class*.
- De Brunhoff, Suzanne Marx on Money, New York, Urizen Books, 1973
- Foley, Duncan K. Notes on Marx's Theory of Money, unpublished manuscript
- On Marx's General Theory of Money, unpublished manuscript
- Fritsch, Bruno Die Geld- und Kredittheorie von Karl Marx, Frankfurt, Europäische Verlagsanstalt, 1968
- Hilf, Rudolf Finance Capital, London, Routledge & Kegan Paul, 1981
- J.v.G. "Goldproduktion und Preisbewegung", Die Neue Zeit, 30 Jg, 1911/1912, I Bd, pp. 660-664
- Kautsky, Karl The Economic Doctrines of Karl Marx, New York, The Macmillan Company, 1936
- The High Cost of Living, Chicago, Charles H. Kerr & Company, 1915
- "Gold, Papier, und Ware", Die Neue Zeit, Vol. 30/31, pp. 836-847, 886-893
- Mandel, Ernest Late Capitalism, London, NLB, 1975
- Mjøset, Lars The Debate on Goldproduction and Inflation Within Austrian and German Social Democracy Before World War I, unpublished manuscript
- Spectator "Zur Frage der Goldproduktion und Teuerung" Die Neue Zeit, 30 Jg, 1911/1912, II Bd, pp. 550-553
- Varga, Eugen "Goldproduktion und Teuerung" Die Neue Zeit, 30 Jg, 1911/1912, I Bd, pp. 212-220

Williams, Michael "An Analysis of South African Capitalism -
Neo-Ricardianism or Marxism" Bulletin of the Conference of
Socialist Economists, Vol. IV #1, February 1975

Wolpe, H. "Capitalism and Cheap Labour Power in South Africa:
from Segregation to Apartheid", Economy and Society, Vol. I,
#4, 1972

New School for Social Research
Fall 1981 - Eco 208 S

Lars Mjøset

THE DEBATE ON GOLDPRODUCTION AND INFLATION WITHIN AUSTRIAN AND
GERMAN SOCIAL DEMOCRACY BEFORE WORLD WAR I

A presentation of some untranslated texts.

The debate on goldproduction and inflation developed from practical concerns about developing social democratic economic policies in Austria during a period of rapid inflation, immediately before World War I. (The debate ran 1910-12).

The debate took off from a chapter in O. Bauers book "Inflation" (1910) - with the undertitle: "An Introduction to the economic policies of the Social Democrats". The first part of the book analyses several causes of inflation and one of these is the decreasing value of gold, due to technical progress in the gold-extracting sector. (The other causes discussed in the book can be seen in the translation of the table of contents in ~~Blaugs~~ book, below). The book is evidence of an increasing awareness - on the side of the social democrats - of the movements of the realwage (which according to Bauer was sinking). It was of course of supreme importance to the social democrats to defeat bourgeois theories implying that growth of the wage-share was a cause of inflation.

Bauers discussion of goldproduction was criticized by the bolshevik E. Varga in the theoretical journal of the German Social Democracy, Die Neue Zeit (The new times). According to Varga technical progress in the goldproduction did not influence the pricelevel, it only generated increasing differential rents within the goldmining sector. (In fact Varga (p.220) labeled Bauers theory "bourgeois", because it tied inflation to some faraway, uncontrollable, technical, exotic, southafrican causes. Varga obviously wanted to point out more "local" causes, but in this debate he never comes up with his own alternative.) Varga also used empirical data to support his argument.

Two head social democrats, Otto Bauer and Karl Kautsky, wrote articles in Die Neue Zeit to reject Vargas analysis. Bauer tried to specify the mechanism whereby changes in the goldextraction influenced the rest of the (world) economy, through equalization of the rates of profit. Kautskys arguments seems to be the only part of this debate available in english. (The book must be a development of his arguments in the article(s) he wrote in this debate). Apart from this, Varga was also criticized by the anonymous "J.v.G.". All these rejections did not bring in much empirical evidence, while a last partaker in the discussion ("Spectator") agreed theoretically with the critics, but claimed that under the present, historical circumstances, Varga was in fact partly right. Hilferding also seems to have been involved in the debate on Vargas side, though not employing Vargas rent-argument.

In one way this debate is oldfashioned: many features of the labour theory of value that we now see as problematic, was taken as granted. On the other hand it is superior to recent debates on value theory: it revolves around contemporary, political problems (concerning the spelling out of alternative economic policies). It is also oldfashioned since it takes the goldstandard-system as a universal necessity, but then again superior to recent debates, since it actually takes up the problems of money, gold, inflation, etc. - whereas the sraffian critique of the labour theory of value has led away from such questions.

Since the Kautsky-book is the only one from this debate that is translated, I have chosen to give a detailed presentation of only the non-translated articles. (And this presentation is more detailed than just a twopage summary, but I suppose this will be tolerated).

Bauer's original formulations

Bauer's arguments are mostly given the form of verbal models. Most of the time he seems to think of one country (nationstate) with a gold-extracting sector, but it is often clear that he also applies this as an analysis of the world-market situation. A gold-standard-system is presupposed: in foreign trade everything is paid directly in gold, in domestic circulation papermoney, etc. is also used, but those can all be exchanged with gold. In the influence of gold-production on the pricelevel, Bauer sees the essence of capitalism, as Marx described it: "Money develops from slave to master. Out of a pure helper money becomes the god of commodities." (Marx, Crit.of.Pol.Ec., 1859).

Since the price of a commodity is its value-relation to gold, Bauer finds two causes of inflation related to gold:

1. Decreasing costs in the gold-extraction sectors lowers the value of gold. That is: increasing productivity, less labourtime per unit gold. According to Bauer this will also decrease the productionprice of gold, and since gold and commodities are exchanged due to the production price, this means that the prices of production of all other commodities will rise.
2. Because of technical progress in the gold-extraction sector, the surplus of mine-owners will rise, and this will generate an excess demand, pulling prices even further up.

Empirically Bauer also points out that the costs of gold-extraction has been sinking the latest years, partly due to cheaper labour: chinese kulis, etc. imported to southe-african gold-mines. Bauer concludes:

The decline of extraction costs in the south-african goldmines is probably one of the causes of contemporary inflation. We must today give out more money for each commodity, because every piece of gold today contains less social labour than before. (1910, p.39f).

We should also note Bauers political conclusions: (i) A struggle for indexation of wages is necessary. (ii) International solidarity is necessary (if the chinese kulis squeeze the costs of south-african goldmines, then the european pricelevel would sink ??) (iii) Inflation

is a consequence of the arbitrary powers of gold within the capitalist mode of production. Workers must understand that only a socialisation of production will free them from these arbitrary powers.

Vargas critique of Bauer

Contrary to Bauer, Varga claims to "prove that changes in the gold-extraction can have no influence on inflation" (p. 213).

Varga discusses two theories that holds the opposite position: (1) quantity theory, and (2) production cost theory (which is Bauers solution).

(1) The quantity theory says that since the amount of gold in the world has increased enormously the last years, all commodities exchange against a greater amount of gold than before. - This is perhaps right with regards to papermoney not tied to gold. But if we presuppose goldstandard, then the theory would only be correct if we have an absolute excess of gold, that is: the amount of gold (minus the amount used for industrial purposes) grows at a faster rate than the national product. Varga asserts that this is not the case, in fact, his suggestion that there's an absolute lack of gold (that is: excess demand for gold by the banks) in this respect is important also for his argument further on. (This absolute lack is the reason why a part of the circulation is accomplished by gold, the rest by "goldsigns" like cheques, banknotes, etc. - an increasing amount of gold would therefore only lower the latter part of the means of circulation).

(2) The production cost theory is Bauers approach. Varga quotes Bauers conclusion (1910, p. 39f, quoted above, p.2). The point here is that even if gold does not accomplish all circulation, the prices will rise (following technical progress) since gold is the "ideal means of calculation" (ideelles Rechengeld). Vargas reasons for not accepting this theory is that, contrary to Bauer, he views gold as a commodity yielding rent. That is: gold falls under type B in the following classification:

A. Freely reproducible commodities: production can be increased without increasing production costs. Prices are here determined by socially necessary labourtime. Technical progress in such sectors will decrease the marketprice.

B. Not freely reproducible - rent-yielding - commodities: production can be increased only through increasing production costs (e.g. agriculture, with absolute shortage of soil). Prices here are determined by production costs in the least-yielding fields of production (with respect to goldproduction: the poorest mines) that can be commercially utilised. Since we're talking about the production of the general equivalent, the maximum production costs of 1 oz. gold is 1 oz. coined gold. If you establish yourself in gold-extraction and your mine yields 1 oz. gold with productioncosts less than this, then your mine is not the poorest and you receive a differential rent. The production costs

of a mine is primarily dependent on the gold-content of the ore, as well as on the depth of the mine. (Varga gives empirical evidence of this, p. 218). These production-conditions differ extremely from mine to mine, that is: underneath the maximum costs there is no systematic variation of costs. Now Varga argues that technical progress will not affect the gold produced under poorest conditions/ Therefore, the only consequence of such progress is an increase in the differential rent of some of the mine-owners. The regulating price of gold remains the same (1 oz. coined gold invested must give a return worth at least the same, i.e. 1 oz. gold). With technical progress it could then happen that even poorer mines would be utilised. But this only means that the former poorest mine now would receive some kind of differential rent. The regulating price of gold would only sink if too much gold was extracted, it would then increase and the poorest mines would be closed down. But - as we already have noted - Varga suggests that empirically there exists an excess demand for gold. Therefore there is - in contrast to freely reproducible goods - no competition in the gold production. Gold produced at lower costs doesn't push the price down, it yields the same regulating price, giving the mine owner and/or capitalist increasing extraprofit in the form of differential rent.

Varga points out that Bauer seems to have recognised this, since he as a second cause mentions the increasing income and demand from mine-owners, etc. (thereby presupposing a constant price of gold). But against this Varga points to the following arguments: (i) This new demand is primarily directed to luxury products, (ii) or towards investment-goods, therefore wagegoods would be unaffected. (iii) Goldmining-capitals are a decreasing percentage of capitalists on the world scale. - Therefore the only element in Bauers theory that was theoretically plausible, is not empirically sound. Vargas conclusion: "Changes in gold production is not the cause of inflation" (p. 220).

Bauer's reply to critics

First Bauer mentions that he accepts Kautskys rejection of Hilferdings arguments.

As a reply to Varga, Bauer points out that it is necessary to define more precisely the social mechanism through which the "law of prices" manifests itself. That is "in what way the sinking value of gold results in inflation (p. 4).

Decreasing costs of production - general case. - Bauer first likes to remind us about the mechanism through which prices are adapted to new production-costs, within commodity-production in general (abstracting from goldproduction).

Bauer sets up a (verbal) model with an industrial sector and an agrarian sector, both based on capitalist principles. Initially the rate of profit (from now on r , respectively r_i and r_a) $r=r_i=r_a=15\%$. Sector I now introduce machinery, the costs of production then sinks by 10%.

If prices remain unchanged, this gives us $r_i=27,7\%$, $r_a=15\%$. Through competition within sector I, r_i is reduced to $r_i=21\%$. Bauer then looks at the distribution of investments. Before the introduction of machinery, sector A absorbed 30%, sector I 40% of total investments. After they absorb respectively- 25% (A) and 45% (I) - since $r_i > r_a$. That is: capital flows into sector I, but this gives an excess supply in sector I, therefore r_i settles at $r_i=16\%$. Since this change in the flow of investments also generates excess demand in agriculture, r_a jumps up to $r_a=16\%$.

Now the final level of the rate of profit depends on several factors (and this isn't that important to Bauer's argument): the influence of a smaller reserve army and increasing costs of raw materials. - Bauer gives the following systematic account of the whole process:

<u>Stage</u>	<u>Industry</u>	<u>Agriculture</u>
I Share of total capital	40 %	30 %
r	$r_i = 15\%$	$r_a = 15\%$
II Production costs	Lowered	Constant
r	$r_i = 27,7\%$	$r_a = 15\%$
III Competition	Increasing	Decreasing
r	$r_i = 21\%$	$r_a = 15\%$
IV Change in the share of total capital	40%+5%=45% (increasing)	30%-5%=25% (decreasing)
V Change in demand supply	Increasing, Prices sink	Decreasing Prices increase
r	$r_i = 16\%$	$r_a = 16\%$

According to Bauer (referring to Bauer 1010, p.13-18, where this is counted as another cause of inflation) this reflects a real process: agrarian production has stayed behind in recent economic development, industry has grown faster than agrarian production.

Decreasing costs in one industry seem to increase prices generally (Bauer refers to Marx, Das Kapital, Vol.III, p.199 ff and Marx, Theorien, vol.II, 2, 38-40, both: old editions). From the discussion above Bauer concludes that the following holds for all commodities:

1. Decreasing costs (in industry A) changes the distribution of capital on different branches (or sectors).
2. Demand/supply-relations are changed. The supply of commodities A increases, the supply of all other commodities decreases.
3. The prices of commodity A sinks, all other prices rise.

This process is in fact the reduction of market prices to prices of production via demand/supply-fluctuations. Further on Bauer will investigate whether this also holds for gold. But already at this stage of his argument, he claims to be able to point out the main flaw of Vargas argument. Vargas accused Bauer of believing that decreasing

production costs automatically determines the increase in prices. But as Bauer has shown it is not so simple: decreasing costs influence prices only through changes in the relation between supply and demand, generated through the redistribution of social capital (p. 8f). Varga doesn't understand that this is a question of the "mediating links" (Zwischenglieder). So the answer to the question of the influence of gold-extraction can only be found through an analysis of the changing relations of supply and demand, generated by the costdecrease in gold-extraction/

The case for gold-extraction. The poorest goldmine yields gold worth 1 150 000 mark, with total costs of 1 000 000 mark. Rate of profit is $r_g = 15\%$. (As a result of Vargas critique, Bauer here takes differential rent into account: the mine here described get a differential rent, i.e. it yields a surplus product worth more than 150 000 mark). Then a new machine is introduced, more productive but with the same costs: the mine now produce 1 300 000 mark (in gold). r_g goes up to $v_g=30\%$. Therefore a flow of capital is directed into gold-extraction. This results in utilisation of even poorer mines.

Whereas before 1% of total capital was employed in gold-extraction, now 2% is. The distribution of capitals between the 2 branches has changed. What are the effects on commodity markets? Demand has increased (from mineowners, rentiers, etc.!). Supply has also increased, but slower than it would have done if there had been no technical progress in gold-extraction. The G-sector has occupied a part of the accumulation-fund (p.10). "Therefore, the supply of commodities has increased at a slower rate than it would have, without technical development in the gold-production". - This is the first phase of the process: increasing demand and decreasing supply generates inflation, thereby also increasing the rate of profit.

This brings up the difference that Bauer seems to find between the influence of technical progress in gold-extraction as opposed to commodity production in general. In the general model with A- and I-sector, a decrease in costs lowers I-prices and causes A-prices to rise, because of the change in distribution of capital towards these two sectors. In the gold-extraction-model, on the other hand, all prices rise, and - this is crucial to Bauers argument - here there's not just a change in the distribution of capital within the sphere of commodity-production, but now "the share of total commodity-production out of total capital has decreased" (p.11). (Just a short note for discussion here: Didn't Bauer state that gold takes part in the profit-rate-equalization just like any other commodity? How can he now argue that goldproduction is not a part of commodity-production?)

Now, the process goes further: Increasing rate of profit generates prosperity. The turnover-rate is lowered (the share of production in total turnover-time is increased, p.11). Demand for workers and capital goods increase. Capital hunger for more credit and this is possible to get since goldproduction has increased. The amount of accumulated surplus-value has increased. The following two factors then contribute to inflation: (a) Increasing credit lower the rate of interest. This stimulates activity in the construction sector, the state and the local governments (p.11). (b) Faster accumulation of surplus-value: expansion

of all branches of production: increasing demand for labourpower, consumption goods, diminishing reserve-army. Workers have the opportunity to struggle for higher wages. Sections with low organic competition of capital $(c/v)_l$ is hit harder than those with a high composition $(c/v)_h$. More new capital (than before) now flows to $(c/v)_h$. Total (c/v) therefore increases. Prices of $(c/v)_l$ -industries rise at a faster rate than $(c/v)_h$ -industries.

According to Bauer inflation increases the rate of profit, but it also produces "counteracting tendencies", like (i) increase in the price of raw materials, (ii) rising (c/v) (as already mentioned). This sets a limit to the increase of r . (But as Bauer notes (p.13) workers will not generally manage to fully protect their realwages against inflation, this is therefore no counteracting tendency.)

But costs in gold extraction has now increased because of more expensive means of production and labourpower. Also: poorer mines are now utilised. Contrary to in other industries, r_g has decreased. The gold-sector no longer receives an extra-profit. "The equalization of profit-rates is completed." (p.12).

Technical progress in gold production did rise the rate of profit in the gold mines above the average rate of profit. Such a disparity is not tolerated in the process of competition between capitalists. Competition leads to a new distribution of capital, which again equalizes the rates of profit, as it on the one hand increases the rate of profits in commodity-production (since it increases prices), and on the other hand decreases the rate of profit in gold production (since it increases costs of production). The result of this process is that gold again is exchanged with commodities in relation to prices of production, that is, in such a way, that gold production again gets the same share of social surplus-value (per unit capital) as all other commodity producers gets. This equalization of profit-rates was generated through the increase in commodity-prices. (p.12 f).

At this stage of his reply, Bauer rises his main objections against Varga:

Varga is right saying that since technical progress in gold extraction results in utilisation of poorer mines, the price-regulating costs of gold remain the same: But, says Bauer, one must study how this comes about, one should not just state the final result. The main flaw in Varga's argument is his undifferentiated assertion of no competition in the gold industry. One has to distinguish between competition within a sector (the reduction of individual prices to a common market-price), and competition between sectors (the building of production prices, containing a general rate of profit for all sectors). With respect to the former, it is correct that there's no competition in the G-sector, but this is not right with respect to the latter. There's no restrictions on capital flows to the gold-sector, if this shows a temporarily higher rate of profit. The law of average rate of production is valid also for the gold-sector. Therefore sinking costs in gold-production generates a change in the exchange-relation between gold and commodities (i.e. inflation), until the rates of profit are again equalized.

In a second part of the article Bauer discusses Hilferding's assertions. The flaw in Hilferding's argument can - according to Bauer - be traced

back to his polemic against the quantity theory of money. This theory says that prices are determined by the amount of circulating money. Against this Hilferding points out that the money is taken out of circulation by banks. This leads Hilferding to believe that only an increasing amount of circulating money can raise prices. Contrary to this Bauer takes the sphere of production as his point-of-departure:

We deduce increasing prices not from the relation between circulating money and exchangeable commodities, but from the distribution of capital on gold-production and commodity-production. We rely not on the quantity theory, but on the law of equalization of rates of profit. We therefore do not presuppose increased circulation of money. (p.51).

Against this Hilferding seems to assert that the G-sector does not take part in the equalization of rates of profit, and that it therefore receives absolute rent.

But according to Bauer this is the case only for branches of production that does not attract new capitals, even when there are possibilities of extra-profits, (e.g. absolute scarcity of tillable soil).

Hilferding points to the fact that the amount and value of circulating money is determined by social circulation value ("die Menge des umlaufenden Geldes, also auch der Wert dieser Menge, durch den gesellschaftlichen Zirkulationswert bestimmt ist", p.51). But this presupposes, says Bauer, constant value of a unit money, But if this value sinks, we need more money to accomplish the circulation, even if the credit system is improved and turnover shortened.

This is an appearance of the fact that the prices is not a simple reflection of the value of commodities, but the mirroring of the commodity-value in the value of gold. If the mirror changes, then so also the picture in the mirror (p.51).

Empirically, Bauer finds it difficult to decide whether this influence is really working. He cannot accept Vargas empirical account. To study the influence of the gold-sector, one would have to look at all the industries producing inputs to this industry, and study the degree to which these have been directed away from commodity-production into gold-production. The labour allocated to these industries, is faux frais of capitalist production: production of exchange-values, not use-values. Inflation lets us pay for this:

The greater amount of social labour allocated to gold-extraction, the more severe (drückender) is inflation. (p. 52).

Political consequences:

- there's no need for tariffs protecting agrarian production (in Austria), since agrarian prices on the world-market now increase.
- struggle against imperialism: goldhunger is one of the roots of imperialism.
- socialists should point out that inflation proves that the masses are "slaves of the gold".
- capitalists use goldproduction as one of many means to cut realwages.

REFERENCES

Otto Bauer, Die Teuerung. Eine Einführung in die Wirtschaftspolitik der Sozialdemokratie, Wien 1910, 100 p, esp. pp. 37-44.
(Inflation. An introduction to the economic policies of the social democracy).

Eugen Varga, "Goldproduktion und Teuerung", Die Neue Zeit, 30 Jg, 1911/12, I.Bd, p.212-220. (Goldproduction and Inflation)

J.v.G, "Goldproduktion und Preisbewegung", Ibid, p.660-4.
(Goldproduction and movement of prices).

Otto Bauer, "Goldproduktion und Teuerung", Neue Zeit, 30 Jg, 1911/12, 2.bd, p.4-14, 49-53 (246-7).

Spectator, "Zur Frage der Goldproduktion und Teuerung", 212-220, Ibid.

Karl Kautsky, The High Cost of Living, Changes in the Goldproduction and the rise of prices, Chicago: C.H.Kerr & Co, 1915 (german edition 1913??)

Contents of Bauers book, The Inflation...

Vorwort (Introduction)

1.part: The international causes of inflation

1. The development of the productive forces	5
2. The Anarchy of production	12
3. The organisation of producers	18
4. Trade and Speculation	27
5. Money	37
6. Inflation in the world economy	41

2.part: State intervention in the movement of prices

7. The international exchange of commodities	45
8. The tools of economic policy	49
9. Tariffs and trade-agreements	55
10. Industry-tariffs	60
11. Agrarian Tariffs	81
12. Inflation in Austria	91

3.part: The Working Class and Inflation

13. Wages and commodityprices	87
14. The struggle against inflation	94