# IMPERIALISM, DRIVEN BY THE FALL IN THE RATE OF PROFIT.

*When I first set out to write this article, I contemplated including a critique of Luxemburg, Lenin and Hilferding. On reflection, I have settled on a more sedate article which focuses on Marx's Reproduction Schemas in Volume 2, which incidentally gave rise to the modern System of National Accounts, to show that as in all things capitalist, imperialism is born out of the movement in the rate of profit.*

*"The ultimate reason for all real crises always remains the poverty and restricted consumption of the masses, in the face of the drive of capitalist production to develop the productive forces as if only the absolute consumption capacity of society set a limit to them."* (Marx Volume 3 Das Kapital Chapter 31, page 615. Penguin Edition) This is one of Marx's most quoted quotes on the cause of capitalist crises. Here Marx identifies the issue as not one of overproduction, but of underconsumption. He not only refers to the impoverished masses but to society as a whole, which is why the whole quote is necessary, not only the opening line.

It is important to distinguish the three primary forms of consumption which takes place in society. (1) The consumption of the masses, or in other words, workers in possession of wages. The consumption of the capitalist class who own and control the surplus of society and who can consume it either (2) unproductively or (3) productively. The restriction on workers consumption is of course the level of wages. With regard to the capitalist class the restriction on their productive consumption is the rate of profit.

We can add a further rider. The greater the inequality in society, or what is the same thing, the more restricted the consumption of the masses, the greater will be the propensity for consumption to restrict the development of capitalism. Inequality bequeaths the capitalist class with an engorged surplus. This means that any changes to their consumption will have a greater impact on the economy than would be the case were workers to enjoy a larger slice of consumption. A simple example will verify this. If workers consume 60% of the output of society, leaving a 40% surplus, and the capitalist class fails to consume a quarter of this surplus, this will yield a deficit in consumption of 10%. But if the capitalists enjoy a surplus of 60% a failure to consume a quarter of this surplus will yield a deficit of 15%.

The failure to consume does not lie on the side of the working class. They do not have the luxury of consuming or not. It lies squarely on the side of the capitalist class who own and control the surplus. Thus it is more accurate to say that the immediate cause of all economic crises, not the ultimate cause, is the failure by the capitalist class to consume the surplus of society. Clearly in a system driven by the profit motive, the key to understanding this failure to consume the surplus of society lies in the realm of profits.

When in possession of the surplus of society, the capitalist class can choose to invest some of this surplus revenue (productive consumption) or they can consume the rest as luxury consumption (unproductive consumption). In a cycle of rising profits, the capitalist class tends to increase their investments (productive consumption) expanding the economy, and in the face of declining profitability they tend to reduce or even withdraw their investments. We will have reason to look at this in the tables below.

However it is not a simple division as far as the capitalists go - invest more or consume more. The development of capitalist production is associated with the rise in fictitious capital. Thus on the side of unproductive consumption we have speculation; the purchase and sale of bonds, shares and mortgages, and or, leveraged speculation using instruments derived from these primary sources of fictitious capital.

Strictly speaking therefore, the unproductive consumption of the capitalist class needs to be split into two - luxury consumption and speculation.

Why is this important. The capitalist class feel richer not only because of their dividends and rents, but because of the movement in the price of their fictitious investments. Generally speaking, the price of these fictitious instruments responds to the business cycle, rising with the rise in the cycle and collapsing with the fall in the cycle, itself driven by movements in the rate of profit. Thus, fictitious gains or losses act as an amplifier, boosting the personal consumption of the capitalist class on the up, and depressing it on the down. Currently, we are at the most critical point in history, because the capitalist class stands before the biggest fictitious juggernaut they and their central bankers have ever amassed.

Thus what we are dealing with is an antagonism between production and consumption caused by capitalist private property, that and that alone. With regard to imperialism, many Marxists have seen imperialism as the necessary consequence of this antagonism between production and consumption, as the means of overcoming this overproduction by finding new sources of consumption abroad.

**Simple and Expanded Reproduction.**

The starting point for any exploration of the sources of production and consumption is Marx's reproduction schemas found in Volume 2, under the headings Simple and Expanded Reproduction.

The modification here to Marx's original tables found in Volume 2 of Das Kapital, first appeared in an article I wrote at the end of 2015. In effect I turned these tables into modern input-output tables making them easier to grasp. I have further refined the tables in this article to ensure that **s** + **v** equals the output of Department 2 and Department 3. I have also divided the original Department 2 into Departments 2 and 3, the former housing the articles of consumption destined for workers consumption exchanged against **v**, and the latter housing the articles of consumption to be consumed by the capitalists exchanged against **s**. Without this division, there can be no division between capital and revenue, nor therefore, how any of the revenue that forms s can be converted into capital and vice versa. The importance of so doing will become clear upon examination of the Tables below, where the effect of this transformation is seen. https://theplanningmotivedotcom.files.wordpress.com/2015/10/socialist-reproduction-pdf.pdf

We emulate Marx's original tables, only this time the figures have been doubled so that dept. 1 produces 12,000 rather than 6000, dept. 2 produces 6000 rather than 3000. Together Dept. 1 and 2 represents society's entire output which means their combined total of 18,000 represents the annual social product or commodity product in Marx's words. **c** = constant capital (means of production) while **v** = variable capital (the equivalent of wages) and **s** = the surplus product.

**c** in Table 1 = 12,000 which represents the annually produced value of the means of production. This equals the output of Dept 1. Of this 8000 is employed in Dept. 1 where the means are produced and used to produce more means of production and 4000 is employed in Dept. 2 to help produce articles of consumption.

The output of Dept. 2 is 6000 and it swops 4000 articles of consumption with Dept 1 to acquire its 4000**c**. What was so magnificent about Marx's first input-output tables is there is no duplication to be found. **c** is reduced to 8,000 in Dept 1 because 4000**c** is taken in Dept 2. Likewise, 4000 **v** + **s** is taken in Dept 1 reducing **v** + **s** in Dept 2 to 2000 **v** + **s**. This is the basis of the National System of Accounts.

**Table 1 (simple Reproduction).**

| DEPT. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 8000 | | 2000 | | 2000 | | 12000 |
| 2 | 4000 | | 1000 | | 1000 | | 6000 |
| **Inputs** | **12000** | | **3000** | | **3000** | | **18000** |

What I have done is to adapt Marx's tables into actual input-output tables. The bottom shaded row is the input section, and the vertical shaded column is the output section. What goes in and what comes out. Because of simple reproduction, inputs must equal outputs, because the economy is not expanding.

What is important to note as well, is that the total (v + s) amounting to 6000 (3000 + 3000) equals the output of Dept 2 amounting to 6000. (v) when it is converted into wages can only be spent on articles of consumption by workers and likewise (s) which represents the surplus revenue of the capitalist class can once again only be spent on articles of consumption in this case luxury goods.

In order to examine the transition to expanded reproduction, a rearranging of the above table is required. Instead of two departments we will present three. This will be achieved by subdividing department 2 into two distinct departments now called 2 and 3. Both are still producing articles of consumption, but now we distinguish those articles that enter into the consumption of workers and those that enter into the consumption of the capitalists (luxury goods). Dept. 3 now deals exclusively with the articles of consumption destined for the capitalist class. The reason for doing this will become clear.

**Table 2. (Splitting Dept 2)**

| DEPT. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 8000 | | 2000 | | 2000 | | 12000 |
| 2 | 2000 | | 500 | | 500 | | 3000 |
| 3 | 2000 | | 500 | | 500 | | 3000 |
| **Inputs** | **12000** | | **3000** | | **3000** | | **18000** |

We note immediately that the totals have not changed. The output of 3000 in department 2 is equal to the total of (v) and the output of department 3 is equal to the total of (s), though to be sure the nature of the articles are different, herring in department 2 versus caviar in department 3. In this table only (c + v) is shaded. That is because we are now separating capital from revenue. To reproduce commodities, employers must purchase means of production (c) and labour power (v). On the other hand, when they consume surplus value or (s), it is gone. They have eaten, played and travelled or simply squandered the surplus produced and need revenue from the next round of production to once again eat, play and travel.

Now of course it is most unusual for the capitalists to consume their entire profit or (s). They don't only want to be rich, they want to be richer. So we can expect that they will not consume all of the proceeds of department 3 but save some of it in order to expand their capital. Out of their hoard of cash, they could set some aside for the purposes of expanding production. In other words, instead of unproductively consuming all 3000, they now decide to invest 500, reducing their unproductive consumption to 2500.

We will assume there are no technical impediments to doing so. Instead of building yachts the shipwrights now build barges and instead of the builders building mansions they now build factories and warehouses, and instead of carriages engineers produce machinery. Instead of the courtiers wasting their time bowing

and scraping before their lord making him feel even grander, some of them now bow and scrape before machines in the newly built factories producing useful products for sale.

As a result of this new repositioning of labour power and means of production, our table looks like this (Table 3). Dept 3 has lost 500 while Dept 1 has gained 310 and Dept 2 has gained 190. The allocation has been governed by the need to keep (v + s) proportionate to the outputs of Dept 2 and 3. In real life, competition around demand and supply would deliver the same solution.

The additional capital of 500 has been applied to departments 1 and 2 in a manner that retains their value composition. If we look at the bottom inputs we note that we retain the 12,000 + 3000 + 3000 as before. But we note the vertical outputs have changed and no longer correspond. This is the virtual or latent output which is different. Departments 1 + 2 have the potential to expand production as we expected, while department 3 will contact, again as we expected. This has occurred because workers and means of production, the factors of production, have shifted from department 3 to Depts 1 and 2. Dept. 3 lost 400c while Dept. 1 gained 250c and Dept. 2 gained 150c. Likewise Dept. 3 lost 100v while Dept. 1 gained 60v and Dept. 2 gained 40v. All the proportions remain unaltered. (The total change is 600 because of the +100**s** of revenue which has shifted between departments with the reallocation of labour.)

**Table 3. (Transitional stage)**

| **DEPT.** | **c** | **+** | **v** | **+** | **s** | **=** | **potential outputs** | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8250 | | 2060 | | 2060 | | **12370** | (+370c) |
| 2 | 2150 | | 540 | | 540 | | **3230** | (+230v) |
| 3 | 1600 | | 400 | | 400 | | **2400** | (-600s) |
| **Inputs** | **12000** | | **3000** | | **3000** | | **18000** | **(0)** |

The social product has not changed, it remains at 18,000 which means we remain transitional between simple and expanded reproduction But while quantity has not changed there has been a qualitative change. The departments are now geared up to change their outputs. What has changed is the amount of capital available for current production. If we look at the shaded part of the vertical column under outputs in Table 3, we find the output of Dept. 1 has the potential to increase by 370 and that of Dept. 2 by 230 at the expense of Dept 3 once production commences. If we then compare these amounts to the shaded part at the bottom, the amounts no longer correspond. The input capital (shaded bottom) amounts to 15,000 and the output capital (shaded right) amounts to 15,600 of which 500 is new capital and 100 new surplus. Capital has increased from 15,000 to 15,500 (setting aside the additional 100s) an increase of 500 or 380c + 120v. There are now more machines and workers than before in departments 1 & 2 and less in department 3. This shift must have taken place before production commences.

Moving onto Table 4. The output of this capital amounting to 12370c and 3230v now becomes the actual input for the current round of production and the transition from simple to expanded reproduction is complete. In Table 4, production under the new conditions has now taken place and there is a new output.

**Table 4. (Expanded Reproduction) (+4.8% growth in GDP)**

| **DEPT.** | **c** | **+** | **v** | **+** | **s** | **=** | **outputs** | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8495 | | 2230 | | 2230 | | **12955** | (+585c) |
| 2 | 2275 | | 600 | | 600 | | **3475** | (+245v) |
| 3 | 1600 | | 400 | | 400 | | 2400 | (0s) |
| **Inputs** | **12370** | | **3230** | | **3230** | | **18830** | **(+830)** |

The first point to note that the social product is no longer 18,000 but 18,830. In other words the social product has grown for the first time by 830 from 18,000. We have thus entered the realm of expanded production. Last year 18,000 this year 18,830 an expansion of 4.8%. This is due to more of the output going back into production and less being wasted because of unproductive consumption by capitalists.

Moving on again. The capital output of Departments 1 & 2 has expanded yet again in Table 4. The total capital has increased by 585c + 60v or to 645 compared to 500 before (Table 4 shaded area in Outputs column). In other words, not only is production expanding, but it is expanding by larger absolute amounts. Here we have to assume that there is a reserve army of labour able to feed the growing demand for labour power and we assume the entire surplus formed in Dept 1 & 2 is reinvested once again.

The final point to note is that (v + s) has to equal the output of Dept 2 and 3. We recall that wages and the uninvested surplus can only be spent on articles of consumption. Thus in Table 2 (v) = 3000 and (s) = 3000 making up 6000 and as none of the (s) is invested at this stage they add up to 6000, equal to the output of Dept 2 + 3. But, let us see if Table 4 conforms to this assumption. There (v + s) adds up to 6460 while the output of Dept 2 + 3 add up to (5875). The difference is the original 600 (s) which was invested, and which must be continuously thrown back into production until such time the capitalist class decides to convert some of this capital back into revenue, or what is the same thing, reduce their investment such that means of production and labour power migrate back from Depts 1 & 2 to Dept 3. (The actual figure of 585 is the victim of rounding up errors.)

We can explore this in greater detail in Table 5. Now it is the case that the capitalists decide to reduce their investments and increase their unproductive consumption. Let us say they seek to decrease their investment by 300 in order to increase their consumption by 300. In this case Department 3 will swell to 2700 and Departments 1 & 2 will reduce by 300. Broken down this means 180 (c) from Dept 1 and 60 (c) from Dept 2 are reallocated to Dept 3 together with 45 (v) from Dept 1 and 15 (v) from Dept 2 (Table 5B).

Table 5A shows what would happen if no capital was withdrawn. In that case the total capital will swell to 17505, equal to 13765**c** + 3740**v**. However because capital has been withdrawn, Table 5B shows that total capital has reduced to 17145. Table 5A reflects the structural changes that have occurred, and it is the transitional point of departure because it has yet to affect production, as happens in Table 5B which marks the end of the transitional process.

**Table 5A. (Before the withdrawal of capital) (+5.7% growth in GDP)**

| **Dept.** | **c** | **+** | **v** | **+** | **s** | **=** | **outputs** | |
|---|---|---|---|---|---|---|---|---|
| 1. | 8895 | | 2435 | | 2435 | | **13765** | (810) |
| 2 | 2460 | | 640 | | 640 | | 3740 | (265) |
| 3 | 1600 | | 400 | | 400 | | 2400 | (0) |
| **Inputs** | **12955** | | 3475 | | 3475 | | 19905 | (1075) |

**Table 5B. (After the withdrawal of capital) (0% growth in GDP)**

| **Dept.** | **c** | **+** | **v** | **+** | **s** | **=** | **outputs** | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8715 | | 2390 | | 2390 | | **13495** | (-270) |
| 2 | 2400 | | 625 | | 625 | | 3650 | (-90) |
| 3 | 1840 | | 460 | | 460 | | 2760 | (360) |
| **Inputs** | **12955** | | 3475 | | 3475 | | 19905 | (0) |

As a result of less capital being deployed and a greater amount of revenue being extracted there is no growth in gross output between Graph 5A and 5B. All that has changed is that while the output of Depts 1 & 2 has shrunk, this fall is balanced by growth in Dept 3 from 2400 to 2760, a rise of 360 due to the relocation of 300 capital plus an additional 60 (s) being produced there instead of in Depts 1 or 2. Most importantly the social product no longer grows because less production is being returned to production in order to expand it.

Let us take the example further and assume another 300 in capital is converted into revenue.

**Table 6. (After the withdrawal of further capital) (0% growth in GDP)**

| Dept. | c | + | v | + | s | = | outputs | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8535 | | 2345 | | 2345 | | **13225** | (-270) |
| 2 | 2340 | | 610 | | 610 | | 3560 | (-90) |
| 3 | 2080 | | 520 | | 520 | | **3120** | (360) |
| **Inputs** | **12955** | | 3475 | | **3475** | | **19905** | **( 0)** |

Once again, that 300 conversion of capital into revenue, is sufficient to suppress any growth in the social product which remains stalled at 19905. Now it is important to note that despite the restoration of the luxury consumption of the capitalist class, previously 3000 now 3120, more caviar all round, the economy at 19905 is still 11% bigger than the 18000 figure before. Thanks to their workers the capitalists are now richer in capital and richer in their consumption. Cheers.

Let us take the penultimate look at what happens if the capitalists do not withdraw any more capital. In other words they allow the accumulation process to proceed uninterrupted once again. In that case the capitals found under the outputs column in Table 6 will apply as inputs.

**Table 7. (Expanded reproduction) (2.3% growth in GDP)**

| Dept. | c | + | v | + | s | = | outputs | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8750 | | 2410 | | 2410 | | **13570** | (345) |
| 2 | 2395 | | 630 | | 630 | | 3665 | (105) |
| 3 | 2080 | | 520 | | 520 | | **3120** | (0) |
| **Inputs** | **13225** | | 3560 | | **3560** | | **20345** | **(450)** |

We note that under this condition the economy resumes its expansion showing that the underlying process was one of expansion, previously inhibited by the capitalists converting capital into revenue. However, because of the reduction in the capital stock, the potential increase in output has been diminished and now stands at 2.3% growth, though this will accelerate should accumulation proceed unhindered. We assume that the economy is in the upward phases of the business cycle unlike below.

This leaves us with our final table which explains what happens when the crisis of profitability leads to the capitalists withdrawing investment altogether. Now there is no migration of capital to Department 3. Here we have the actual destruction of capital and with it a contraction in the economy as well as a reduction in potential future growth. We will assume a 1000 reduction in capital requiring a loss of capital 800 in Dept 1 and 200 in Dept 2. We note that in the output column found in Table 7, the stock of capital stood at 17235 which has now reduced to 16235 in Table 8.

**Table 8. (Contracting production) (-3.4% contraction in GDP)**

| Dept. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 8480 | | 2285 | | 2285 | | 13050 |
| 2 | 2260 | | 610 | | 610 | | 3480 |
| 3 | 2080 | | 520 | | 520 | | 3120 |
| **Inputs** | **12820 (-750)** | | **3415 (-250)** | | **3415 (-250)** | | **19650** |

We also note that the social output falls from 20345 to 19650 or by 3.4%. (Methodology note. The loss of capital is arrived at by subtracting the loss from the outputs in Table 7 not the inputs in Table 7. This is because the actual stock of capital prior to the loss has to be the total capital at the end of Table 7 and not at the beginning which the inputs row implies.)

One interesting fact is that provided no more capital is destroyed, outputs in Table 8 exceeds inputs. This means within capitalism there is an inbuilt mechanism suggesting that accumulation will proceed under circumstances in which capital is neither destroyed nor converted into revenue. This is due to the availability under outputs of an additional 240 in surplus value. This point should never be overlooked.

**The issue of productivity.**

One of the criticisms of Marx's reproduction schema is that it does not deal with the rise in productivity. This however is very easily resolved. In all the tables above the rate of exploitation has been held at 100% In table 8 above, (v) = 2265 and (s) = 2265 in Dept 1, which when divided against each other yields 100%.

If this rate of exploitation is to change then the price of the articles of consumption emanating from Dept 2 must be reduced. Only then can (v) be reduced without starving workers. For example if there is a general fall in the individual prices of the articles coming out of Dept 2, then it follows that the same wage goes further because it now meets lower priced products in the market. Therefore, employers should be able, depending on the balance of class forces, to drive down wages by say 10% without altering the traditional level of consumption by their workers provided prices also fall by 10%.

Generally the rise in the productivity of workers, and here we are not talking about harder or more intense work, is brought about by the introduction of more machinery and equipment. For this to happen, the output of Dept 1 where these machines are produced, needs to increase. We reject the assumption that during the course of expanded production new machines at new prices have emerged, requiring no alteration in the relationship between Dept 1 and 2. Instead, to keep our examples uncluttered, the assumption is that prices will not change until they are made to change, which is about to happen.

If Department 1 is to expand initially, more workers at the original level of productivity have to be employed. Ipso facto more articles of consumption emanating from Department 2 are needed, but at a time when the productivity of workers in Department 2 remains unaltered. If we focus on Table 7. The output of Department 2 amounts to 3560 and it is consumed by workers in Dept 1 (2410), Dept 2 (630) and Dept 3 (520). The ratio between Dept 1 and 2 is 3.8:1. We could assume there are 3.8x as many workers in Dept 1 as there are in 2. This ratio needs to increase if Dept 1 is to expand relative to Dept 2.

The solution is to be found in the outputs column. There the outputs exceed the inputs by 450. That 450 of additional capital need not be applied in the same proportions previously. More of it can be applied to Dept 1 than to Dept 2. In other words the additional means of production and the additional articles of

consumption can be located in their entirety to Dept 1. Here lies the secret solution. It is not about the direct exchange between Departments 1 & 2 during the course of production, but rather the market allocation of the surplus product at its end. In this sense the exchange takes place outside the normal exchange between the two Departments where means of production as inputs going into Dept 2 are exchanged for articles of consumption as inputs going into Dept 1. We are unconcerned whether owners in Dept 1 invest in Dept 2, or owners in Dept 2 borrow to buy the additional means of production.

We can observe these flows in the four joined tables below. In the first table the surplus product emanating from both Department 1 & 2 amounts to 450. In Table 7/1 this 450 is only applied to Department 1. The output of Dept 2 remains unaltered at 3665 but the output of Dept 1 expands from 13570 to 14125. There is an additional output of 555 means of production. Instead of the usual redistribution of 73% I to Dept 1 and 27% to Dept 2, now Dept 2 receives the full 555 I instead of the 150 it would have under the earlier arrangement.

This means that productivity will remain unaltered in Dept 1 but rise in Dept 2 because in this department for the first time the ratio between machinery and workers has changed. In other words the initial value composition of capital (c/v) in Dept 2 will have risen from 380% to 468% or from 2395/630 to 2950/630. This change is not due to a change in the number of workers or the hours they work in Dept 2, it is due to the additional quantity of means of production they are now working with. As a result of this additional quantity of means of production a rise in productivity in excess of 10% is assumed to take place in Dept 2.

**Table 7. (Expanded reproduction) (2.3% growth in GDP)**

| Dept. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 8750 | | 2410 | | 2410 | | 13570 (345) |
| 2 | 2395 | | 630 | | 630 | | 3665 (105) |
| 3 | 2080 | | 520 | | 520 | | 3120 (0) |
| **Inputs** | **13225** | | **3560** | | **3560** | | **20345 (450)** |

**Table 7/1. (Diverted investment) (2.3% growth in GDP)**

| Dept. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 9095 | | 2515 | | 2515 | | 14125(555) |
| 2 | 2395 | | 630 | | 630 | | 3665 (0) |
| 3 | 2080 | | 520 | | 520 | | 3120 (0) |
| **Inputs** | **13570** | | **3665** | | **3665** | | **20900 (450)** |

**Table 7/2. Productivity Change. (Transitional stage) (*c/v = 385%, r.o.e 100%)**

| Dept. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 9095 | | 2515 | | 2515 | | 14125 (200) |
| 2* | 2950 | | 630 | | 630 | | 4210 (345) |
| 3 | 2080 | | 520 | | 520 | | 3120 (0) |
| **Inputs** | **14125** | | **3665** | | **3665** | | **21455 (545)** |

**Table 7/3. Productivity Completion (*c/v = 523%, r.o.e. 124%)**

| Dept. | c | + | v | + | s | = | outputs |
|---|---|---|---|---|---|---|---|
| 1 | 9095 | | 2263 | | 2767 | | 14125 (200) |
| 2* | 2950 | | 564 | | 696 | | 4210 (345) |
| 3 | 2080 | | 465 | | 575 | | 3120 (0) |
| **Inputs** | **14125** | | **3292** | | **4038** | | **21455 (545)** |

The rise in productivity in excess of 10% means that the time taken to produce each item in Department 2 has fallen by 10% after accounting for the rise in (c). Products are now 10% cheaper. If wages remain the same each worker can now buy 10% more articles. But here we further assume that the employer claws back this rise in productivity resulting in wages falling by 10% so that workers consumption remains unaltered. In this event there is a 10% fall in variable capital across the board. This reduction in variable capital takes place in Table 7/3, the last table. Because the new value produced by workers amounting to 1260 has not changed, the reduction in (v) results in a rise in (s). In short there has been a rise in exploitation, the paid part of the working day has shrunk while the unpaid part has expanded. The previous rate of exploitation of 100% has grown to 124% or 696/564. In addition now that variable capital itself has fallen, the final rise in the organic composition of capital is 523% in Dept 2 or 2950/564.

The fact that the total value of articles of consumption destined for workers now exceeds the amount of variable capital by 918 allows for the expansion of employment in Department 3. This ties in with actual developments in real life. Any reduction in the value of labour power coupled to a rise in surplus value (inequality) is associated with increased employment in Department 3 which by its very nature is labour intensive, populated by servants both personal and professional. It is important to note, employment can now increase in Dept 3 without diverting variable capital from Depts 1 & 2. If that employment growth in Dept 3 dilutes the means of production there leading to a fall in the rate of surplus value in Dept 3 as well as productivity, that has no impact on productivity in production which is limited to Dept 1 & 2. Any productivity rises or falls in Dept 3 is inconsequential because its output is consumed outside of production by the capitalist class. Here we assume the complete unproductive consumption of this outstanding surplus by the capitalist class.

Throughout, we have tended to ignore Department 3. However, we have noted that whenever the surplus produced in Departments 1 & 2 has been reinvested in its entirety, the share of the surplus of society entering productive consumption has increased while that of unproductive consumption remains unaltered. We have also noted the resulting boost to capital and social output. Provided this is maintained all is well. If productive consumption falls but this fall is compensated for by a rise in unproductive consumption and thus an increase in Dept 3 then overall consumption is maintained causing only a deceleration in the rate of accumulation and output. The problem only occurs when the balance is broken, when either productive consumption does not rise or even falls, and when this is not compensated for by an increase in unproductive consumption. When that takes place then indeed some of the surplus of society will lie unconsumed rusting and rotting, and for this disparity between consumption and production to be overcome, a fall in production, commonly known as a recession, must occur.

**Credit money.**

Readers who have read my articles on Modern Marxist Monetary Theory understand that it is legacy value which circulates the current (new) value produced. (Note 1.) Legacy value equals the output of the previous period of production which has been sold and converted into money. It is legacy value in its monetised revenue form and preserved form that constitutes the bulk of the current money supply and therefore demand.

Immediately we are struck with a conundrum when viewing our tables, or at least those ones which deal with expanded production. Let us take Table 4 reproduced below. Here the current value of the social product amounts to 18830. When converted into money through sale it is equal to 18830. However, the

size of the social product in the following period covered by Table 5 has increased to 19905. The money which will be used to circulate this 19905 is the monetised revenue attached to the sale of the output from Table 4 amounting to 18830. There is thus a shortfall of 1075 in the money supply.

**Table 4. (Expanded Reproduction) (+4.8% growth in GDP)**

| DEPT. | c | + | v | + | s | = | current value | |
|---|---|---|---|---|---|---|---|---|
| 1 | 8495 | | 2230 | | 2230 | | 12955 | (+585c) |
| 2 | 2275 | | 600 | | 600 | | 3475 | (+245v) |
| 3 | 1600 | | 400 | | 400 | | 2400 | (0s) |
| **Legacy value** | **12370** | | **3230** | | **3230** | | **18830** | **(+830)** |

**Table 5. (+5.7% growth in GDP)**

| Dept. | c | + | v | + | s | = | current value | |
|---|---|---|---|---|---|---|---|---|
| 1. | 8895 | | 2435 | | 2435 | | 13765 | (810) |
| 2 | 2460 | | 640 | | 640 | | 3740 | (265) |
| 3 | 1600 | | 400 | | 400 | | 2400 | (0) |
| **Legacy value** | **12955** | | **3475** | | **3475** | | 19905 | (1075) |

The reader may ask why doesn't the 19905 in current revenue plus preserved value not exchange the current output of 19905? The answer is that money must pre-exist before it can circulate this output. It cannot be conjured up by the sale itself. Commodities must meet money already present in the market for exchange to take place. The sale cannot create its own money on the other side in order to sell itself. If this were to happen anyone could become a capitalist because no one would need capital to start a business. But capital is needed because while workers are producing new products they need to eat, clothe themselves etc. They need to consume goods previously produced. Thus during period 5 while workers are working up the new social product they need to maintain their labour power. Thus their employers need to have accumulated sufficient variable capital to employ them and to pay their wages each week or month while they are producing these new products. The same goes for the capitalists, they have to also consume while their workers are producing the new products. Thus the revenue being used to consume cannot come from the goods currently being worked up or being made ready for sale. It has to pre-exist. (Note 1.)

So if we take Table 5 as a period and assume it is of average length, i.e. 75 days, during this time what is being consumed has been produced earlier in the period covered by Table 4 or before. Once the output of Table 4 has been consumed, the sellers of this output will be in possession of 18830 in money. This 18830 in modern parlance is Gross National Income (includes depreciation) and when deposited, it forms the bulk of the money supply or M2. And this normally occurs prior to the completion of the 5 period. This will be the pre-existing money supply waiting to meet the output of 5 when completed and ready for sale.

However, 18830 is 1075 short when compared to the expanded output from 5 which amounts to 19905, and whose products will be consumed in the following period covered by Table 6. The same applies to the capital in circulation. Capital too has grown by 1075 from 16430 to 17505. How is that deficit covered? Answer, via the generation of credit money. This is why Marx placed such emphasis on the development of the credit system which today we describe as the financial system. Without it, capitalism could not have developed. Without credit money, consumption would have always fallen short of production, forming in this case an absolute barrier to the accumulation process. Because demand would have continuously

fallen behind supply, the only way to clear products would have been to slash their prices, and that would have meant a loss of surplus value.

Thus, what many Marxists have interpreted as a structural problem with reproduction itself, is really a financial problem brought on by the fact that consumption cannot take place before products have themselves been exchanged. Hence the need for credit money.

In terms of imperialism, it is only after the 2nd World War and the uncontested domination of the capitalist world by one imperial power, the USA, that a truly unitary global financial system was put in place. This arose from the Bretton Woods Agreement when the Dollar became the global reserve currency supported by the IMF and the World Bank. Of course Keynes proposal would have been better and longer lived, and it would have removed more obstacles to trade, but that would have diluted the interest of the USA.

**The rate of profit.**

Provided the capitalists consume the surplus of society either productively or unproductively, consumption will equal production. Should the capitalists convert more of their unproductive consumption into productive consumption, then the social product will expand faster and so too their capital. Should the capitalists convert some of their productive consumption into unproductive consumption then to be sure, the expansion in the social product and capital will decelerate.

It is the profit motive that regulates the division of the surplus into its productive and unproductive elements. The higher the rate of profit, the greater the propensity to expand productive consumption, i.e. investment, the faster the economy will grow. (Note 2.) However, the contrary is equally true. A fall in the rate of profit acts as a brake on productive consumption, on investment. Not only is there less investment, but the fall in profitability can be so severe that investment is idled, even withdrawn, and if withdrawn it means capital is actually destroyed through bankruptcy or rationalisation, and when that happens output must necessarily fall. (Recall Table 8.)

Thus there is only one cause for the breakdown between production and consumption, a cause which has haunted capitalism from its earliest days and that is the movement in the rate of profit. Capitalists will do everything in their power and that of their state, to preserve their capital and their profitability at the expense of competitors. One of those counter-vailing actions is imperialism.

It must be remembered that competition fractures the worldview of the capitalist. They end up with a fragmented outlook. A profitable capitalist experiences the lack of investment by another unprofitable capitalist as a fall in demand, as a contracting market. Their response therefore is to seek out new markets in which to sell. That is why a fall in profitability is a spur to creating a world market, to both create new markets or to conquer old markets. In the case of new markets the object is to exploit the conditions found there particularly the presence of much lower waged workers and in the case of established markets, to dispossess existing commodity producers particularly those with higher labour costs. It was the collapse in the profitability of US capital during the 1970s that was to create the new China in the 1990s, when US manufacturers shifted production from the US to China, converting themselves into wholesalers because they were now importers rather than producers.

Whatever the case, the periodic fall in the rate of profit, caused by investment in the means of production, which in turn leads to a collapse in investment and therefore consumption, results in production and consumption being torn apart periodically. This makes capitalism convulsive, a case of three steps forward

and one step back, but that destructive backstep is always imposed on society and it can be very costly indeed. It also explains why the growth of the global market is so uneven and disruptive.

Of course it goes without saying that the abolition of capitalist private property via a workers' revolution, abolishes the exchanges which keep production and consumption apart. In a communist society, where the "surplus" is controlled by society and no longer a tiny minority, it will be put to productive use to sort out humanity's problems and that of the planet, as well as the upliftment of all through agreed investments. Gone will be that indecent time, when because of the antagonism between production and consumption caused by profit, whole societies were ruined.

**Note 1.** Throughout this article the price of the commodities consists of c + v + s or preserved value plus value newly added, where the preserved value is the element replacing the value of the means of production used up, but which was produced previously or (c), and the new value taking the form of wages and the surplus (or undivided profit plus interest) or v + s. Thus, legacy value is always understood to mean preserved and value-added in the previous cycle of production. Which is why in Table 2, the preserved value remains unaltered at 12000 and the new value added remains unaltered at 6000 making the legacy value an unaltered 18000.

**Note 2.** It is not possible to derive the rate of profit from the above tables because it is assumed that all of (c) is consumed. This has been done to simplify and focus the modelling. In reality this does not occur. (c) comprises fixed constant capital and circulating constant capital. Fixed capital is machinery, equipment and structures, while circulating capital is materials, power and components. What enters into the price of the product or commodity is the depreciation of the fixed capital and that portion of the circulating constant which is consumed producing the new product. As depreciation normally takes place over 5 to 10 years, based on the economic life of machinery and equipment, the balance of un-depreciated fixed capital accumulates. If we were to assume a constant 100c of new investment with a depreciation rate of 10% then after a year one 90c remains, after year two 180c remains, after year three 370c remains, which is by now 3.7 times as much as the annual investment. It is this accumulation of the stock of capital which is one of the elements dragging down the rate of profit. Of course it is possible to model tables showing this. And it has been done. However this article assumes rather than proves (in accordance with the real world) that there is a periodic fall in the rate of profit which acts as the trigger arresting the consumption of the capitalist class and bringing disharmony to production and consumption. It appears that the biggest threat facing the capitalist mode of production are the capitalists themselves and their investing behaviour.

Brian Green 15th July 2021.