Kapital, Volume 3

Opening thoughts.

I’ve been doing a close reading of the third volume of Marx’s Capital. Since I have this blog, I thought it might be a good idea to write up a summary of each chapter as well as some of my own reflections as I make my way through the book. This blog has been great for forcing me to synthesize ideas from different books and to articulate my ideas clearly and simply. I sometimes feel like I’m back in school doing book reports. I guess there was a reason all those teachers made me do book reports: you learn better that way.

Several things led me to decide to tackle Kapital 3:
1. I just finished rereading the first volume of Kapital, following along with David Harvey’s online lectures. Volume one is such a great book, and I had such a good time listening to Harvey’s lectures that I felt inspired to tackle another volume of Kapital.

2. I have been thinking and reading a lot about the Transformation Problem but I’ve never actually read through all of Marx’s account on the subject, so I thought it was high time I actually went to the source. In my interview with Andrew Kliman he talks about the need to “let Marx speak for himself” instead of always relying on his interpreters.

3. I have been reading a lot about crisis theory without ever having read all the way through Marx’s account of the Falling Rate of Profit in Volume 3 of capital.

4. I am very curious to better understand banking and monetary phenomena from the Marxist perspective. Here on the internet we are inundated with Austrian/libertarian rants about the Federal Reserve. I have many critiques of these arguments. I am especially interested in making a thorough critique of that abomination “Zeitgeist Addendum” that is masquerading around the internet disguised as social theory, attracting all sorts of well-intentioned folks who don’t have the theoretical tools to untangle many problems with the film. But before I jump into that critique I want to have all of my theoretical tools together and for that I need a better understanding of how Marx treats monetary and banking phenomena.

Volume 3 of Kapital is an important book. It is in this book that Marx attempts to show how the abstract social relations between labor and capital worked out in book one and
book two are translated into the concrete, everyday forms we experience in reality. Throughout Marx’s work there is an understanding that the everyday, subjective experience of living in a capitalist society is not the full story. We may appear to be free, autonomous economic agents maximizing our utility in the marketplace, but underneath this subjective experience lies a network of social relations formed by these market interactions. An analysis of this network of interactions, of social relations, reveals deeper processes at work… processes of coercion, exploitation, and antagonism.

The powerful insights of Volume One of Kapital are based largely on an abstract analysis of the labor-capital relationship. But through abstract categories like relative and abstract surplus value, or the value of labor power, or the forces and relations of production, Marx is able to paint a very vivid picture of very real world phenomena: the battle over the working day, the condition of laborers, the transition to large scale industry, etc.

But there are also all sorts of other real world phenomena that aren’t explained yet, some which seem tricky to fit into the theory of value as it stands in Volume one, specifically the quantitative aspects of price and profit. And this is because Marx was extremely careful and precise in the way he built arguments. He couldn’t analyze every single relation within capitalism at the same time. He needed to make abstractions, to leave out some things in order to bring them back later on in the argument. In Volume 3 of Kapital Marx planned to bring back in some of those key relationships that he had to abstract from in the first two volumes, specifically the effects of competition between capitalists and the effect of this on price and profit. In putting these new variables into the equation Marx bridges the gap between the abstract and the concrete. All of the sudden, this abstraction called “value”, takes on a recognizable real world form. At the same time we become more acutely aware of what Marx is talking about in Volume One of Kapital when he talks about the “fetishism of commodities”: these abstract social relations can only be expressed through these subjective interactions in the marketplace, yet this very expression hides much of the true nature of these relationships creating the illusions the make up our bourgeois ideology.

If I may summarize the structure of the argument very briefly: In Volume 1 Marx begins by discussing the relation between independent commodity producers. Here he abstracts from any class relation. This allows him to conclude that commodities exchange at their socially necessary labor time.

He then adds the capital-labor relation into the picture and we see that C-M-C (commodity-money-commodity) gets inverted to become M-C-M (money-capital-money) when labor power becomes a commodity. This leads Marx into a long analysis of the labor capital-relation leading to concepts like relative and absolute surplus value as well as many other power insights.
In volume 2 of Kapital Marx analyzes the way a capitalist economy reproduces itself. This involves analyzing the way commodities and values travel through the circuit of capital. We learn that in order for the system to reproduce itself very specific conditions are required.

Finally in Volume 3 Marx begins to talk about the social relations within the capitalist class. It’s these relationships that help bring the theory of value in volume one, a theory which makes a lot of intuitive sense in its powerful description of the antagonistic dynamics between capital and labor, into a more substantive description of the quantitative nature price and profit and of the qualitative relations between different parts of the capitalist class.

Perhaps you have had this experience: you are sitting in a coffee shop reading Volume One of Kapital and you look at your cup of coffee and wonder “Does the price of this coffee reflect it’s socially necessary labor time?” The first thing that occurs to you is that the chain of purchases and production going all the way back to the Nicaraguan farmers that picked the coffee beans is a long a complex one. Much of the profit made from selling this cup of coffee is split between the owners of the coffee shop, the bank that owns the mortgage on that coffee shop, the merchants who transported that coffee, etc. So in Volume 3 Marx intends to figure out how all these different relations among money-capitalists, landlords and productive capitalists work out. In other words, he plans to explain the relation of profit, interest and rent. In Volume one this division of profit between capitalists was abstracted from because Marx was there concerned only with the creation of surplus value, not the way that surplus was divvied up between capitalists.

Within this topic there is another more specific aspect of the relation between capitalists to be explored: average profits. This is a phenomena that bothered a lot of the classical economists. If there are no barriers to the flow of capital, profits tend toward an average because anyone can invest in anything. If my industry makes above average profits other people will start to invest in that industry, eating away at the profit margins, until my industry is making average profits. This however causes problems for the labor theory of value as we left it in Volume One where we assumed that commodities traded at their socially necessary labor time. If only labor creates value, shouldn’t labor-intensive industries with high proportions of workers to machines make more profits than highly automated industries with low proportions of workers and lots of machines? In Volume 3 Marx solves this riddle.

But his solution wasn’t good enough for some people. I hope to address some of these criticisms as I move through this project. I suspect that much of the issue really has to do with the logical structure of Marx’s argument, where abstractions are being made, the order of these abstractions, etc. So I will try to be very specific about this structure as I record my thoughts on each chapter.
The biggest difficulties in reading Volume 3 may be the writing style and the fact that it is an incomplete work. Marx died before finishing volumes 2 and 3. Engels published these books by compiling all of Marx’s unfinished notes, adding his own material to fill in gaps where needed. But parts of volume 3 read like they are unfinished. There are repetitions of arguments characteristic of a first draft, sections are missing, and some sections are just pages and pages of excerpts that Marx had made from factory reports and legislative commissions occasionally adding his own notes as to what he intended to say about them.

Because Marx didn’t finish writing Volume 3 much of the writing can be dry. Gone is much of the vivid, compelling language of volume one, though there are moments of literary brilliance. There is a lot of painfully slow, boring mathematical detail. So just getting through some chapters has been difficult for me. At other times I have had difficulty putting the book down.

But I hope to get through most of it and leave some sort of record of it all here on my blog. At the time of writing this introduction I have plowed through the first 180 pages without hurting myself, so I think that is a good sign. I already have great fears about the chapters on rent as I hear they are pretty impenetrable. We will see… I hope that posting my thoughts here may serve some useful purposes for others as well. I am no expert on Vol. 3 but I think that I have some useful things to say about it and I at least can summarize the arguments in a cohesive way. I would hope that others having difficulty with some chapters might be able to find some useful insights here. I also would hope that some folk may leave their own reflections on these chapters here- that this part of my blog might serve as a useful jumping-off point for discussion of Volume 3 and the issues surrounding it. I would hate for any readers to think that this blog can serve as a substitute for reading the real book itself. To really understand Marx you have to read him for yourself.

Engels Preface, 1894

(This post is part of an ongoing project: a close reading of volume 3 of Kapital, one post per chapter. I hope that others who are tackling this book for the first time might find my summaries and thoughts useful. I also hope that others might leave their own thoughts, criticisms, help, etc. here so that this blog might become a good collective resource for those brave souls who take on Vol. 3.)

The first part of Engels’ introduction describes the laborious process Engels confronted as he attempted to put together a draft of Volume 3 from Marx’s incomplete manuscripts and notes. It sounds like a nightmare of a task. There were fully completed drafts for some sections, others were only unorganized notebooks. Chapter 4 contained only a title and thus Engels was forced to write the entire chapter himself. Rather than
repeating Engels’ description of the process here I will try to make note of these things as I write on each chapter.

We now know that Engels made more revisions to the text than is immediately apparent. For a brief article on this try reading “Engels’ Edition of the Third Volume of Capital and Marx’s Original Manuscript” by Michael Heinrich (http://www.marxists.org/archive/marx/works/1894-c3/editorial/heinrich.htm). He rearranged a lot of text, rephrased sentences, added a lot of subheadings, etc. There is debate as to how much this changed the meaning of the text. Some argue that a look at Marx’s original manuscripts (not made available until in 1993) shows that the Marx’s ideas are not nearly as neatly worked out as they are in Engels’ edition especially in regard to crisis theory. Another critique is that the idea of simple commodity production as an historical concept and not just a theoretical abstraction is mostly an imposition of Engels’ and not supported by much of Marx’s original text at all.

This all being said, Engels faced a nearly impossible task in trying to piece together Volume 3. There was a lot of pressure to produce a cohesive volume that could answer all of the unfinished questions left hanging by volume 1. Volume 1 makes necessary abstractions and assumptions that Marx claimed he would drop in later volumes. The completion of the theoretical project started in volume 1 required that these assumptions at some point be dropped.

Even with Engels’ revisions we cannot expect the theoretical tightness, the masterful attention to the form and structure of argumentation that we get in Volume 1 of Capital. On the other hand we know that Marx was working on Volume 3 at the same time that he was working on Volume 1. So the over-arching structure of the argument, the basic contours of the relations of the key concepts are there. But the smaller details of the argument aren’t always presented in the clearest way, and we are missing a lot of the stylistic flair of Marx’s finished works.

I am curious to see how standard the terminology, equations and ideas are throughout the book… to see to what degree Marx changed his thinking about things in the course of writing. I have often read that Marx changed his labeling of the theory of the falling rate of profit from a “law” to a “law of a tendency”. People sometimes claim this reflects an ambiguity in Marx about just how strong this tendency is. I would like to finally form my own opinion on this matter.

The rest of Engels’ Preface deals with the problem of Average Profits that I briefly mentioned in my previous post (“Opening Thoughts”). In his preface to Volume 2 of Capital (also edited by Engels after Marx’s death) Engels offered a challenge to the public to see if they could solve the problem of Average Profits within the labor theory of value. It was a theoretical problem that had daunted economists for some time. Even Ricardo hadn’t been able to solve it. In that preface Engels bragged that Marx had
solved the problem in the soon-to-be-published volume 3. But it took Engels another 9 years to publish that volume.

In this introduction to volume 3 Engels recounts attempts to solve the problem by those who replied to his challenge, ridiculing all of them. Of course Engels doesn’t solve the problem for us either. He is trying to pique your curiosity before you read Marx’s solution. This is his “teaser/trailer” for Volume 3.

I want to briefly describe each of these theories and Engels criticism of them here as I think there are things to be learned from them. First, to state the problem: The labor theory of value holds that socially necessary labor time is the only thing that creates value. Machines and raw materials may contain value, but they don’t create new value. They merely pass their values on to the product to the extent that they are used up in production. This means that an industry with a high ratio of machines to people would produce less value than and industry with more people and less machines. Marx calls this ratio the “organic composition of capital”. He measures it as c/v (c being constant capital-machines and raw materials- and v being variable capital- human labor.) So a firm with lots of machines and less people has a high organic composition. A firm with more people and less machines has a low organic composition. Firms with a high organic composition create less value per dollar invested than firms with a low organic composition.

The problem though is that in a capitalist society with no barriers to investments the profit rates of different industries with different organic compositions tend toward an average. In other words, a service industry with a low organic composition and a highly automated industry (like a laundromat) with a high organic composition all make the same rate of profit. For each dollar they invest in production they receive the same rate of profit, wether this dollar is spent on workers or machines. So how do we square this with the idea that only human labor creates value? The answer Marx gives us is a fascinating one and it clears up a lot of other issues about the labor theory of value as well. But we shouldn’t get ahead of ourselves….  

The first person whom Engels picks on is Lexis. Actually Lexis gets a rather sympathetic treatment from Engels who at one point wonders if he might be a “Marxist disguised as a vulgar economist”. It seems that Lexis’ arguments about the issue of average profits don’t stray too far from Marx’s at times. Lexis says that we can’t solve this problem on the level of the individual commodity’s value. We have to look at the total values of all commodities and the fact that this total value in society is distributed unequally between capitalists, laborers, landlords, etc. The capitalist when he invests gets a profit based on his investment in capital, regardless of the labor content of this investment. But Engels replies that this isn’t a solution to the problem at all, just a restatement of the problem. I suppose that what Engels means by this is that the mechanism by which this happens needs to be explained. At first glance Engels’ description of Lexi’s argument seems pretty close to what I understand as Marx’s take
on the issue: that aggregate equalities between total value produced by labor and total prices, total profits and total surplus value hold true but that competition between capitalists redistributes this surplus value evenly between capitalists. Is Lexis’ take incomplete because he doesn’t discuss the mechanism, competition, by which this surplus value is redistributed? This seems unlikely because in the next pages Engels says that it is common knowledge that competition is the mechanism of the equalization of the profit rate.

Lexis also critiques Marx’s theory of profits in the first place. He says vulgar economy offers just as probable an explanation: Capitalists charge more for their product than it costs. All sellers of commodities in the market place charge more for their commodity than the cost of production (what Marx will call “cost price”). The one exception, for Lexi, is labor which is forced to sell its commodity, labor power (the ability to work), at its production cost: the means of subsistence. In other words, wages go to pay for the reproduction of labor power, the buying of commodities like housing, food, and clothing that allow workers to come back to work the next day, but workers don’t charge an additional amount for their labor above this cost of means of subsistence. So, Lexi argues, this is the source of profit.

Lexis’ take on profits is not that far removed from the concept of profit that pervades a lot of our common thinking today. And, I think Marx would argue, this conception of profits grows out of the nature of capitalist exchange in the first place. This is what the fetishism argument is all about: the subjective experience of exchanging commodities in the market both creates and masks real social relations, class relations. When capitalists set prices for commodities they aren’t calculating the surplus value created by the workforce and adding that to the cost price. They aren’t calculating the socially necessary labor time. But the prices they are able to realize in the marketplace are dictated by the network of exchanges that comprises the market. And this network of exchanges contains several dimensions of class relations which all act upon the form of value to create price. So just saying, “profit comes from charging more for commodities than it costs to make them” doesn’t actually explain anything. Again, it just restates the problem.

Engels’ response to the argument is to point out that after workers first create enough value in production to pay for their means of subsistence they then create additional value above the cost of the their wages. This is the source of profit. On the side he takes a passing shot at George Bernard Shaw’s utopian socialism and the new ideas of Jevons and Menger (marginal utility) that had inspired Shaw. I wish he had elaborated more on this point.

Engels’ next victim is Dr. Conrad Schmidt. Schmidt’s attempt to reconcile the law of value and average profits leads him to propose that since constant capital (raw materials, machines, etc.) represents past labor this labor has the same command on the distribution of surplus value that variable capital (living labor) has. In other words, the
fact that capitalists make average profits regardless of their investment in constant or variable capital is because both inputs are labor inputs of a kind. The constant capital advanced is the “socially necessary materialized labor” in order to obtain a surplus. (I hope I have summarized this correctly.)

Engels begins by saying that this is an ingenious Hegelian construction but “like the majority of Hegelian constructions it is not correct.” I would love to know what he means by this. The rest of his critique of Schmidt is very useful to us. He first points out that the whole point of value theory is to distinguish between materialized and living labor (constant and variable capital.) Marx worked hard to demystify the bourgeois notion that factors of production like land and constant capital produce value by themselves. Marx argues that these factors of production while being necessary for the creation of value do not produce value. Only living labor can do this. Engels points out that it is well known that capitalists expect an equal return on their investments regardless of whether they invest in labor or machines. If Schmidt’s theory were correct it would actually invalidate the labor theory of value.

In a later paper by Schmidt he argues that competition is the mechanism which equalizes profit rates. Engels’ reply is, “duh.” We already know that this is what happens. If an industry is making higher than average profits additional capital will flow into that industry eventually eating away at those excess profits until the profit level is whittled down to the average. But Engels’ criticism is of Schmidt’s claim that this process is the same as the process by which an excess production of commodities causes their prices to fall until demand and supply average out at natural prices in accordance with the law of value. Engels doesn’t actually take the time to offer his own critique of this, just saying that Marx himself addresses this in Vol. 3. I will have to keep this in mind as I read because it is not clear to me why Schmidt is wrong in making this claim.

Engels begins his critique of Fireman by making some important reminders about Marx’s method. One must avoid looking for short, easy, sound-bite definitions in Marx. The definition of a term changes as we see a concept in relation to different things. For instance the definition of labor changes if we are talking about the labor-capital relation, or labor-labor relation, or labor-landlord relation, etc. The dialectical method is a relational one. Different levels of abstraction yield different insights into reality. It is a mistake to take one perspective, one relation, as the only determining factor in defining the nature of something. This is a common source of misunderstanding about what Marx really said about many things. People often take quotes out of context without explaining the level of abstraction Marx was working with. Engels’ example here is very useful. Marx begins his analysis of commodities by abstracting away from the labor-capital relation and just dealing with exchange of commodities by independent producers. People often wonder if this is a logical abstraction or a historical one. Engels tells us it is both: commodity exchange proceeds the labor-capital relation. My actual understanding is that the argument is a little more dialectical though… that the
elimination of barriers to exchange which allows the free operation of the law of value doesn’t really come about until capital appears on the historical stage. Marx later points out (p.177 Moscow edition) that exchange starts between communities before it penetrates into communities. This could be primitive communities, guilds, or slave societies… even trade between communist communities Marx suggests. More on this when we get to Chapter 10.

Fireman argues that firms with higher organic compositions sell their products above their values and that firms with low organic compositions sell above their values. The sum total of these sales equals the total amount of value produced. The sum total of profits equals the sum total of surplus value. Engels agrees with Fireman and says that this is the basic crux of the argument. But he thinks that Fireman’s explanation is missing a lot of important details and linkages and that this is due to his misunderstandings of Marx’s methods of abstraction.

Engels hates Julius Wolf. Wolf’s theory revolves around the theory of relative surplus value that Marx lays out in Volume 1 of capital. To review, relative surplus value is a way of increasing the surplus value extracted from workers without increasing the total number of hours worked (without hiring more workers or making lengthening the work day.) Capitalists do this by increasing the productivity of labor. This increases surplus value in two ways: in the long run it cheapens the means of subsistence lowering wages; in the short run it temporarily lets a capitalist produce more commodities for the same amount of money thus allowing him to make more profits.

Here is how Wolf thinks this helps us solve the problem of average profits. He says that since an increase in machines (increased spending of constant capital) increases the productivity of labor thus increasing relative surplus value, that this increase in surplus value will compensate for the decrease in value created by firms with high value compositions. Wolfe identifies high organic composition with high surplus value. It is clear from this that Wolfe, like a lot of people who have written about Marx over the years, doesn’t understand some of the most basic elements of Marx’s model. There is no direct, proportional relation between an increase in constant capital and an increase in surplus value. It’s not that for every dollar you spend on machines you get to pay one less dollar in wages. Also, a decrease in the means of subsistence, made possible through an increase in productivity, lowers wages for all workers and raises surplus value for all capitalists. This would raise the organic composition of all firms!

Engels has a good time trashing Wolfe. It is clear that he particularly hates the man. But since he seems to have been forgotten by history, let’s move on…

Loria gets a brief ribbing by Engels. Loria notices that merchant capital filches some of the profits away from industrial capital. Obviously merchant capital is unproductive labor (for the most part. More on this when we get to Marx on merchant capital.) So it makes a profit by dividing the surplus value of society between itself and industrial
capital. Loria thinks that this filching takes surplus value away from low organic capitals and redistributes it to higher ones. But he doesn’t explain how merchant capital knows how much to take from whom and how it redistributes surplus back to some firms. Later we will see that Marx abstracts away from non-productive capitalists that filch money away from industrial capital when he explains prices of production. That is, he examines the capital-capital relation that creates average profit before he examines the divisions in the capitalist class.

Our last victim is George C. Stiebeling of New York. Stiebeling points out that a change in the rate of surplus value will equalize profits. Stiebeling gives us a neat little mathematical example in which the profit rates in two firms are equalized because they have different rates of surplus value. The problem is that Stiebeling just assumes that by spending less on variable capital more surplus of the same amount will be created. He has assumed away the problem. The only way for his equations to work is if you assume that the amount of surplus value over total expenditures (c+v) stays the same. Ridiculous!

Thus we are left with Engels standing smugly over a pile of defeated arguments. But we shouldn’t assume that this is just an unimportant settling of scores with opponents forgotten by history. Engels is also challenging us, the readers, to be vigilant about how well we understand Marx’s argument and method. It is easy to make mistakes when reading Marx. So let’s summarize the warnings Engels gives us.

From Lexi we learn that profit doesn’t come from just setting prices above costs- that price is socially regulated by labor. This is the basic concept of the law of value. Marx’s goal is to prove that labor still regulates prices even with average profits. This means that total profit and total value are the same but that surplus value is redistributed via competition so as to equalize profits among capitals of different organic composition. But Engels says this is not enough of a solution… He says that everyone knows this. I am curious to see what more there is to know.

From Schmidt’s mistake we are reminded that constant capital doesn’t create value. This is the source of the puzzle of average profits in the first place. Labor and dead labor (labor embodied in commodities) are functionally different things. The goal of Marx’s value theory is to explain the social relations between people as they are expressed in things. To say that constant capital creates value is to be guilty of fetishism, of thinking a thing has social power by itself, outside of its social relations.

From Fireman and Loria we learn the importance of being constantly aware of the level of abstraction we are working with. In capital Vol. 1 we are dealing with the relation of independent commodity producers and of labor to capital. In Vol. 2 we are dealing with the relation of capital to the various stages of its circuit. In Vol. 3 we deal with all of these relations plus the relation between individual capitals and between different factions of the capitalist class. At various times in Volume 3 Marx moves in and out of
different levels of abstraction. We must be constantly vigilant about where we are at all times so as not to misunderstand his argument. Understanding these levels of abstraction will help us better address critics who base their critiques of Marx on misunderstandings of these levels of abstraction. At the same time we should always ask why a certain level of abstraction is necessary. Does Marx merely move from one level to another in order to abstract away from exceptions to his argument? How does he decide which relation to bring in at which point?

I.I Rubin (Essays In Marx’s Theory of Value) has a good response to this question that might be useful to keep in mind. He says that the order of abstractions in Marx deals with what relation presupposes what. The capital-capital relation presupposes capital-labor and commodity producer-commodity producer. The capital-labor relation presupposes relations between commodity producers. The relations between commodity producers does not necessarily presuppose any other relation. So this fundamental relation gives us the idea that price is directly proportional to socially necessary labor time. This value relation is then altered when we bring in the capital-capital relation, but this doesn’t mean that price ceases to be regulated by value.

As we are dealing with the basic equation for the rate of profit we must be clear about how variables relate to each other. Wolfe’s and Stiebeling’s foibles tell us that the is no necessary relation between c and s. We also must be clear about whether we are talking about an individual firm or all firms. Wolfe and Stiebeling may present equations that work in specific cases, if we hold certain variables constant or make them vary in a consistent way, but Marx is looking for an explanation of average profits that works for all cases. Hence we should be ready for him to present to us every single possible variation of the basic equation for the rate of profit. It will take about a hundred pages and it won’t always be that exciting.

So pour the coffee, pop the Adderol and get ready for a long explanation…

Part 1: The Conversion of Surplus-Value into Profit and of the Rate of Surplus-Value into the Rate of Profit

Chapter one: cost-price and profit

Marx begins by briefly reminding us of the the large-scale structure of his three volumes of Kapital. Each volume analyzes capitalism from different levels of abstraction delineated by different social relations. Volume 1 analyzed capitalist production and was therefore focussed on the labor-capital relation. Volume 2 analyzed the process of circulation and thus focussed on the inner relations of the various components of the circuit of capital. Volume 3, Marx tells us, will focus on the world of appearance capital takes in the world and thus will focus on the last piece of the puzzle: the relation of different capitalists to each other in competition.
With this remark about the “world of appearance” we are immediately reminded of Marx’s discussion of the fetishism of commodities in the very first chapter of Volume 1 in which Marx talks about the world of appearance created by market exchange and the underlying social relations hidden by it. Sometimes readers fail to understand the dialectical subtleties of the fetishism argument. To briefly summarize: If the world were all one big factory the productive relations between people would be direct productive relations. The division of labor, the apportioning of varying amounts of labor to different tasks, and the organization of production would be direct and transparent. This would be true regardless of whether the factory was run hierarchically or democratically. As Marx points out later in Volume 1, the internal workings of the capitalist firm are exactly this type of direct social relation (as are most historical forms of productive activity where people created their own means of subsistence rather than purchasing it in the market). But market relations between producers (whether these producers be capitalist firms or individual producers) are not organized in this direct, transparent way. When the market is used to coordinate the allocation of labor a very unique world of appearance emerges. The allocation of labor takes place through the exchange of objects rather than through direct social relations. Allocation of labor takes place not through a conscious plan but is coordinated through the indirect pressure of market forces. When individuals meet in the market they are not making decisions about the allocation of labor. They are merely exchanging commodities, seeking to fulfill their own needs and desires. While bourgeois economics sees this subjective, utility maximizing behavior as the starting and ending point of economic analysis Marx sees that behind these transitory, fleeting acts of exchange lies a network of social relations, social relations that result in the allocation of labor time in order to meet society's needs. It is the process of exchanging these things, these commodities, that creates and coordinates these social relations. Yet at the same time these social relations appear not to be social at all. They appear to be relations between individuals and commodities. Commodities seem to have a value all of their own (or as marginal utility theory holds, a value solely the result of the relation of individual desire and an object’s utility.) But Marx says this exchange value only exists because of the role exchange plays in the allocation of social labor. This need to apportion labor time is the ultimate regulating factor in determining the value of things. But this process goes on behind our backs making objects themselves seem to be bearers of social power. The social relations between people become relations between things.

It is common for people, on a quick read through the fetishism section in the first chapter of Volume 1, to think that commodity fetishism – this notion that commodities themselves have social power, detached from their social relations- is all about a world of illusion that obscures the underlying nature of capitalist social relations. Sometimes people think that commodity fetishism is some sort of ideological phenomenon that needs to be torn down to reveal the underlying reality. But Marx is saying something deeper. This world of illusion is a necessary part of the basic form of exchange. Social relations between producers in a market society can ONLY be expressed through the exchange of commodities. It’s not that commodities just appear to take on social power.
Commodities really do have social power. The really do have values that act upon people as a social force. Market social relations are “thing-i-fied” and physical objects are “person-i-fied”. When social relations take the form of things Marx calls this reification. So when the process of allocation takes the form of value and when value is expressed in money, money becomes reified. It takes on a social power that is real. It doesn’t matter if one is conscious of the social relation implied in money or not. The illusion is permanent, even if you know it is an illusion.

Throughout much of Volume 1 we hear from Marx about how the purchase and sale of labor power obscures the exploitative social relation between capital and labor. This obfuscation is not some convenient ideological side-effect. It is imperative to the basic notion of exploitation: that labor power is bought and sold in the market place at its value.

But there are other social relations in a capitalist society between buyers and sellers of other things. These market relations also play a part in creating the world of appearance that is our everyday experience of capitalism. Here at the beginning of Volume 3 Marx is telling us that by examining the market interactions between the various parts of the capitalist class we will get closer to seeing how this world of appearances is necessary for coordinating the underlying social relations of capitalism. This means that we are very concerned with how capitalists go about setting prices and making profits in the context of market competition. When capitalists enter into exchange how does the regulating power of value, of socially necessary labor time, determine what prices they set and what profits they make?

This is what Marx is setting out to explain- how this web of market interactions becomes a regulating force that bends the will of market actors to the law of value. So as we are reading through what at times may seem a dry and boring exposition on cost-price and the rate of profit we should always be aware that Marx is constantly trying to explain this inter-relation, or inter-regulation, between a world of appearance and an underlying social relation.

now on to the first chapter…

Marx’s first concern is to explain how the law of value operates upon the capitalist even though the subjective experience of the capitalist seems the opposite of the law of value. In case I have not made it clear before, the “law of value” refers to the idea that socially necessary labor time acts as the ultimate regulating force in exchange and production. The capitalist’s decisions regarding the purchase and sale of commodities are not based upon a conscious obedience to a law of value. The capitalist merely purchases one set of commodities and sells another for a higher price. Yet this law of value acts upon his sale and purchases in ways he is unaware. Like the fetishism of commodities, even if he was aware of the law of value he would still be powerless to act outside of it.
So Marx begins by looking at the way the capitalist perceives his purchase and sale of commodities. He begins by looking at the difference between the cost of production to the capitalist and the cost of the final batch of commodities sold on the market. The difference between these two quantities, of course, is profit. The capitalist purchases all the material elements of production (machines, raw materials, labor, etc.). This is his cost of production which Marx calls “cost-price” and represents with the letter “k”. The two elements of cost price are constant and variable capital represented by “c” and “v” respectively. Thus \( k = c + v \).

(To review, constant capital designates products of past labor: machines, raw materials, partially finished components, etc. Variable capital is the money laid out in wages to purchase the working time of the working class. These two components of cost price make up the cost of production for the capitalist. But they do not make up the total cost, or value, of the finished commodities. This is because of the unique properties of variable capital: while the variable capital laid out in wages goes to purchase a specific bundle of commodities which reproduce the laborer, there is no direct correspondence between the value of those subsistence commodities and the value produced by the worker in production. This surplus value, produced by the worker is what creates profit.)

While cost-price determines how much a capitalist must pay in order to produce a commodity this cost-price does not measure the total amount of labor expended in production. The total labor is what determines the final price of commodities. Here in volume 3 Marx makes the distinction between the cost of production to the capitalist and the cost of production to labor. Surplus value costs the capitalist nothing at all, by definition. Surplus value costs the laborer in unpaid labor. But in selling his labor power to the capitalist the worker’s body enters into the circuit of capital. His labor becomes an element of capital and so it appears as if capital itself, or the capitalist, is the creator of the commodity, and that cost-price is the actual price of the commodity.

[This idea of the cost of surplus value is an interesting one. I wonder if Marx expands on it elsewhere. When he says that the cost of surplus value to the laborer is unpaid labor- that workers pay for surplus value with their working lives- we get some insight into the way Marx conceives of value in the first place. In a system of simple-commodity exchange where each producer owns their own means of production the cost of a commodity is still \( c + v + s \). In the price they charge for their commodity the worker includes the price of the materials, \( c \) for constant capital, the price of their own means of subsistence, \( v \) for variable capital, plus an extra amount, \( s \) for surplus value, to compensate for their additional labor time. Later in chapter 10 Marx will describe this. I’ve been recently reading some of Kevin Carson’s “Studies in Mutualist Political Economy” where he attempts to provide a subjective framework for the labor theory of value. His arguments remind me, in some ways, of what Marx says here- that in addition to cost-price (\( c + v \)) the additional surplus value of a commodity, in a system of simple-commodity exchange, comes from the valuation that the worker makes of
his/her own surplus labor. But I think where Carson errs is in calling this subjective. He doesn’t understand Marx’s idea of fetishism- that objective laws are worked out through the subjective valuations of individuals in the market. Perhaps Carson’s big synthesis about subjective valuations is actually just an account of the micro-details Marx didn’t even consider interesting enough to elaborate on. The interesting thing for Marx is the way these subjective valuations in the market are structured by objective forms, the way the process of exchange creates a world in which we have no choice but to give our working-time a market price. How subjective are these valuations of labor-time really? By not understanding the notion of fetishism Carson falls prey to many of the mistakes Marx warned of. He assigns the “free choices” people make in a market some sort of determining agency without realizing the way the market structures these choices. Thus he treats the “subjective” valuation of labor as an ahistorical concept extending backwards through history. Marx argues the opposite, that the phenomenon of value is unique to markets and that this structure of market relations explains the unique subjectivity of market interactions. Although Carson provides a lot of useful rebuttals of Austrian criticisms of the LTV, in the end he falls prey to the basic false dichotomy of the Austrian position: the subjective-objective dichotomy. Marx’s treatment of value goes beyond such a simplistic dichotomy.

We can see how easy it is then to make the mistake in thinking that profit is just a result of marking up price above the cost of production. It is true that prices are higher than the cost of production. But this doesn’t mean that there aren’t regulating forces in the market that determine how much one can increase price above cost-price.

Cost-price measures the expenditure of capital. But the actual price of commodities measures the expenditure of labor. Marx makes sure to point out that cost-price isn’t just important for understanding capitalists’ subjective understanding of profits. It’s also important for understanding the way capital is reproduced. All of the capital laid out on constant and variable capital is consumed in production, it’s value passed onto the final product. If production is to commence again at the start of the next day that consumed capital value must be replaced. Commodities must be sold and the part of the value of those commodities which represents the cost-price must be reinvested in production.

But while cost-price is essential for reproduction it does not tell us anything about the creation of new value in production. Bourgeois economy has made many attempts to account for the fact that cost-price somehow increases itself and comes out of production as a higher value. But Marx says that these explanations which seem to endow capital with magic powers of self-expansion are illusions. It is the unique property of variable capital which accounts of this self-expansion of value. It was this devastating critique of capitalist production that drove bourgeois economists after Marx to attempt to find all sorts of other explanations for the existence of profit: roundaboutness, subjective utility, etc. And while Marx did not live to address all of these different theories we can guess his response. It would begin with the fetishism argument: ascribing social powers of value expansion to material objects is to deny the
role that value has in apportioning social labor. When we apportion social labor to fulfill social needs through autonomous market interactions we don’t need to be conscious of this process. The market regulates this apportioning of labor because labor takes the form of value. All we experience of value is our personal reaction to market prices. But to mistake this personal relation to prices as the source of value, as marginal utility does, is to be guilty of the most egregious fetishism.

In this chapter Marx’s explanation of the way in which capital self-expands through the exploitation of labor is quite similar to the argument in Volume 1, but there does seem to be a different emphasis due to the change in perspective in Volume 3. Constant capital transfers its entire value to the finished product to the extent that it is used up. Variable capital does not transfer its value to the product. The investment in wages that go toward buying means of subsistence is replaced by the body of the laborer. In other words, the groceries and housing bought by wages don’t create value. The living laborer does. When a capitalist spend less on constant capital less value is transferred to the final product. But when less is spent on variable capital this does not necessarily mean that the final product contains less labor time, less value. Thus, while variable capital enters into cost-price just as constant capital does, variable capital does not enter into productive capital. It is replaced in the productive capital by the body of the laborer.

(This may be an important point in the debate over the nature of unpaid domestic work in reproducing the worker. Is the housewife exploited because her unpaid labor is necessary for reproducing the worker? Surely such labor can lower wages but this doesn’t mean that this labor enters into the productive capital of a firm, that it is value creating.)

To the capitalist, constant and variable capital do the same thing. They both enter into cost-price in the same way, as ingredients of production that must be paid for at the beginning of production and whose replacement must come from the selling of the final commodity. The distinction between constant and variable capital is blurred. In fact the capitalist is more likely to focus on the distinction between fixed and circulating capital. Fixed capital is investment in machines, buildings, infrastructure, etc. that lasts for many production periods and transfers its value to the final product a little at a time. Circulating capital is entirely consumed in the production process. Thus constant capital like raw materials and variable capital both fit under the grouping circulating capital. This further mystifies the origins of surplus value.

Surplus value is an excess of value above cost price that returns to the capitalist by way of circulation. Marx is always adamant that value cannot be created in exchange. Even in the case of an unequal exchange (cheating, monopoly, etc.) there is no creation of value, just a transfer of value. The magic of capitalist exploitation is that more value is created, that the amount of value in society expands. But when at the end of a day full of investment and exploitation, the capitalist owns a quantity of commodities of greater value than their cost-price, this surplus value is not realized until the commodities are
sold in the market. It is in this sale in the market place that surplus value flows into the coffers of the capitalist.

This all creates several illusions. It makes it appear as if profit flows from exchange and not from production. Profit also appears as a return on total capital investment regardless of the proportion of constant to variable capital. After all, both variable and constant capital contribute equally to cost-price. This point will become important when we later discuss the phenomenon of average profit. When average profits are established then capitalists really do receive equal portions of surplus value regardless of the proportion of constant to variable capital they invest in. Profit really does seem to come from total capital itself and not from living labor. But here I am getting ahead of Marx…

So surplus value seems to spring equally from all investment in capital, even from investment in fixed capital. After all, all investment goes into cost-price and all cost-price is necessary for production to take place. A factory is just as necessary as a worker. All of the capital enters materially (physically) into the production process, regardless of whether it is used up. If a capitalist didn’t think one part of his capital was as productive as another he would decrease investment in that part until he was receiving the maximum, equal return on each investment.

So as not to be confused as to Marx’s point here we should make the distinction between the material elements required for production and their relation to value production. This is part of the distinction between social relations and the physical objects which embody these social relations. This distinction is at the center of the entire Marxist approach and the failure of bourgeois economy to understand this distinction is the center of Marx’s critique of bourgeois economy. Production has always required an interaction of human labor and the products of past labor. But only under capitalism do these things take the form of value. It’s obvious that machines, factories and other objects must materially enter into the production process. It’s obvious that they also enter into the cost-price of commodities. But just because they are materially required for the production of surplus value doesn’t mean that they create surplus value. It is the hidden nature of variable capital, a nature hidden by the very form of wage-labor itself, that explains the expansion of capital.

Marx says here “Because at one pole the price of labor-power assumes the transmuted form of wages, surplus value appears at the opposite pole in the form of profit.” (p.37). In the same way that the sale of labor power for a wage takes the form of an equal exchange in the market, an exchange which masks the exploitation of labor, the sale of commodities on the market for profit masks the phenomenon of surplus value.

Marx then points out that it is, of course, possible to sell a commodity below or above its value. This may at first seem an obvious point but it is also an important one. First, this makes it seem like the cost-price is the real value of the commodity… that profit is
merely the arbitrary raising of price above cost-price. And, of course, this is what happens in the short-run: a capitalist is free to set any price they want. But what prices can be realized in the market? Behind the free, fleeting exchanges of commodities between autonomous individuals lies a network of social relations created by this web of exchanges, one that constrains the actions of these individuals to set arbitrary prices. Marx is trying to show how this seeming freedom of exchange is regulated, in the long-term, by value. Bourgeois economy exists entirely in this fleeting moment of freedom when buyer and seller meet in the market. It treats this moment as eternal. But in the long-run this free exchange is regulated by the apportioning of social labor. The obsession with scarcity and utility come from this ignorance of long-run forces.

The second phenomena made possible from the possible sale of commodities above or below values is the phenomena of average profits. Here, at the end of chapter one, he is not in the right place in the argument to explain this fully. He merely brags that the understanding of this phenomena will allow him to solve problems that no economist in the past had been able to solve, namely how is is possible for labor-time to serve as the basis of exchange value in conditions of average profit. (I have sketched out this problem in my “Opening Thoughts” introduction to this series.)

In closing Marx takes some passing shots as some of his favorite enemies, Malthus and Proudhon, critiquing them both for thinking that profit comes from selling commodities above their values. Both thought that cost-price was the true value of a commodity and that profit came from an arbitrary setting of price above cost-price.

**Chapter 2 The Rate of Profit.**

The summary which begins Chapter Two serves not only to remind us of some important details about the way in which value is produced but also ties together several details that will be essential for understanding our analysis of the law of value in the context of competing capitals. We are reminded first that surplus value is created in production but only realized in circulation. This is a crucial point as it really helps delineate the essential contours of Marx’s argument. The world of appearance is dominated by fetishism. We think that the coercive and tantalizing power of the market, that value, is manifest in commodities themselves as a result of their specific properties. We think that capital itself creates value. And we think that the process of exchange itself can create a profit. The modern neo-classical idea that both sides of an exchange profit because of differences in subjective utility would be the most pathetic form of fetishism to Marx. Of course value must be realized in exchange. Of course we couldn’t have profit without entering the marketplace to sell a commodity. But without engaging in productive activity we would have nothing of value to sell in the first place. Marx reminds us a few sentences later that the capitalist only engages in production in the
first place in order to make a profit in the market and that this is only possible if there exists a commodity which can create more value than it costs: the worker.

The fact that value is produced by the worker but realized in circulation is important for our understanding of the theory of prices of production (see Part II). If surplus value is realized in the market then there is no guarantee that all of that value will be realized. A capitalist could realize more or less than the actual value of their commodity. This is precisely how average profits are realized.

The capitalist can’t employ workers without also employing means of production. After all, this is what makes him a capitalist- his ability to dominate the means of production and thus exploit wage labor. The capitalist must always purchase additional means of production whenever (s)he invests in workers. Thus every investment in variable capital is also an investment in constant capital. It becomes impossible to distinguish between the purchase of the worker and the purchase of the tools by which the capitalist dominates the worker. If the capitalist doesn’t suffer from the fetish that his profit comes from the market then he is likely to suffer from the fetish that surplus value comes from capital itself. That is, profit seems to come from investment in total capital and not merely from the variable portion. The mystery of profit is obscured. The indirect mechanism of the market once again draws a veil over the social relation behind it.

Profit, as Marx explains in Volume 1, comes from the excess of surplus value over the wages paid to workers (variable capital). Thus we represent the rate of exploitation: 

\[ \frac{s}{v} \]

where v is variable capital, money spent on wages, and s is the surplus value created by workers above the value of their wages. But if profit is really a measure of surplus value over the entire expenditure on capital, constant and variable, we will need a different equation:

\[ \frac{s}{v+c} \]

where c is constant capital.

This formula for the rate of profit, surplus value over the total capital invested, will become the focal point of the next several hundred pages. Marx will attempt to show how variations of the elements of this equation will produce different results- different worlds of appearance. In fact the rest of Part I will be devoted to showing how variations in surplus, variable and constant capital, produce different real world phenomenon. In the course of this painstaking exploration he will describe every single variation possible in the equation and how each results in a different world of appearance. We are expanding on the more general descriptions of class struggle painted by the equation for the rate of exploitation \((s/v)\) in Volume 1. Now we see a more graded, varied world of outcomes as we begin to examine the new dimension of capitalist competition which we are slowly adding to our map of capitalist social relations.
Though much of Part 1 is quite tedious in its example after example of different variations in the equation for the rate of profit, one of the things I do admire about it is that it is a great example of how misinformed those critics of Marx are who label him a determinist. From a superficial glance at the equation for surplus value we would assume that Marx assumed a world of constantly polarizing class struggle, of constant immiseration of the working class at the expense of the capitalist class. And indeed, this is the basic theoretical crux of the theory of exploitation. To the extent that capital reigns supreme, unrestricted, unchallenged, it will extract as much value from the working class as possible. But some see in this some sort of weather forecast, some sort of absolute prediction that is not borne out by the current plurality of working class experiences. But here in Part 1 of Volume 3 we get a long description of the plurality of forms of appearance that capital may take just by adding another variable to the equation, constant capital. Marx is saying that capital has certain essential characteristics, characteristics rooted in the antagonism of the wage relation, but he isn’t saying that there is only one possible world of appearance that this relation may take. He’s just pointing to the essential, abstract relations inherent in all of these possible world’s of appearance.

The formula for exploitation, also called the rate of surplus value, $s/v$, tells us that the capitalist gets something for nothing, that surplus value costs the capitalist nothing at all. This is essential to the basic contours of Marx’s argument. He assumes equal and fair exchange. He assumes a world of free and equal exchange in which nobody is ripped off and nobody charges monopoly prices. That is, he assumes the existence of bourgeois equality, market equality. The only way capital can exist in the context of bourgeois equality is for there to be a commodity which produces more value than it costs. An equality in exchange can only create profit through an inequality in production. While buyers and sellers are free and independent in the market, the social relation of capital is an unequal one which allows domination in production. This is the basic social relation capitalism.

But as capitalists employ their monopoly on means of production they employ the products of past labor as well as present labor into production. Constant capital enters their calculations. The equation for the rate of profit, $s/(v+c)$ describes the relation of past labor to present labor, of capital to labor, and of cost-price to profit. This is why Marx says, on page 43, that the rate of profit must be deduced from the rate of exploitation and not vice versa. The social relation of dead to living labor, of total capital to profit, etc, can’t be understood without the prior relation of capital and labor.

But then he goes further and says that “it was the rate of profit that was the historical point of departure.” (p 43) I’m not sure how to read this. There is much debate about whether we should interpret Marx’s model of simple reproduction as an historical phenomenon or a theoretical level of abstraction. Many accuse Engels of imposing the historical interpretation on Marx’s writing. Some even challenge the whole idea of simple production (See Chris Arthur’s piece: http://marxmyths.org/chris-
It is true that Marx’s comments on the historical nature of simple commodity production seem scattered and unformed, at least in the 3 volumes of Capital. There are also some important questions to raise about the historical argument: How does primitive exchange become regular enough for the law of value to really operate without the power of capital to break down these barriers to exchange? If primitive exchange contains unequal profit rates based on varying organic compositions (something we talk about in future chapters) why do people invest in high composition industries in the first place? Here are some of the thinkers on either side of this debate: Engels, Ernest Mandel (see intro to Vol. 1), and Rudolf Hilferding (Reply to Bohm-Bawerk) all argued for some historical interpretation. I.I. Rubin (Essays on Marx’s Theory of Value) and David Harvey (Limits to Capital) are the two that I have read who criticize this interpretation. I would be curious to hear other folks’ take on this and other suggested readings.

On with the chapter…

S/V tells us about the basic relations of the production of surplus value. It is assumed that once a surplus is produced that it is realized. But we know that the market contains all sorts of pitfalls and challenges to the actual realization of the value created in production. In this chapter Marx begins to outline some of the basic ways in which “production and circulation intertwine and intermingle”. “Capital passes through the circuit of its metamorphoses. Finally stepping beyond its inner organic life, so to say, it enters into relationships with outer life, into relations in which it is not capital and labor which confront one another, but capital and capital in one case, and individuals, again simply as buyers and sellers, in the other.” As our model of the labor-capital relation is expanded by adding competition between capitals we get a more fleshed-out picture of what capitalism actually looks like.

One of the most important things we notice when examining the process of circulation of surplus value is that circulation time can effect that rate of profit. If a capitalist can turnover a given amount of capital twice as fast as another he can make twice as much profit in the same amount of time. This gives the appearance that turnover time is as important as labor-time in creating value.

The process of production constantly intermingles with the circulation process. One stage morphs into the next in a continual cycle which makes it difficult to single out just one leg of the circuit as responsible for the production of value. Equally distorting is the idea that increasing the rate of exploitation by paying workers less is similar to cutting cost-price by buying cheaper constant capital. Capitalists treat both variable and constant capital as input costs to be slashed.

Marx says this all is a further development of the inversion of subject and object which happens in capitalist production. In the factory the subjective, creative forces of labor appear as the productive forces of capital alone. On the other hand the past-labor
embodied in the forces of production become the subjective power of the capitalist. These “inverted conceptions” create a “transposed consciousness” (p.45), a fetishism which attributes the social power of labor to machines and capitalists while treating the living laborer as an objective commodity.

But this is an illusion. In reality there is no inner relation between the amount of constant capital used in production and the amount of surplus value created. Now, of course there is a technical relation at play. For a given amount of workers to perform a given amount of work a certain amount of constant capital will be needed. But this amount of constant capital has no relation to the amount of surplus created. The amount of constant capital varies with the specific technical requirements of a different production processes but has no bearing on the amount of surplus created. Even within the same production process the value of the constant capital employed can change without effecting the surplus value. So Marx tells us there is no inner relation between c and s. This also means that there is no inner relation between k (cost price, or c+v) and s.

Surplus value can only be created by exploiting wage laborers. But this doesn’t mean that in the course of realizing profits in exchange this surplus can’t be redistributed between capitalists. Though the rate of profit is just another measure of the rate of exploitation, though both are just a measure of the amount of surplus value extracted from workers, the rate of profit appears as merely an excess of selling price over cost-price. It remains a mystery where the profit came from. Did it come directly from the exploitation of workers or did it come from exchange? As we will discover later in our exploration of average profits, though surplus value is created in production it is redistributed among capitalists in exchange. Though profit can only come from exploiting labor the equation for the rate of profit shows us that profit occurs as equal returns on total capital. The only differentiation within the total capital that the capitalist is aware of is the difference between fixed and circulating capital, neither of which create surplus value from Marx’s perspective.

Marx concludes the chapter by evoking Hegel: “If, as Hegel would put it, the surplus therefore re-reflects itself in itself out of the rate of profit, or put differently, the surplus is more closely characterized by the rate of profit, it appears as a surplus produced by capital above its own value….” Surplus appears as an inner relation of capital to itself and not as a social relation between capitalists and workers. And of course, appearances always have a ring of truth when we are dealing with the fetishism of commodities. The body of the laborer is incorporated into the circuit of capital. As we breathe life into the machine we gives up our own life, becoming appendages to the machine, our alienated products becoming the active agents of our domination.

Profit is the form of appearance taken by surplus value. Surplus value immediately reveals a social relation to us. Profit doesn’t. Profit obscures surplus value, and appears as a relation of capital to itself. Marx warns that the further we explore this world of
appearance the more surplus value will seem divorced from profit. In Part 2 of the book we will see how, in the case of average profit, this causes prices to diverge from values.

Chapter 3 The Relation of the Rate of Profit to the Rate of Surplus Value

This is not the most thrilling of chapters. There are more exciting ones to come. Bear with Marx. It’ll be worth it.

Before we can examine the formation of a general rate of profit and the way this causes prices to diverge from values we have more examining to do of this equation for the rate of profit: \( s/(v+c) \).

In order to do this we must make some simplifying assumptions. We assume that profit is not divided up into interest, rent, taxes, etc. This will be the subject of Part 4, 5 and 6. We also assume that there is not an average rate of profit. This will be the subject of part two. Marx is always making such simplifying assumptions. It is crucial to understand that he does so not to avoid analyzing exceptions to the law of value, but to make sure that each social relation is introduced into the equation in the right order. An element introduced into the picture too early could keep us from understanding the real nature of these social relations. We could end up with a fetishistic understanding of things. To take a popular example of such a mistake we might look at popular Austrian/conspiracy attacks on the Federal Reserve. They argue that value can be created by banks merely through debt and that this represents some sort of coercive distortion of the market. But such an analysis introduces the division of surplus value among different portions of the capitalist class before it examines the creation of surplus value in the first place. Of course banks are part of the capitalist class. Of course they extort surplus value by loaning capital. But these loans only create represent once they are repaid with actual value- value created by real people working as wage-laborers.

But back to chapter 3...

Much of chapters 3 through 6 is equations and mathematical examples. The reading is probably made more difficult from the fact that Marx continually introduces new mathematical examples rather than just varying the same one. He also seems determined to make every observation possible about the rate of profit, no matter how mundane. Let’s see if we can discern the reasons behind his tedious methods…

Marx designates the total capital with a capital C. Don’t confuse this with the lower case c used for constant capital. So instead of writing the equation for the rate of profit as \( s/(v+c) \) we could just write \( s/C \), since \( C=v+c \). Marx uses \( p' \) to designate the rate of profit. He abbreviates the rate of surplus value \( (s/v) \) with \( s' \).

(In my Moscow edition there are some mistakes in this chapter that make the math more confusing. For instance, on the first page of the chapter it should read \( s=s'v \) not \( s=sv \).)
Later on in the first sub-heading it should read “s’ constant v/C variable” and not “c’ constant, v/C variable. I confirmed this by checking the version on marxists.org.)

After a series of fancy equations Marx concludes that the rate of profit is always less than the rate of surplus value because v is always less than C (except in the rare case of an firm where v=C, that is there is no expenditure on constant capital.)

Marx then lists 6 factors that can influence the rate of profit. These are 1. the value of money, 2. turnover time, 3. productivity of labor, 4. length of the working day, 5. intensity of labor, and 6. wages. For different reasons Marx will exclude these factors from the present analysis. Let us briefly review why.

1. The value of money only changes the quantitative expression of the rate of profit, not the actual amount of labor time appropriated by the capitalist. True, rapid changes in the value of money can impact long term investments in capital. But this requires an analysis of inflation and the monetary system and this is not the correct place in the argument to introduce these factors.

2. Turnover time will be discussed in chapter 4.

3. Changes in the productivity of labor are discussed extensively in Book 1. These only effect the rate of profit when an individual capitalist is producing above or below average productivity. This relative surplus value is temporary and thus not important to the present discussion, though of immense importance to us at other times in the argument.

4, 5, and 6. Length of working day, intensity of labor and wages are all discussed extensively in Book 1. But Marx reviews their effect on the profit rate here for us anyway. Obviously, any increase in wages decreases the profit rate while an increase in the working day or the intensity of labor increases the profit rate. Marx gives us a couple short mathematical examples of this. Any change in the rate of surplus value implies some change in wages, intensity of labor or length of working day. The proportion between the money spent on wages (v) and the total amount of labor actually performed (v+s) is what is unique about variable capital. Constant capital does not have this property. The total value of constant capital is passed onto the product. It doesn’t matter whether this constant capital represents 100 tons of bricks or 200 yards of cloth. The specific use-value of constant capital is immaterial to the formation of value. But it is very important to know how much use-value a certain some of variable capital yields. If a capitalist can get more labor out of their variable capital for the same amount of money then their profit rate goes up.

Now begins “fun-time with the equation for the rate of profit” where Marx exhausts all possible variations in the equation \( p=s'(v/C) \). (I’m actually quite rusty at my algebra, so if anyone can write in and help me understand how Marx gets from \( p'=s/(v+c) \) to \( p=s'(v/C) \) that would be of great help. For readers who are equally as rusty as I am at
algebra, you can get all the same results using the original equation for the rate of profit 
\( p = \frac{s}{v+c} \).

Section 1: \( s' \) constant; \( v/C \) varying

We start by holding the rate of profit constant while varying \( v/C \). After some slightly numbing equations Marx concludes that since the rate of surplus value is held constant, changes in the rate of profit will come from the variation of \( v \) relative to the total capital, which is basically just a restatement of the equation. Marx then spends about a page apologizing for not being able to use simpler mathematical examples.

**Case 1:** \( s' \) and \( C \) constant, \( v \) variable

Since \( C \) stands for \( c+v \) the only way to increase \( v \) without changing \( C \) is to decrease \( c \) at the same rate at which we increase \( v \). Let’s say I own a factory and I have the same amount of money to start the year off with as I did last year. But now they have these new machines that need less workers. So I spend more on machines and less on workers. My total expenditure (my cost price, \( c+v, C \)) stays the same but the proportion has changed. Now normally, in reality, I don’t have the exact same amount of money to invest in each production period. But holding this factor constant allows us to see more clearly the relation between \( v \) and the rate of profit.

Similarly, if we are holding \( s' \) (which, remember stands for \( s/v \)) constant this means that any change in \( v \) must involve a simultaneous change in \( s \) for the proportion to remain constant. So if \( s \) was 5 and \( v \) was 5 we would have \( 5/5 \), or a 100% rate of exploitation. If \( v \) changes to 6, \( s \) must also change to 6 for there to remain a 100% rate of profit. Again, in real life there is rarely such a one-to-one change in both factors at once. But holding this ratio constant allows us to, again see what is unique about changes in \( v \).

With these two constraints in place, a fixed rate of surplus value (\( s/v \)) and a fixed cost-price (\( c+v \)), then any change in \( v \) will have a corresponding change in the rate of profit. If the money laid out in wages go up then profit goes up, even though the rate of surplus value stays the same. If variable capital goes down then the rate of profit goes down. In these cases, an increase in \( v \) means an increase in the magnitude of surplus without a change in the rate of surplus value. Because \( c \) is shrinking with the increase in \( v \), surplus goes up relative to cost. Of course, in real life an increase or decrease in \( v \) usually means changes in \( s \) and \( v \). But we are holding these ratios constant now to make the point that more money spent on workers means more value created.

A change in \( v \) doesn’t just mean a change in wages. It could also be a result of a change in the intensity of labor or the length of the working day. If wages stay the same then an increase in \( v \) means an increase in the amount of laborers. Since we are holding \( C \) constant this means a decrease in the amount of constant capital. This seems counter to our understanding of the natural tendency of capitalism. We know that it is in the capitalist’s interest to decrease their reliance on wage labor by replacing them with machines, not the other way around. Capitalism tends toward an increase in the
productivity of labor, not a decrease. But Marx reminds us that just such an inversion of the typical case can occur in agriculture and extractive industries like mining. When the land yields less and less product up, capital requires more and more workers to get the same output. This is a case of declining productivity of land. In our near future, as resources like oil become scarcer, or environmental degradation has an effect on agricultural productivity, we may see more such cases! But in such cases we usually have an increase in constant capital as well: more and more money poured into new technologies. So this case of rising v and decreasing c really is only found in comparisons between profit rates in different regions rather than changes in one industry over time. For instance, we might notice that rice production in rural China is more labor intensive and less capital intensive than in other parts of China where more productive technologies have replaced workers with modern machinery.

In the case of a rise in v due to an increase in wages, this would require an increase in the working day in order for s to remain the same. This certainly seems like a likely case. If the cost of living is going up and dragging wages up with it then capitalists will try to prolong the work day in order to compensate for this increased expenditure. On the other hand, rises in wages can also come about because of a strong union movement. In this case it is much harder to increase the length of the working day. Instead, increasing the productivity of labor is the best option- but this involves a change in c/v, which leads us to our next point.

If v falls then the rate of profit falls (again, given constant s’ and constant C). Let’s first see what happens if the decrease in v comes from a decrease in workers employed. For C to remain constant this decrease in workers requires an increase in constant capital. This is a case of rising labor productivity, usually a result of machines displacing workers. But this rising productivity means a falling rate of profit. This case forms the cornerstone of Marx’s explanation for why capitalist economies go into crisis. He will expand more upon this idea in the 3rd part of the book: The Law of the Tendency of the Rate of Profit to Fall.

If the fall in v is due to a fall in wages, and not a decrease in workers, then we would also need to shrink the length of the working day in order to hold s’ constant. As Marx says, this case is highly unlikely. A capitalist would be mad to not jump at the chance to increase surplus value when wages fall.

**case 2: s’ constant, v variable, C changes through the variation of v.**

Here we set constant capital (little c) constant so that when we vary v then C must change also. (Because C=c+v any, if c is constant, a change in v changes C. In case 1, remember C was held constant which required a inverse change in c every time we changed v.) This means that we are examining changes in the famous “organic composition of capital”, the ratio of c to v (c/v). It will be Marx’s contention that a rise in the organic composition means a falling rate of profit. Much of the criticism of this
theory relies on arguments that either there isn’t a tendency toward a rise in organic composition or arguments that a rise in organic composition does not lead to a fall in profits. The former objection lies within the bounds of Marx’s value theory, arguing that the cheapening of the means of production can stabilize profit rates. The latter objection, which goes by the name of the Okishio Theorum, is an assault upon the basic idea of Marx’s value theory, that only human labor can create value in a commodity economy. Okishio holds that an increase in physical productivity always means more value. Okishio’s “Theorum” has been roundly criticized by the Temporal Single System Interpretation of the LTV. But all this should wait for the part of the book on The Tendency Toward a Falling Rate of Profit”.

But I am getting ahead of myself again. Here in case 2 Marx points out that in modern industry the organic composition of capital is rather high already (high ratio machines to workers). This means that changes in v are rather small and don’t have a drastic effect on the profit rate. Perhaps this could be taken as a reason for a rising organic composition of capital. With the relatively small variability of v capitalists are forced to increase c in order to try to raise the productivity of labor.

In the example Marx gives a decrease in the productivity of labor causes a rise in profit. An increase in productivity causes a fall in profits. Timpani rattle. Spooky, orchestral strings tremolo on diminished chords.

case 3: s’ and v constant, c and therefore C variable

Here the capitalist increases or decreases expenditures on machines or raw materials while holding the rate of exploitation and variable capital constant. Thus the organic composition rises and falls freely. Immediately we see that the rate of profit is inversely proportional to the organic composition of capital. The more the organic composition rises, the more the profit falls.

This rise in c could come about through an increase in the actual number of machines or amount of raw material or through an increase in their price in the market. Rising c means a rising productivity of labor- that more stuff is being produced from the same amount of labor. But this “more stuff” doesn’t have more value. It does have higher cost. Thus profits fall.

4. s’ constant, v, c, and C all variable

Now Marx gets really wild and lets two variables vary. From this we learn that: a. The rate of profit falls is c increases faster than v. b. If they change in the same direction at the same rate the rate of profit stays the same. c. The rate of profit rises if v rises faster than c.

None of this adds anything new to the analysis. We have learned all this from the earlier examples where one factor at a time was varied.
Along all of this analysis we have come upon limits where we can’t vary v/c any more without also varying s’. In examining the falling wage, for instance, we said that it is highly unlikely that this will happen without a corresponding increase in surplus value. Thus the next step is to examine changes in the rate of surplus value.

Section 2: s’ variable

This section opens with some equations that don’t particularly stir any great passions in me.

case 1: s’ variable, v/C constant

Obviously, in such a case rises in the rate of exploitation lead to a rise in the profit rate and vice versa. Since we are holding v/C constant a change in v must have a corresponding change in c in order for the ratio to remain the same.

Marx takes a quick jab at Ricardo who only presents one factor for the variation in profit: changes in wages. It is a brief jab, and not knowing the wider context of the issue I’m not sure if I’m missing anything about Ricardo’s ideas. Marx argues that a change in v can also be the result of changes in the length of the working day or of the intensity of labor. All three factors have the same effect on the rate of profit.

case 2: s’ and v variable, C constant.

There are three possibilities here:

a. v and s’ vary in opposite directions by the same amount. This means that a decrease in wages means more surplus.
b. v and s’ vary in opposite directions but by different amounts. In this case the more rapidly changing variable is the determining element.
c. v and s’ vary in the same direction. In this case the two variables intensify each other. If v and s are shrinking profit falls. If they both rise profit rises.

case 3: s’, v and C variable

There is nothing new about this case that is not covered earlier. (Whew!)

Marx then makes some summary remarks about changes in the rate of surplus value:

1. If v/C is constant then the rate of profit changes in proportion to the rate of surplus value.
2. If v/C changes in the same direction and proportion as s’ then the rate or profit changes faster than the rate of exploitation.
3. If v/C changes inversely to s’ but at a slower rate p’ rises or falls at a slower rate.
4. If v/C changes at a faster rate than s’ then p’ rises while s’ falls, and inversely. This is crucial. It shows that the increase in organic composition can over-rule the increase in the rate of exploitation if it moves faster. A faster increase in the rate of exploitation could offset a falling rate of profit. So for us to establish that the Falling Rate of Profit is
inevitable we not only have to show that the organic composition tends to rise, but that this rise outpaces any rise in the rate of exploitation. 5. p’ stays the same if an increase in v/C is proportionally offset by an increase in s’.

When the rate of profit in two different countries are compared it is usually differing rates of surplus value that determine the different profit rate.

From these five cases we notice that a falling or rising rate of profit can result from all sorts of different rates of surplus value. The direct link between surplus value and profit is severed. Thus, we can’t immediately see surplus value in the rate of profit. A firm could have a low rate of profit and a very high rate of surplus value. A firm could have a high rate of profit and a low rate of surplus value.

All in all the rate of profit depends on two factors: the rate of surplus value (s/v) and the value-composition (or organic composition) of capital (c/v). If the rate of surplus value rises, profit rises. If the organic composition rises then profit falls.

Chapter 4 - The Effect of Turnover on the Rate of Profit

This chapter is written entirely by Engels. According to Engels all Marx had completed for this chapter was the title.

Turnover time does not effect any of the basic observations about the rate of profit which we have already made. But it does alter the speed at which profits are made, thus effecting the rate of profit. While this may not be the most exciting chapter ever written there are some important concepts here. Most importantly, the faster the turnover time the higher the rate of profit. This means that capital has a marked tendency to decrease the turnover time both in production and circulation. David Harvey even develops a concept of “socially necessary turnover time” which is created by this competition to accelerate the speed of turnover. When people talk about the telescoping nature of our modern experience of time we must look to this socially necessary turnover time as the most important force in this drive to make all things instantaneous. Capital seeks to make production faster through better technologies, more efficient labor processes, different organizations of production (just-in-time production, small-batch production, etc.). It also seeks to make circulation faster through better transport, faster communication networks, and credit.

Engels starts by reminding us of the discussion on turnover time in Volume 2 of Kapital. There is always a portion of capital which is not fully used up in production. This could be all sorts of things: money capital, machines, factories, partially finished commodities, finished but unsold commodities, etc. The faster capital can turnover this portion, the more efficiently it produces surplus value.
The chief means of reducing production time is to increase labor productivity. If this doesn’t require a massive investment in new fixed capital then the profit rate will rise. The chief means of reducing circulation time are improved communications. Engels discusses the improvements in his time (steam boats, railroads and canals) and says these have doubled or trebled the global turnover time. Even more interesting is his passing comment about the economic crises of 1825-57 in American and India being softened by their growing integration with the European continent through these improved communication networks. Engels is hinting here at the way both temporal and spacial strategies are used to displace economic crisis. This is the big innovation of David Harvey’s geographical work on crisis theory.

Engels provides a short example of how an increase in turnover time increases the profit rate. If I start out advancing $100 in capital which yields $20 profit I have a 20% rate of profit. But if I turnover that capital twice in the same period I will have $40 in profit, all still from the original $100 capital advance. Therefore, all other factors remaining constant, an increase in turnover time increases the profit rate. This effect is due to an increased efficiency on the part of variable capital which has turned over more product in the same amount of time.

Engels’s next point is that the capitalist actually lumps payment for wages along with all other circulating costs, like the cost for raw materials for that week’s workers to use. Circulating costs come from the cash box and the capitalist, says Engels, doesn’t make much of distinction in his record books between how much of this circulating capital goes to wages and how much to constant capital. Thus the grouping of variable capital with the category of circulating capital masks the value-creating power of variable capital in much the same way that cost-price does. Engels ends by saying that in the United States of America business accounting practices do a better job of differentiating between wages and other expenses in their records of the circulating capital. I don’t know but I would expect that nowadays it is easy to see records of the amount of wages paid relative to other parts of the circulating capital. Still it probably is true that to the capitalist the important distinction is not between constant and variable capital but between fixed and circulating capital. The faster capital turns over the higher the profit rate. Thus fixed and circulating capital have an immediate and visible effect on profit rates. Though variable capital is the source of profits, we experience this value-creating power as a result of other forces like circulating capital or even exchange itself. Thus the social productive relations of capital are expressed in a material form which disguises their social nature. Is this not the basic thesis of Kapital?

This last point of Engels’s also points to another problem: the challenge to provide empirical evidence of the labor theory of value. If value is really congealed labor time we should be able to show a statistical correlation of price and hours worked, right? There are many obstacles to carrying out such a project successfully. For one, as Engels points out here, capitalist bookkeeping uses different categories than Marxist economics. The difference between the wages a worker is paid and the amount of value
they create is not directly evidenced by a look at the books. Capitalists often have very
different classification of expenditures.

Though this is the only obstacle to empirical confirmation I might list others here. For
one, much of Vol. 3 is devoted to an explanation of the way capitalists in competition
change the market price of commodities away from their Socially Necessary Labor
Time. The formation of average profits, credit and rent change prices. Thus the
correlation of value and price can only be statistically correlated in the aggregate, as
total price of all commodities on the market and total number of hours worked to make
these. But, of course, holding these two aggregates next to each other doesn’t prove any
causal correspondence. The proof of the labor theory of value can’t be found here, but
in its descriptive power and its logical structure. There have been some efforts to
provide empirical data on prices and value. I’m suspicious of these attempts but would
be curious if others have more information about any of these. In his book “Reclaiming
Marx’s Capital” Andrew Kliman briefly criticizes the attempt by Anwar Sheik to do an
empirical study (see his “Empirical Strength of the Labor Theory of Value” here,) but
this is because Kliman disputes Sheik’s understanding of the transformation problem.

To end with another aside, I am struck by the contrast between this observation that an
increase in turnover time increases profits and the theory of round-aboutness espoused
by Bohm-Bawerk. Bohm-Bawerk’s criticism of Marx’s theory of exploitation led him
to seek other explanations of profit. Leaning on the work of J.B. Say he postulated that
profit was a result of different time-preferences: We value present goods more than
future goods. Those able to postpone immediate consumption and invest in production
for the future will reap a reward called profit. This all assumes, of course, that value is
completely subjective- a problematic proposition for sure. But if Bohm-Bawerk’s theory
were true wouldn’t we expect the greater profit to come from longer turnover times
rather than shorter ones? I am not an expert at all in Bohm-Bawerk and I suspect I may
be missing pieces of his argument here. If any readers can explain how Bohm-Bawerk
would explain the rise in profits with decreased turnover time please write in and
explain.

Chapter 5 - Economy in Employment of Constant Capital

There are no dizzying equations in this chapter. There are some important points that
will be of use in our future investigation of the Falling Rate of Profit. The FRP
argument will claim that profits fall because the total investment in constant capital rises
relative to the variable capital in the aggregate in the long run. Once most of the world’s
population has been incorporated into the workforce capitalists cannot increase surplus
value by hiring more workers. That surplus must be reinvested in generating relative
surplus value instead- that is, invested in machinery which raises the social productivity
of labor. But this means a rising concentration of fixed capital and a relatively stable
variable capital, which means a falling rate of profit. Of course rising productivity also means that constant capital is made more cheaply. Can this stem the FRP? Many critics of the FRP say so. Let’s see exactly Marx is trying to say about the effects of the social productivity of labor on constant capital costs and the profit rate.

Marx begins by explaining that a rise in absolute surplus value will always raise the rate or profit. Remember that a change in absolute surplus value means a rise or fall in the total amount of surplus value, not a change in the rate of surplus value. A capitalist increases absolute surplus value by lengthening the working day or hiring more workers. This increases both v and s in the same proportion. When more work is being done more raw materials must be used up so the cost of circulating constant capital goes up. But because much of the capital invested in production is fixed capital, things like buildings and machines that wear out over the course of several years, the cost of c does not rise as fast as v and s. Therefore a rise in absolute surplus value means a rise in profits. A prolongation of the working day increases profits, even if overtime pay is paid! In addition, the turnover time of the fixed capital decreases as it is used up faster, thus boosting profit rates (see previous chapter.) Of course if the capitalist is hiring more workers instead of lengthening the work day this may eventually call for the purchase of more fixed capital which could effect the profit rate more dramatically.

Things are otherwise with relative surplus value. Relative surplus value comes from either reducing wages or increasing the productivity of labor. If the productivity is what is raising the surplus value then this means increased expenditures on machinery and raw material, which means a rise in c. Thus an increase in the productivity of labor exerts pressures to both raise and lower the profit rate. Which direction the influence goes depends on the degree of relative surplus value and the expense of the additional constant capital. It is the contention of the falling rate of profit that in the long run capitalists are forced by competition to invest more in constant capital then is actually gained, in aggregate, from relative surplus value. The thing about relative surplus value is that it is relative. The total amount of value being created stays the same. Meanwhile, year by year the mass of surplus value looking to be reinvested grows. More and more is plowed into fixed capital meant to increase relative surplus value. But this growing imbalance between C and s means that profit rates fall over time. But that argument comes later.

The first and foremost way in which capitalists economize on the use of constant capital is through the centralization of production. When machinery is concentrated in one place, on one shop floor, rather than spread out in small machines over many small producers, there is a more efficient use of constant capital. Such concentration of capital also increase the social cooperation of labor. Marx argues early on in Kapital Vol. 1 that cooperation between laborers increases the productivity of labor. By concentrating production in one place, sharing the same large machinery among a mass of workers, the cooperative powers of labor are harnessed and multiplied.
Marx is always making the point that what appears to be the production of value from machinery is actually the production of value by social labor. This is true to his method which asks how social production is coordinated via the exchange of material commodities—commodities that become bearers of value. Machines are commodities that bear value, they pass this value onto the product and they increase the social productivity of labor which increases relative surplus value. In the example here, when concentrated in one place they increase the social cooperation of labor which increases productivity and thus relative surplus value. But they don’t create value. This concentration of production takes the form of large investments in fixed capital: factories with huge machines, transport systems, etc. But this is also a radical economizing on constant capital compared to earlier periods of capitalism where production was dispersed between many independent, smaller factories, or even sub-contractors working from their houses.

[Perhaps reviewing some points about relative surplus value here would be useful. Relative surplus value means, among other things, that more value is not necessarily being produced, just more value relative to other costs or to other capitalists. If the productivity of labor increases in the food industry this means that the cost of subsistence of the working class goes down which causes wages to shrink which raises surplus value. In this example we see how the productivity of labor is truly a social phenomena, with one capitalist’s innovations aiding the entire class. But why would a capitalist engage in such an indirect means of increasing surplus value? There is another type of relative surplus value that motivates the capitalist directly. When a capitalist lowers their production cost per commodity below the socially necessary labor time for that commodity they reap relative surplus value. The actual value produced by that capitalist is lower than the socially necessary labor time (SNLT), yet the rest of the industry still prices their commodities at the SNLT. Profit is realized. Of course this encourages competition, imitation of this more efficient production method by competitors and eventually the SNLT lowers itself down to this new level. This type of relative surplus value is fleeting and pulls the capitalist class into a never-ending competition to increase productivity through technological innovation. Relative surplus value that comes from technological innovation makes it appear that machines themselves are creating value. But actually the opposite is happening. Machines are causing less value to go into each product. Meanwhile the cost of the new machinery may cause cost-price to rise. This will all be useful to us in discussing the falling rate of profit.]

Another way of economizing on constant capital is to recycle waste from production. This waste is also a result of the social productivity of labor. Marx doesn’t expand on this point much but we can see that today there are whole industries devoted to recycling productive and consumer waste in an attempt to decrease constant capital costs.
If for any reason surplus value becomes fixed then capitalists much seek to raise profits by decreasing constant capital costs. I can’t think of any real-life examples where surplus value is fixed so I assume that this is more of a theoretical abstraction in order to look at the way savings in constant capital increase the profit rate.

The amount of constant capital used in production is not a function of its exchange value, but of its use-value. To set a given number of workers in motion a certain amount of machines and raw materials are necessary. This number is given by the material-technical aspects of production and is not effected by the price of raw materials and machines. Surely, a capitalist must take their prices into account when deciding how much to invest, but it is the material use-value which determines the proportion of raw materials, machines and people needed in production. If these material-technical proportions change this is a result of the changing productivity of social labor. The prices of raw materials and machines also may change. These changes are the result of changes in the productivity of labor elsewhere in the economy. If the price of flax falls its because flax production has become more efficient. If the price of office computers fall its because computer production has become more efficient.

Reductions in the wear of machinery decrease constant capital costs. If we factor in regular repair costs to our constant capital calculations then reductions in the wear of machinery mean less repair costs.

The increased productivity of labor in one industry, and subsequent falling of commodity prices, causes a saving in constant capital for other industries that rely on that commodity for production. If the cost of coal goes down, factories that rely on coal experience a fall in constant capital costs. This is a great example of how social production really is in a capitalist society. Changes in productivity in one sphere have rippling effects everywhere. Marx makes a brief aside here to say that changes in productivity come not just from the laborers directly engaged in production but also from the division of labor and from intellectual labor (scientific progress.) The capitalist takes advantage of this entire ensemble of social productivity, not just the productivity of his own workers. His comments about intellectual labor in Vol. 1 are useful on this point. Once an intellectual idea becomes widespread it offers up its value like a force of nature (like a windmill uses the power of wind). It becomes a free social good. I think these points are quite important in our current economic climate where the value of many industries rely so heavily on intellectual property and the legal copyrights that protect them.

On page 82 Marx returns again to point out that efficiency in the use of means of production by concentrating them in one place make possible the large scale use cooperation of labor and thus saves on constant capital. I’m not sure why he repeats the point again here.
If there were no constant capital costs then the rate of surplus value would equal the rate of profit. Adding constant capital costs into the equation only lowers the rate of profit. But we know that the material-technical process of production requires various proportions of constant capital. Therefore the capitalist seeks to get the best machines and raw materials for her money and to use these as efficiently as possible. No waste! Of course there is also the practice of cheating in exchange—of selling adulterated or cheapened products, but this issue involves the process of exchange and so we leave it alone here.

The paragraph on page 84 is doubly important. It begins by reminding us that just because increased productivity may cause the price of constant capital to fall this doesn’t meant that the total, aggregate price of constant capital falls. The interaction effects of this rising productivity are complex but we do know that the total mass of constant capital tends to rise relative to workers. One of the big debates among proponents and opponents of the falling rate of profit thesis is whether or not the cost of aggregate constant capital rises or falls over time. It’s clear that the mass does, but does the value of this mass rise as well or is it offset by the falling cost of constant capital? Marx says “A relative cheapening of the means of production does not, of course, exclude the possible increase of their absolute aggregate value, for the absolute volume in which they are employed grows tremendously with the development of the productive power of labour and the attendant growth of the level of production.” I read this as saying that it is possible for the value of aggregate constant capital to rise even though the per unit values of constant capital may be falling. But in this paragraph Marx does not seem to go further than to say that it is a possibility.

Instead of pursuing the point further Marx moves onto a discussion of the difference between the actual cause of the fall in constant capital cost (the productivity of labor) and the way this productivity appears to the capitalist and worker. When a capitalist buys cheaper constant capital this is a result of an increase in productivity somewhere else in the economy. This is one of the things that links the productivity of all labor together. But to the individual capitalist this decreased cost of raw materials, or more efficient machinery appears as the product of capital itself. Capital appears to create profit all by itself without the worker. But for Marx capital is a self-expanding circuit between money and commodities—a circuit whose powers of self-expansion come from the fact that the body of the worker is incorporated into the circuit.

The worker doesn’t care what the price of the means of production are. The worker only encounters the means of production as use-values. This interconnection of the social productivity of all labors which we observe in the changing value of constant capital—this harnessing of the collective productivity of the working class—appears as an alien force to the worker, a force that dominates him/her in production. But if workers owned the factories themselves, Marx cites the cooperatives of Rochdale as an example, this would not be their experience. (If anyone can cite other mentions of Rochdale in Marx’s writing I would appreciate that.)
While the capitalist is interested in getting the best quality of constant capital per dollar this concern for quality does not always extend to the sphere of safety and health standards. Dangerous machinery, overcrowding of workers in production... etc.- This continual problem of unsafe working conditions is a result of the desire to reduce constant capital costs without any regard for the living part of capital that spend its life working with these means of production.

It is often argued, against the theory of the falling rate of profit, that capitalists have an equal tendency to reduce both variable and constant capital costs and that therefore the organic composition of capital does not necessarily rise. Towards the end of this section Marx seems to be saying something similar to this: “Just as capital has the tendency to reduce the direct employment of living labour to no more than the necessary labour, and always to cut down the labour required to produce a commodity by exploiting the social productiveness of labour and thus to save a maximum of directly applied living labour, so it has also the tendency to employ this labour, reduced to a minimum, under the most economical conditions, i.e., to reduce to its minimum the value of the employed constant capital.” But this tendency to seek reduced costs in both variable and constant capital doesn’t mean that there is no absolute objective tendency in the composition of capital. A decrease in per unit constant capital cost can only be the result of increased social productivity which necessarily means less and less labor is incorporated into each product. Meanwhile the mass of surplus value is growing, albeit at a decreasing rate, and it has no choice but to invest in more constant capital, thus raising the organic composition.

He then makes the following statement:

“We must make a distinction in economy as regards use of constant capital. If the quantity, and consequently the sum of the value of employed capital, increases, this is primarily only a concentration of more capital in a single hand. Yet it is precisely this greater quantity applied by a single source — attended, as a rule, by an absolutely greater but relatively smaller amount of employed labour — which permits economy of constant capital. To take an individual capitalist, the volume of the necessary investment of capital, especially of its fixed portion, increases. But its value decreases relative to the mass of worked-up materials and exploited labour.”

I believe Marx is saying that even though constant capital costs may rise in a firm this increased concentration of fixed capital can be seen as increased efficiency in the use of means of production. By concentrating capital in one place it permits more efficient use of these means of production even though it costs more to bring all of these means of production into one place.

The rest of the chapter is devoted to examples of these forces. Perhaps these will shed some light.
II. SAVINGS IN LABOUR CONDITIONS AT THE EXPENSE OF THE LABOURERS

Beginning with some dark reports of deadly labor conditions in the coal mines Marx points out that the attempt to save on constant capital outlays can mean a cruel squandering of human life. But instead of just referring to these savings as “savings in constant capital” he says, “Capitalist production… is very economical with the materialised labour incorporated in commodities.” Either way- variable or constant capital- what is being economized on is human labor. (But whether this is direct human labor or embodied human labor is essential for understanding profit rates.) Marx points out the absurdity that this reckless disregard for human life is what forms the basis of the way our social relations are reproduced.

And then, so briefly you might miss it, he slips in a rather romantic description of capitalism as “the epoch of history immediately preceding the conscious reorganisation of society.” It is rare that we hear Marx speak of communism. We should savor every bit we get, no matter how vague. If anything can sum up the radical potential in the idea of communism it is this phrase “conscious reorganization of society.” Not a society indirectly organized through competing self-interest but a consciously reorganized society of direct social relations.

There is a long passage relating the history of legal efforts to improve safety standards in factories. Nothing of terribly important theoretical important here but I do like the phrase, “killing was no murder when it occurred for the sake of profit.” As the increased social productivity through centralization of production brings workers together in large workplaces the nearness of large groups of humans to each other creates health problems in itself. Poor ventilation creates a huge increase in “consumption and pulmonary disease”. Marx takes pages listing the deaths in the English agricultural districts in 1860 and 1861. As with Vol. 1, my eyes tend to glaze over when Marx veers from theory into these long historical documentations of working conditions, diseases and deaths. But then I have to remind myself that we would know very little of the horror and destruction that capital wrought upon humanity in Marx’s time if it were not for his detailed lists, reports and descriptions. These are people who would have been forgotten by history- empty husks of bodies used up, discarded and forgotten by capital. Marx is taking time out of a very dense and theoretical book to record their stories because they are important. What contemporary Marxist economists devote so much time and writing to descriptions of the atrocities of the modern labor process? The amount of time Marx took to read and copy by hand factory-inspector reports and government hearings is amazing.

III. ECONOMY IN THE GENERATION AND TRANSMISSION OF POWER, AND IN BUILDINGS
The entirety of this section quotes a letter from “the famous engineer James Nasmyth of Patricroft, the inventor of the steam-hammer,” that Marx must have copied into a notebook with the intention of using for this section. It appears to just be an illustration of previously made points about economy of constant capital through more efficient power.

IV. UTILISATION OF THE EXCRETIONS OF PRODUCTION

Excretions come from both production and consumption. Capital tends to waste a lot of this, filling up landfills and polluting the planet. But sometimes the price of raw materials causes capital to seek to reuse these excretions in production. Advances in science allow us to find new ways of using these waste products. Of course in Marx’s time we didn’t have radioactive waste, carbon pollution, or styro-foam. There seems to be a scientific limit to how much of this waste can be reused. Marx points to the irrational waste of human poop which pollutes the Thames river in London rather than being used to fertilize farm land. In a rationally planned society we could put all this waste to good use. But in a capitalist society we must wait for it to be profitable. Our current debate over carbon trading could easily fit into this chapter.

Some of this recycling results in the production of crap. Marx gives the example of “shoddy”- inferior wool garments made from discarded rags and scraps that wear out easily. The poor workers who bought this shoddy had continually buy more of it as it wore out so quickly. This, I believe, is the origin of the word “shoddy” as an adjective to describe inferior goods. It may also be one of the first examples of planned obsolescence.

Reduction of waste is another way of saving costs. Technology which makes more efficient use of raw materials is the means of this reduction.

V. ECONOMY THROUGH INVENTIONS

The important point here is between universal labor and cooperative labor. This is the only place where I can think of seeing “universal labor” used in this way. Often universal labor is used interchangeably with the concept of Abstract Labor but I don’t think this is the intention here. Here universal labor refers to scientific labor, the fruits of which are used over and over again by the whole planet for as long as we deem it appropriate. Today we might use the term “intellectual labor” or “information”. Cooperative labor is the labor directly engaged in production. Once performed it is done with, history.

The trailblazers in an industry invest a lot in this “universal labor”. Their competitors come along later and imitate these technological advances at less cost. Many new ideas, at first used exclusively by one capitalist, become the free property of all of humanity thus offering up their forces like a free force of nature. Secrecy, patent and copyright
can preserve the right to exclusively use a new idea and charge monopoly prices. But eventually competition will break down this barrier, liberating this idea.

In today’s economy, where the automation of production has really made intellectual labor one of the last remaining sources of value, we see this dynamic at work with a vengeance. We live in a perpetual innovation, information age where millions are spent on the race to come up with the next big new idea. But as soon as these ideas pass into the public realm we need new ideas to replace them. For more on this check out the book “Cutting Edge” edited by Jim Davis.

Chapter 6 - The Effect of Price Fluctuations

1. Fluctuations in the Price of Raw Materials, and their Direct Effects on the Rate of Profit

We begin with a repetition of the observation from the previous chapter that changes in prices of raw materials change the cost-price and therefore the rate of profit. (Marx is mostly referring to raw materials that form the circulating part of constant capital, not fixed capital, though later he can’t help but move briefly into this topic.) Higher cost-price means lower rate of profit and vice versa. Thus the cost of transport, the efficiency of world trade and the tariff system all play an important role in the way they effect raw material prices and profit rates.

Since raw materials pass directly into the product while fixed capital’s value is transferred a little at a time over the life of the fixed capital this means that price fluctuations in raw materials have more of a direct effect on prices and profit rates than fluctuations in fixed capital costs. As prices of commodities fluctuate so the demand for them fluctuates, causing expansions and contractions in the supply of the commodity on the market.

Marx, giving us a sneak preview into the soon-to-come explanation of prices-of-production, mentions here that these fluctuations of price would not be quite so extreme in a situation of average profit rates and prices of production. We are still assuming that commodities trade at their values. But if they traded at their prices of production instead, the formation of average profit rates would slightly soften this fluctuation in price caused by the fluctuation of raw material prices.

The increasing productivity of labor means that the same amount of workers produce more product per hour. This increasing productivity requires an increase in the raw materials. If workers are making twice as many shoes as before they need twice as much leather, rubber and thread. Thus the price of the commodity contains less and less labor, and less and less fixed capital value but more and more raw material value. Marx refers
to this fall in the value added, per commodity, by labor and fixed capital as a “falling
tendency” only counter-balanced by a decrease in the price of raw materials.

Marx ends this first section by noting (I think I am understanding this correctly) that
when raw material prices grow inordinately high this causes manufacturers to make
better use of waste product. We may see a similar process in our lifetime if prices in oil
continue to fluctuate in ways the disrupt production.

II. APPRECIATION, DEPRECIATION, RELEASE AND TIE-UP OF CAPITAL

Appreciation or depreciation of capital refer to changes in the value of any of the factors
of production after they have been purchased due to general changes in the economy.
For instance, after purchasing a 100 barrels of crude oil the market price of oil might go
up due to, say, a new war in the Middle East. What does this appreciation in the already
purchased raw material inputs mean for the capitalist who has already purchased this
oil? Or a capitalist may spend millions of dollars on a new, state-of-the-art, factory that
makes cars only to find out that ten years later foreign car companies have invested in
even more state-of-the-art factories at lower prices. How does this depreciation of fixed
capital effect the profit rate? Marx intends to tell us in this chapter.

He also intends to tells us about the tie-up and release of capital by which he means this:
In order for reproduction to occur a capitalist must devote a certain portion of the price
of his products to reinvesting back into constant and variable capital. If he sells a
football for $10 he can’t spend that entire $10 on booze and comic books. A certain
portion of that $10 is “tied-up” in variable and constant capital. Now, if the price the
food goes down and wages fall, or if the prices of raw materials fall this means that
some of this previously tied-up capital is “released”. The capitalist can then choose to
spend all of this released capital on loose-living and luxury goods or to reinvest in
expanding production.

At the beginning of the chapter Marx notes that a full understanding of these factors,
appreciation, depreciation, tie-up and release, really requires an analysis of the credit
system and the world market. These are topics Marx was reserving for much later in his
argument. Unfortunately he never got to them.

Now you may be thinking, “Didn’t we just spend a really long time investigating the
effects of changes in the prices of constant and variable capital on the profit rate?” Yes
we did. All of those prior investigations assumed that changes in prices happened
between production periods, as if capitalists bought inputs at the beginning of the week,
turned them into commodities which they sold at the end of the week, and then stepped
into the market on Monday to encounter a whole new set of prices. In reality, at any
given time parts of the total capital are in the market looking to buy or sell goods while
other parts are in production making goods. This is why we need to look at appreciation
and depreciation separately from our previous analysis. Remember that the law of value
is the law whereby the production is regulated indirectly through market exchange. We produce with an eye on exchange. But we don’t know the full value of our product until we realize it in exchange. While one thing is happening in the private sphere of production quite another might be happening in exchange. Values are constantly changing as changes in productivity, circulation, and politics (tarifs, wars, etc.) effect the socially necessary labor time, socially necessary turnover time, monopoly pricing, scarcity rents, etc. (When we add the credit system to the mix an entirely new aspect of price fluctuations are introduced into the picture.)

If the price of cotton goes up then the prices of commodities that contain cotton go up. If I own a t-shirt factory and have already bought a year’s worth of cotton I will actually benefit from the appreciation of my raw materials. I can sell t-shirts at the new market price caused by the increased price of cotton. Because I bought my cotton at the lower, pre-appreciation, price I can pocket the difference as profit. The appreciation of my stock of cotton actually offsets the fall in profit usually caused by a rise in constant capital values. But if all the competing t-shirt making firms have also purchased a year’s worth of cotton the existence of cheaper cotton in our stock piles will press the price of t-shirts below this new appreciated price. The opposite process takes place if cotton prices fall.

This all make for some confusing results. If my capital looses value through depreciation this can still mean that my profit rate goes up since the profit rate is the excess of surplus value above the value of total capital. If my capital gains in value my profit rate my go down for the same reasons.

A discussion of appreciation and depreciation of fixed capital can’t happen without a theory of ground rent so this will have to wait till later in the book. But Marx makes some remarks about machinery here. If the use-value of machinery is quickly going out of date, this causes machines to loose their value- to depreciate- before the labor contained in them can be fully transferred into commodity form. To take my previous example of the US auto-industry, if I build a fancy new Ford factory in 1940 in Detroit and the Japanese build a much fancier and cheaper factory 15 years later this makes my machines depreciate. I can’t sell my cars at prices that will allow me to recoup my investments in fixed capital. I have to sell at the lower market price set by the Japanese. (Or I can resort to tariffs, lay-offs, attacks on unions, “buy American” campaigns, right-wing populism, etc.) Marx calls this “moral depreciation”. This means that when new machinery comes on-line there is often an urgent need to get the most product out of them before they depreciate. In Marx’ time this meant the prolongation of the working day in order to work the machine as much as possible before it became obsolete. We see similar logic today with the use of night-shifts and overtime in factories. (Slightly related is the desperate urgency to get the most profit out of intellectual property before the monopoly rents associated with it disappear.) This all means that the newest entrants into the market are often not the ones that profit from a new technology. They often go out of business because they can’t compete with new competitors. This devalues their
fixed capital. The winners buy up this devalued capital at bargain-basement prices which allows them to have a huge profit margin.

Here, in a few paragraphs Marx lays out the part of the picture of the accumulation cycle that characterizes capitalist crisis. It is the coupling of this picture with the Falling Rate of Profit which allows us to see the way the “counter-vailing influences” against a falling profit rate play out in real time. We saw a few chapters back that the falling profit caused by an increase in organic composition can be offset by a falling price of constant capital. Here Marx shows how this works in a world in which huge amounts of investment go into fixed capital. When fixed capital prices fall we get moral depreciation which means a falling rate of profit which can only be reconciled by crisis and devaluation. This line of argument fits quite well with the description of the US economy in the last 70 years, especially the auto-industry. Marxists like Andrew Kliman, David McNally, Allen Freeman, David Harvey and others point to this moral depreciation of fixed capital as a key element in explaining the current crisis. It is this phenomena that Robert Brenner mistakes for competition in his competition-centered account of crisis in “The Economics of Global Turbulence.”

“There is still variable capital to be considered.”

Obviously- if the means of subsistence appreciate then wages must go up and surplus value falls. The opposite happens with depreciation.

If a capitalist is used to reinvesting so much a week in wages and the wage begins to fall this will then free up some of that variable capital. Some of the variable capital is “released” and become surplus value. This can be used for new golf clubs or vacations to Buenos Aires or it can be reinvested in production. This makes it possible to expand production by hiring more workers to exploit. The opposite happens with an appreciation of wages. More capital is “tied up” in variable capital which means that if production is to continue at the same scale money must be taken out of the surplus value and spent on variable capital. The rate of surplus value and rate of profit falls.

Marx makes the distinction in this section between the effects of this appreciation or depreciation on newly invested capital or previously invested capital. If depreciation effects a newly invested capital all this does is to change the rate of surplus value and profit. If it effects a previously invested capital this depreciation releases variable capital for new investments.

“The release and tie-up of variable capital, just analysed, is the result of a depreciation or appreciation of the elements of variable capital, that is, of the cost of reproducing labour-power.”
But variable capital can be released by changes in productivity as well. If productivity increases make is possible to get the same amount of commodities out of half as many laborers this means a releases of variable capital. However, as we have already seen, this most often goes along with an increased need for raw materials which means a tie-up in constant capital costs. The relative amounts of the release of variable capital and the tie-up of constant capital determine the effect on profit rates.

Usually a tie-up of more constant capital goes along with increasing productivity but it can also correspond to the opposite. In agriculture, if the fertility of land is declining, more and more constant capital will be needed to get the same amount of product from the land. Here declining productivity ties-up more constant capital.

As constant capital in the form of raw materials starts to take on more and more of the day-to-day cost of production, price changes in raw materials have more violent effects on profit rates. Fixed capital costs are long-run costs and don’t depend much on the day to day fluctuations of prices. But raw materials must constantly be replenished and thus can cause endless fluctuations.

This is especially true of raw materials whose production involves natural forces out of the control of man. Agriculture is the chief example here. A bad harvest, a blight, etc. can make agricultural prices fluctuate. The products of nature are not nearly as steady and predictable as the products of purely human labor in other spheres of production. Agricultural production also can’t immediately increase or decrease to meet fluctuations in demand. Production is planned around yearly crop cycles and can’t be adjusted until the beginning of the next planting season. This means that there can be shortages and gluts of agricultural goods.

Fixed capital tends to grow steadily- or even rapidly. This means that there is always a growing need for raw material inputs. This leads to overproduction of machinery and under-production of agricultural goods. And this means higher prices in the agricultural sphere.

In times of spikes in raw material prices capitalists often band together in associations to stimulate production of raw materials. This is one of many ways capitalists act collectively as a class when they are threatened as a class. But as soon as production returns to normal the capitalists return to open competition on the market and their ideology of “free trade”. Funny how disposable economic liberalism is when the capitalist class is threatened. Funny also how the libertarian/neo-liberal/Austrian argument is always that these trusts and other such associations are an imposition upon a rationally functioning market when it is clear from this and countless other examples that just the opposite is the case: these are attempts by the capitalist class to impose order upon an irrational market. Marx concludes this segment by saying that capitalism is totally irrational from the standpoint of agricultural production. It requires “either the hand of the small farmer living by his own labour or the control of associated
producers.” Is it no wonder that today the agricultural industry depends on massive subsidies and tariffs?

The last bit of this section lists examples of the above arguments. There are 1858 factory reports about spindle and looms growing faster than sheep. From the same year Marx quotes reports of the cotton trade not being able to keep up with the increase in self-acting mule spindles and looms. This leads us to the 3rd and final part of the chapter.

III. GENERAL ILLUSTRATION. THE COTTON CRISIS OF 1861-65

This might be painful. I have more or less just summarized the history Marx gives. Why have I done this and should you bother reading it? I don’t know the answer to either question. I think I did it to help me understand the gist of the argument. Feel free to skip all of it. I will make a few remarks at the end in summary.

Preliminary  History  1845-60
1845: “Golden Age” of cotton. Cotton prices are low and factories are growing. 1846: Factory capacity has already outpaced cotton production. Cotton prices are rising and factories are working short-time (less than full days) because of shortages. Finished cotton products have saturated the market which means that their prices can’t rise to compensate for the rise in raw material prices.
1847, October: A money panic, shortages continue. I assume that the money panic doesn’t relate to the cotton problem. Marx doesn’t expand much on this. 1849: A recovery happens. Perhaps some of the demand which is stimulating production comes from consignments… (Here we allude to the way credit can displace crisis). Cotton prices have fallen considerably allowing production to continue. This fall in price is not explained in the manuscript (unless I am overlooking something.) As the recovery accelerates large producers start to stockpile cotton supplies, causing anxiety for smaller producers.
1850: Scarcity of cotton resumes and prices rise.
1853 April: Prosperity again.
1853 October: Overproduction of cotton. Depression in the industry. etc. etc.

1861-64. American Civil War. Cotton Famine. The Greatest Example of an Interruption in the Production Process through Scarcity and Darness of Raw Material

Here Marx discusses the history of the Cotton Famine in England which was caused by a blockade on American cotton imports in 1861 after the start of the US civil war. There was a huge shortage of cotton just at a time when the market had been over-saturated through overproduction. A severe crisis ensued and huge numbers of workers lost their
jobs and had to go on public assistance. Wikipedia has a good, brief history: [http://en.wikipedia.org/wiki/Lancashire_Cotton_Famine](http://en.wikipedia.org/wiki/Lancashire_Cotton_Famine)

1860: The massive expansion of investments in mills and other fixed capital continues while a shortage of cotton begins. (I assume this shortage comes from people hoarding cotton in anticipation of the blockade the following year.) Prices are rising and people are beginning to look for new sources of cotton. There is talk of expanding railroads to India in search of cheaper raw materials. India is already helping absorb the excess production from England. This is still the two-part function of a colony today: absorb excess capital, provide cheap raw materials.

1861: It becomes obvious that manufacturers overproduced in the previous year. It takes several years for the market to absorb all this excess production. Cotton prices are way too high due to the blockade and there is a huge shortage of cotton on the market. Many of the bigger firms stockpiled cotton. The value of this hoarded cotton appreciated which averted the usual depreciation of the total capital that we might expect in a crisis.

Manufacturers begin adulterating their cotton products by adding other stuff to the cotton in the spinning process. They weave in flour which increases the weight of the products but, of course, lessens their use-value. These substitute materials are harder to work with and break more and so this lowers the productivity of labor. Hours are decreased, wages start to fall and strikes break out.

1862: Unemployment is high, in some districts as high as 15% with larger numbers working short-time. Many producers are small-scale capitalists and they are hit particularly hard by the crisis. Inferior cotton is being used everywhere which slows down production. Inferior cotton is being used everywhere which slows down production. Inferior cotton is being used everywhere which slows down production. Inferior cotton is being used everywhere which slows down production.

1863: The inferior cotton slows down production thus having a severe effect on wages. The cotton workers are on a piece-rate system. This means that the slower they work the less they earn. Wages sink to almost nothing. Meanwhile workers are being fined for making inferior products.

Unemployment and underemployment sky-rocket. The public relief committees employ workers at poverty wages in public works: street paving, rock breaking, etc. Any worker who complains about the wage is struck from the relief rolls. Marx points out that this drastic devaluing of labor power is a great gift to the capitalist class. Urban development is given a free gift from the industrial reserve army.

1884: The public works employ so many people that is becomes hard to keep wages down. The reserve army of labor dwindles and strikes break out in factories. This will not do for the bourgeois who protest until the Public Works Act is repealed. Though the capitalists class looks to free markets and global trade to eventually bring cotton supplies back to normal and absorb surpluses they don’t advocate the mobility of labor. The bourgeoise work against allowing emigration of workers from the cotton factory districts.
And here the manuscript breaks off…

What can we learn from this history? Obviously it is a great example of many of the themes of the chapter: changing prices of raw materials, appreciation and depreciation, agricultural production cycles not synching up with the rhythm of capital accumulation… I’m sure that in Marx’s time there were diverse opinions as to the cause of the crisis. For many it was probably seen as the result of external political causes. But Marx brilliantly outlines the variety of complicated factors the all weave themselves together. We notice that he begins his story before the blockade caused by the American Civil War. Thus he already establishes a cyclical rhythm of boom and bust caused by over-production and the delay in agricultural production to respond to the market signals being given by the industrial sector. Once the external shock of the cottage shortage is introduced, this boom and bust cycle is taken to an extreme. Not only is Marx able to highlight the way in which this external shock merely amplifies an already existing industrial-agricultural cycle, but he also makes some keen observations about the way in which the capitalist class acts as a class to preserve its class interests in such times of crisis. We might take these themes to heart in our own time. It would be easy to blame the crisis of the 1970’s on the OPEC crisis as many historians do. It would be easy to blame our present crisis just on the sub-prime bubble, or our own oil prices. But the problems caused by these fluctuations in prices only serve to expose much more fundamental rhythms of capitalist accumulation. As in the cotton crisis we can see the capitalist class today acting as a class, through the the state, to preserve itself.

Chapter 7 Supplementary Remarks

Marx begins by repeating some points from earlier. The fact that capitalists realize the value of their product in the market causes them to believe that it is through the market that value is created. Marx doesn’t complete this point but if he had perhaps he would remind us that the world of appearance, the subjective valuations between buyer and seller in the market, are the mechanism through which the law of value operates. The law of value is formed through the indirect linkage of all of the social labor process through this act of individual market exchange. Therefore it is easy to confuse the value-creating powers of labor with the subjective valuations that happen in exchange. We have seen, throughout these opening chapters, how that profit comes wholly from surplus value. Yet the rate of profit is modified by a variety of other factors like changes in the value of constant capital, turnover time, changes in value of labor power, etc. This is one more way in which we confuse these changes for the cause of value. We might notice that increased turnover time increases profit but this doesn’t mean that time itself creates value. We might notice that a decrease in constant capital costs causes profits to rise. But this doesn’t mean that constant capital is creating more value.
Is it possible for a firm to increase in size and maintain the same rate of profit? Obviously the mass of surplus would increase but this surplus would be calculated against a larger cost-price so the rate or profit will stay the same if all of the internal portions of capital stay the same: the organic composition and the rate of exploitation. This distinction between mass of profit and rate of profit will be crucial in Part 3 when Marx discusses the falling rate of profit.

What causes the rate of profit to change? A change in ratio of surplus value to the price of producing this surplus value is what causes the rate of profit to change. Thus changes in the rate of exploitation, the organic composition of capital, or the market prices of constant and variable capital all act to influence the rate of profit. If the market price of an input is changing this shows us the way productivity is really a social phenomenon. The difference between the labor time it takes a particular, concrete firm to produce a commodity and the labor-time it takes society in general to produce something is the difference between necessary labor time and socially necessary labor time. This explains the devaluation or appreciation of inputs. In general a rising organic composition of capital means a falling rate of profit. A falling organic composition means a rising rate of profit. If just the money value of capital changes due to a change in the value of money itself, then the profit rate only changes in name, not real values.

These brief remarks don’t tell us anything new but they do a good job of summarizing some of the crucial points from the last 100+ pages. It is now easy to see how the origin of profit in exploitation is obscured by all of the other contingent factors effecting the rate of profit. This obfuscation will be taken further in Part 2.

Part 2: The Conversion of Profit into Average Profit

Opening Thoughts

Herein lies theoretical ideas that have been hotly debated for well over a century now. Up until now we have assumed that price equals value and that profit is directly related to the amount of surplus value produced. But now, 140 pages into the 3rd volume of Kapital Marx explains that in conditions of capitalist competition prices don’t equal values and that profit is not determined by the surplus value produced by a firm. This has raised all manner of criticism and even ridicule from some corners. Bohm Bawerk made much of this in his criticism of Marx.

On the other hand Marx has told us that as we add more and more relations to our analysis of capitalist social relations our picture will become less and less like the rigid
model we began with. Those basic relational features will become increasingly blurred as the picture becomes more complex, more varied, and embraces more complications and exceptions. Still those basic features will continue to have a strong influence in the model. In fact they will have some ultimate determining influence. Of course if the addition of more and more relations (capitalist competition, credit system, state regulation, etc.) eventually changes the dynamics of the system so much that our original starting point no longer has any relevance then we must ask whether we were ever justified in choosing that starting point in the first place.

Our starting point is that in the exchange between two free individuals in the market a social relation is expressed. Though it appears to be a fleeting, isolated act of exchange it actually links the two parties in a vast chain of exchanges happening all over the globe. This apparent realm of freedom is actually profoundly limited by this network of relations. We are not free to sell or buy at any price we choose. We must sell at the market price. We are not free to buy as much as we want. We can only buy as much as we can afford given the amount of money we’ve been paid for our labor or the amount of profit we have made from production. What are these forces that constrain our choices in the market? How much choice do we really have?

For the Austrians value is purely subjective. Price appears through competitive valuations between free persons in the market. Surely the act of exchange entails a subjective valuation. But also, clearly, we are not free to reach any compromise in any exchange. The conditions of the market press down upon us at every moment. Once supply and demand balance out how are these prices reached? Why are relative prices so consistent (pencils always worth less than cars, bread always less than football stadiums)? Perhaps there is something very objective about this subjective valuation. Isn’t it true that in a system of market exchange we all have the same motivation: to maximize our gain for minimal effort? If everyone has the same motivation, this seeming realm of subjective freedom seems a little more like a realm objectively predictable behavior within the constraints of an objectively observable system within its own laws of motion. If we are trying to maximize gain for minimal output then we are essentially valuing our labor time when we enter the market.

All these products of labor, these commodities being exchanged, derive their ultimate value from their place in a social labor process. This process is indirectly regulated by the market. We don’t know the value of things before we sell them. We can only guess. The market tells us if we are right. In a model of a world of simple commodity exchange private autonomous consumers meet in the market to exchange the products of their labor. In exchange their private labor takes on a social dimension. Its value is weighed against the value of all other labors. If its production time took more than the socially necessary labor time it doesn’t allow the producer to sell it for more than the average price. The socially necessary labor time acts as a regulator of price, pulling all private labors into accordance with the social average. Of course this average is never reached by all. All private labors will not ever reach the same level of productivity at
the same time. That is because socially necessary labor time is an equilibrium point about which prices fluctuate, deviations always being sucked back towards it.

Many uninformed critics of the labor theory of value mistake these deviations for a flaw in the theory. Bohm-Bawerk argued that if deviations kept price from equalling value most of the time then the theory that labor time creates value is worthless. But this ignores the idea of value as a regulator. It ignores the indirect way in which private labor becomes social in a market. We can’t know the market price of our commodity while we are making it. We only discover this in the process of exchange. We throw our labor, embodied in commodities, into the market and we see what price it fetches. Socially necessary labor time isn’t very visible in the immediate act of exchange. But over time we can see it work its power as a regulator of price, as day to day prices fluctuate around average prices. If a product is being sold for prices far above its value this attracts other producers who start producing this commodity. Eventually prices fall. But they can’t fall too far because we must be able to reproduce the commodity the next day- we have to make at least enough to pay for our costs of production, compensation for our labor and money to put food on the table. Thus objective values are indirectly established through the subjective act of exchange.

Many things interfere with this process. Producers hold monopolies and thus can charge monopoly prices. Scarcity can keep prices above their values. Since we have some sort of basic, intuitive concept of value we complain about monopoly prices and scarcity rents. We say, “Damn the oil company is ripping me off!” and “These pharmaceutical companies are robbing me blind with these prescription drugs!” We say this because when prices deviate far from their values we sense that there is an inequality in exchange and all of our basic, ideological assumptions about markets tell us that exchange should always be fair- that this is the fundamental freedom/right of all people.

Should these interferences with the law of value cause us to reject the working of the law? No. All laws have interfering forces. Gravity and barometric pressure follow objective laws yet the weather is impossible to predict with 100% accuracy. It is through the averages that we can see them at work over time. So too with value. Monopolies don’t last forever. Most scarcity doesn’t either once production eventually adjusts to demand. This relation of deviation to the law is appropriate since we are dealing here with indirect regulation of value and labor through the process of market exchange. Maybe if we were dealing with a planned economy we would need a different standard of the relation between deviations and laws. But in market exchange this is most appropriate.

Why does Marx choose this relation- the buying and selling of commodities in the market- as the primary relation of his model? Why not start with the credit system, the money system, capitalist competition or even the labor-capital relation? Marx is following the law of presupposition: he always asks what relation presupposed what other relation? The credit system presupposes a money system. Money presupposes
commodity exchange. Capitalist competition presupposes capital which is a capital-labor relation (which is, dialectically, also a relation of capital to itself.) What form does the labor-capital relation take? The exchange of labor-power for wages between formally free individuals in the market. Thus market exchange is the fundamental presupposition and thus value as regulator of labor and price is our key concept.

As we add relations to the model, labor-capital, capital-capital, etc. We see alterations in the way the law of value operates. But at each level the regulating force of the law of value continues to exert influence. In conditions of simple commodity exchange value exerts itself as socially necessary labor time bringing private production in line, creating average prices, and overtime breaking down monopoly and scarcity.

When we add the capital-labor relation we observe the way value creates a fundamental antagonism between these two classes, one owning the means of production, the other nothing. The capitalist can use this monopoly on ownership to appropriate value from the working class, not in the sphere of exchange where a trade is usually fair and equal, but in the sphere of production where a worker’s time literally belongs to the capitalist. We see more ways in which prices can deviate from values through relative surplus value and the rising of wages above or below values. But ultimately it is the value relation which governs this labor-capital relation. It is the quest to expand value, to turn money into more money, which drives the capitalist class to exploit the workforce. But in this process capital itself takes on objective properties. It too has tendencies and laws which govern its motion through a fluctuating process of averages. Capital must always grow. It must do so at the expense of the working class. As we later will learn, this growth has its own internal limits set by the antagonism of the wage relation which is an antagonism of capitalism with itself. This is the theory of crisis. Because this theory of crisis requires an understanding of the capital-capital relation we don’t learn about it until after the later relation is addressed in part two of this video. This is why Marx gives the incomplete version of crisis in Volume One of Kapital. In Volume 1 we merely get a picture of crisis caused by fluctuations in the attraction and repelling of the labor force. This version of crisis solely depends on the labor-capital relation. The falling rate of profit presupposes the capital-capital relation.

When we introduce the other internal relation of capital, the capital-capital relation we see even more dynamic changes in our model. Most importantly individual prices diverge from values. The magnitude of profit a capital makes diverges from the amount of surplus value it creates. This is topic of Part 2 of Volume 3. If this is so, how does value continue to operate as a law of any relevance? Marx holds three aggregate equalities: 1. total, aggregate value created in society= total, aggregate prices, 2. Total profit=total surplus value, and 3. average rate of profit in value terms equals average rate or profit in money terms. Though individual prices and profits my vary from their values, these aggregates remain.
On the other hand, saying that total-price equals total surplus value isn’t enough to make the law of value still relevant. After all, value comes about from the exchange of specific commodities in the market and from the network of social relations that this chain of exchanges represent. The total social product doesn’t get exchanged with anything. Bohm-Bawerk develops this line of criticism. He further argues that putting two aggregates side-by-side doesn’t tell us anything. I could say total prices are equal to the total weight of all commodities, but that individual weights differ from individual prices. This wouldn’t be much of a theory of price. (More on Bohm-Bawerk’s criticism later.) This is why Marx takes great pains to explain how changes in the productivity of labor always mean changes in prices and the rate of profit. Ricardo had argued the same thing. In fact Ricardo abandoned the idea of tying price to direct amounts of labor, instead stressing how changes in labor effected prices. Marx agrees that, at this level of abstraction, we see the law of value operating not in the simple manner of prices=value, but in this more general sense that changes in value create proportional changes in price. Yet Marx goes further than Ricardo in actually showing the mechanism by which labor-time is transformed into these prices with his theory of “prices of production”.

Though “prices of production” don’t have the same exactitude and simplicity of “prices=value”, the quantitative nature of the theory is still real and clearly visible. When workers are paid less profits rise. When productivity rises profits rise, at least in the short run. Commodities that require more labor time (cars, stadiums) are priced higher than products that take little labor time (pencils, staples). And when labor is completely eliminated from a task (like duplicating information which is now done with the click of a button instead of by scribes and copyists) that tasks loses all exchange value. The exact quantitative proportions are altered but the basic movements are all there.

The qualitative dimension is also there. Social labor is still regulated through market exchange. Profit is still made by buying labor-power and exploiting it. Capitalist are still capitalists. Workers are still workers. The social relations which the labor theory of value is meant to explain are still the same. And these social relations are our goal and our starting point. To return to Bohm-Bawerk’s criticism, we are not interested in a weight-theory of value because we know that prices are not meant to apportion weight. Prices apportion labor time. This is an observable phenomenon and it lies at the heart of what is distinctive about a capitalist economy. When we keep this theoretical starting point in mind objections like Bohm-Bawerk’s melt away.

We should keep all of this in mind when reading Part 2 and when considering the various criticisms that have been leveled at Marx for his theory of the Prices of Production.

The other famous controversy over Volume 3, Part 2 is the matter of the transformation problem. I have talked about this more extensively in my video “What Transformation
Chapter 8. Different Compositions of Capitals in Different Branches of Production and Resulting Differences in Rates of Profit

From the title the concept seems clear. The composition of capital is short for the “organic composition of capital” or “value composition of capital” which is the ratio of constant to variable capital. If a firm devotes more investment to constant capital than variable capital it should have a lower profit rate than one which hires lots of workers and no machines.

Marx begins by explaining that he will make the assumption in this chapter that the rate of surplus value is uniform throughout the economy. This could just be a theoretical abstraction for the purpose of examining different value compositions of capital. But instead Marx goes further and argues that he is justified in this simplification by a real trend in the economy toward a uniform rate of surplus value. Yes he says that different levels of skill make it harder to see this, referring us to the distinction between simple and complex labor in Vol. 1, but that the forces of capital tend to press evenly upon all labor everywhere, reducing it to a common ratio of surplus labor to wages. Of course there are obstacles to this process everywhere, but the tendency of capital is to slowly, over time, remove these barriers and create a uniform rate of exploitation. (I was surprised to see him refer to Adam Smith here. If anyone can explain this Smith reference more I’d be much obliged.)

This reasoning is common in many of Marx’s arguments. The idea that capital has inherent tendencies, inherent within the basic form of capital itself is similar to the idea of value. In the same way that, to the extent that markets penetrate the social relations of society, we can make observations about the way in which the law of value breaks down barriers, monopolies, etc. to establish socially necessary labor time, we can also observe capital, to the extent that it dominates production relations, slowly imposing its internal logic around the heterogeneous and uneven world around it.

The next important distinction to make is between mass of profit and rate of profit. In all our previous analysis of profit rates it might be easy to forget that a lower profit rate doesn’t mean less surplus value is being produced. It just means that producing this surplus value is more expensive. The mass of surplus value in society can grow at the same time that profit rates are falling. In fact this is the prediction of the falling rate of profit. That belongs to part 3 of the book but this distinction will also be important in this part because Marx will be distinguishing between the aggregate mass of surplus value created by the whole economy and the amount of surplus value each individual capitalist can claim as their own profit.
In Part 1 we often compared the organic composition or turnover times of one firm against another. But in reality such glaring differences in organic composition or turnover are more likely to exist between different industries. The same process of competition which tends to even out differences in the rate of surplus value also evens out differences in organic composition and turnover within each industry. But between different sectors of the economy these differences are still quite drastic. The service sector employs a lot of people and does not have big expenses in machines and fixed capital. It therefore naturally has a lower organic composition than the automobile industry which employs a lot more constant capital relative to variable. From here on, when Marx talks of the organic or value composition of a sector/sphere/industry he is talking about the average organic composition. Individual firms may fluctuate above or below this average, but competition pulls them back toward it. The average itself may change over time, but pulling stragglers along with it. The same logic goes for discussions of turnover time.

Marx then goes on to define three terms which sometimes cause some trouble for readers: technical composition, value composition and organic composition of capital. Many writers who write about Kapital complain that Marx uses these terms too interchangeably and that he changes his definitions of them. Sometimes this is used to claim that his thinking about them changed over time and even that perhaps his understanding of them was incomplete. A lot of writers stick with organic composition for the most part though David Harvey prefers value composition in his book Limits to Capital. (critique that term of Harvey’s which attempts to show the way in which value composition is embodied in physical forms….)

This, tripartite distinction has a dialectical basis. It is similar to Marx’s distinction between use-value, exchange-value and value. It’s theoretical basis is the idea that in a market social relations become reified in the physical form of commodities. These commodities have all sorts of technical features: smell, taste, particular uses, etc. But they also are the means of coordinating a social labor process. Thus they also have the quality of having a price. Price is abstract. It is not related to any physical-material-technical quality. Price is the mechanism for measuring and apportioning social labor. Thus value is manifest in exchange value and exchange value is attached to particular, concrete use-values.

Similarly the process of production has basic technical features depending on the given level of productivity. No matter how the labor is coordinated (markets, feudalism, socialism, parecon, etc.) the material aspects of the labor process determine the ratio of people to machines to raw materials. This is the technical composition of capital. It is purely a description of use-values which abstracts from the amount of money paid for the different elements of production. The technical composition measures numbers of people, numbers of machines, numbers of bolts, barrels of oil, etc.
But all of these people, machines, bolts and barrels have a price. This price is the mechanism by which social labor is apportioned. This price determines how much a capitalist can afford to spend on each item, and how much to charge for the final product. Thus the value composition of capital measures the values of each element of production. A number of people becomes wage expenses. A number of machines becomes fixed capital expenses.

The technical and value compositions have an inner relation. The technical composition determines the proportions that are needed to produce a given level of output. The value-composition determines how much each element costs and how much can be invested in production. Both elements are always changing. Changes in productivity might mean less workers are needed when more machines are bought. Changes in the value of raw materials (caused by changes in the technical composition elsewhere) mean that the technical composition can be changed without changing the amount of money invested. These feedback effects require a third term that distinguishes between changes in value due to changes in the technical composition in the firm and changes in value due to changes in value of the elements of capital caused by changes in productivity elsewhere. This is the organic composition of capital. It ties the material world of use-value to the social world of value. It stands with one foot in each world, reflecting their interaction effects. Organic composition refers to changes in the value-composition which are caused by changes in the technical composition, as opposed to changes caused by alterations of the value of raw materials, labor, etc. If a firm decides to build more machines so that it can increase output with the same number of workers this is a rise in the organic composition. If a firm finds cheaper raw materials which allow it to buy the same amount of constant capital for less money this is a change in the value composition.

It is sometimes pointed out that Marx’s use of organic composition and value compositions is inconsistent. Marx apparently started developing these terms later in his writing of Kapital. Their appearance in volume 1 did not occur until the 3rd edition. David Harvey, in his book “Limits to Capital”, quotes a passage from Marx’s “Theories of Surplus Value” in which the relation between value composition and organic composition seems to conflict with the definition given in Kapital. People also complain that Marx uses the two terms quite interchangeably in Volume 3 which blurs the distinction. From the definition I give above it seems like organic composition describes internal changes to the firms composition while value composition describes the feedback effects of productivity on other firms yet Marx will use organic composition to describe the economy as a whole as well. As we read through Vol. 3 we’ll have to pay attention to how this term is used to see if we can make sense of this distinction.

It is obvious that the distinction will be important to our discussion of the falling rate of profit. There is a reason that a rising organic composition is associated with the FRP. The FRP argues that changes in the ratio of machines to workers, the technical composition, alters the value composition. This is what the organic composition seeks
to explain. If the value composition was rising because of increased prices of raw materials this would not be related to the FRP argument.

Harvey makes the distinction that the organic composition makes more sense in relation to the individual firm’s value composition changing due to changes in the technical composition. He reserves organic composition for individual firms and uses value composition for referring to the entire economy. But this is Harvey’s own distinction. Marx uses organic composition most of the time.

............... moving on

What does variable capital measure? It is the sum of money spent on wages. That lets us understand the value composition. But those wages correspond to a given mass of workers. This mass of workers is part of the technical composition. The value created by this mass of workers is greater than their wages, than variable capital, than their contribution to the value composition. We don’t necessarily know what this value is unless the rate exploitation is given. If we know the rate of exploitation then we can look at the value of the variable capital and both know how many workers are represented and how much surplus value they will produce for capital. For our purposes we are assuming that surplus value is the same for all firms. This allows us to see what changes come about from changes in the organic composition or changes in the prices of the elements of capital.

Marx shows, through some examples, that different technical compositions of capital will result in different profit rates. Firms with a lot of workers and little constant capital expenses (low organic composition) create more surplus relative to cost-price. Firms with lots of machines and few workers (high organic composition) create less surplus relative to cost price. The same is also true if the value composition is changing due to the cost of constant capital or variable capital changing.

Here comes the crucial point/problem. The labor theory of value predicts that lower organic compositions must create more surplus value than firms with higher organic compositions. If this were not the case, if in the real world we saw profit accruing to firms with no relation to the ratio of variable to constant capital, then this would seem to question whether exploited labor is really the source of profit. “If this were not so, then value and surplus-value would be something else than materialised labour. Since capitals in different spheres of production viewed in percentages — or as capitals of equal magnitude — are divided differently into variable and constant capital, setting in motion unequal quantities of living labour and producing different surplus-values, and therefore profits, it follows that the rate of profit, which consists precisely of the ratio of surplus-value to total capital in per cent, must also differ.” The profit rate must vary if the organic/value compositions vary!
But, of course, profit rates in a capitalist society tend toward average profit rates even as their organic/value compositions diverge. Why? Higher profit rates attract investment in that industry. More investments raises supply which lowers prices so that supply and demand balance. This brings down profits to an average level. The opposite happens with low profit rates. Of course this is a theoretical abstraction. In a real economy profit rates are always shifting as firms compete. But in the long run, an average level of profits is established. Does this mean that the labor theory of value is wrong? Let us find out.

The phenomenon of average profits is a phenomena in which the magnitude of profit corresponds to the magnitude of capital invested, or cost price. If I invest $100 in my firm, and the average profit rate is 20%, then I will make $20 in profit. If invest $1000 dollars my profit will be $200. It doesn’t matter if 1% or 99% of this capital is invested in labor. I get the same profit either way. This would make it appear that profit comes from capital itself and not from labor. But it is in this world of appearance where Marx always shows his strength. Of course capital is self-expanding. Capital does create value. But it does so because it incorporates the body of the laborer into capital. The worker breathes life into capital. But in doing so he breathes life into an antagonism.

…And we are not quite up to the chapter on average profits yet anyway. There are a few pages left to go in which Marx discusses other things which should vary profit rates.

Differences in surplus value alter the profit rate. Of course, in this chapter we are assuming that surplus value is the same across the economy. But Marx takes this opportunity to point out that differences in the rate of surplus value between countries is usually what causes different profit rates in different countries.

Marx reminds us that changes in turnover time create changes in profit rates as we saw in chapter 4. The ratio of fixed to circulating capital does not effect the profit rate unless this ratio also involves a change in the organic composition of capital or a change in turnover time.

In concluding Marx says, as timpani rumble in the background, that up until now we have assumed that prices equal values, and that profit equals surplus value. But if these two things are the case then we would have unequal rates of profit across the economy.

“…differences in the average rate of profit in the various branches of industry do not exist in reality, and could not exist without abolishing the entire system of capitalist production. It would seem, therefore, that here the theory of value is incompatible with the actual process, incompatible with the real phenomena of production, and that for this reason any attempt to understand these phenomena should be given up.”

We are about to solve this riddle, but it will involve relaxing some of the previous assumptions of the model as we introduce the relation of capitalists in competition into the picture.
Chapter 9: Formation of a General Rate of Profit (Average Rate of Profit) and Transformation of the Values of Commodities into Prices of Production

In all of the consternation, debate and quarreling over Marx’s value theory this chapter, chapter 9 of volume 3, lies in the center of much of that (though perhaps chapter 10 even more so). There are basically two lines of criticism leveled at Marx that draw heavily on this chapter: those associated with Bohm-Bawerk and those associated with Bortkiewicz. The latter criticism is known as “The Transformation Problem”.

Bohm-Bawerk’s main idea is that Marx’s theory of the prices of production and his theory of value contradicted each other. He said it was impossible for Marx to hold that both were true. In volume one Marx claimed that commodities traded at their socially necessary labor time. In volume 3 he now tells us they trade at their cost price plus average profit. For Bohm-Bawerk this was a thinly disguised admission that the labor theory of value didn’t work. He does admit that the logical structure of Marx’s argument flows very neatly and convincingly from Marx’s premises. But Bohm-Bawerk takes issue with these basic premises. Because of the errors in his premises, says Bohm-Bawerk, Marx’s value theory runs into trouble when, in chapter 9 of Volume 3, it actually steps forward to confront the real world and bumps up against the “prices of production”. This leads Bohm-Bawerk to launch a rigorous critique of many aspects Marx’s value theory. I plan to write a more sustained summary and analysis of Bohm-Bawerk’s criticism elsewhere so for our purposes here I will constrain my references to Bohm-Bawerk’s argument that there is a contradiction between the theory of value and the theory of prices of production. It should be pointed out, however, that much of the lay criticism of Marx’s labor theory of value that one confronts on the internet does not come from this notion of a contradiction between value and prices of production. Instead it mostly comes from Bohm-Bawerk’s more general critique of Marx’s assumptions. (Even here, however, most of the lay criticism online presents Bohm-Bawerk’s critique in a bastardized, simplified manner that doesn’t really stand up.)

Bortkiewicz’s argument, known as “The Transformation Problem”, is of a different nature though people sometimes conflate them. I deal with Bortkiewicz’s criticism and the Temporal Single System Interpretation’s (TSSI) response to it in my video “What Transformation Problem?” and the accompanying Math Supplement, so I will not go into this in detail here. Bortkiewicz argued that if the creation of average profits led to prices of production which differed from their values then both outputs and inputs must trade at their prices of production. In the mathematical examples Marx gives in this chapter he only changes the output prices. Bortkiewicz found that if one plugs the output prices back into the input side of the equation all hell breaks loose with the math. This mathematical inconsistency has been held as proof that Marx’s theory of prices of production, and even the labor theory of value, is internally inconsistent. The TSSI response is to ask why output prices should become the input prices of the same production period. They should be the input prices of the next production period. The TSSI argues that Marx’s value theory is temporal- that it describes the movement of
value through time. Attempts to collapse this temporal theory into neoclassical equilibrium models that simultaneously value input and output prices will necessarily arrive in contradiction.

My posting of this blog entry on this chapter has been delayed by many different circumstances one of which was my trip to the 2009 Rethinking Marxism conference in Amherset Mass where I heard Alan Freeman and Andrew Kliman give a tutorial on the TSSI. Freeman’s talk centered on his criticism of the idea of equilibrium price and equilibrium of supply and demand. While I have been aware of the TSSI’s temporal treatment of input and output prices as part of a larger critique of general equilibrium, for some reason I had never realized that this extended to a critique of the basic idea of supply and demand meeting. I’ve since been reading through a bunch of Freeman’s papers (as well as some by Kliman) trying to wrap my head around this idea. I think that this will most likely change my reading of volume 3 and perhaps cause me to edit both the already-posted and the yet-unposted drafts of my blog entries on volume 3. The TSSI’s distinction between value and exchange value, it’s claim that Marx’s value theory is a temporal, non-equilibrium theory have bearing on both the Bohm-Bawerk and Bortkiewicz criticism.

When reading this chapter with these debates in mind I am asking myself two questions. 1. What is the relationship between value, price of production and price and how does Marx justify the use of value if values don’t equal prices of production? 2. In relation to the Bortkiewicz critique I am looking for evidence that Marx conceives of his theory in a temporal manner. I will conclude with some thoughts on both of these points. Let’s actually see what Marx has to say.

Since the theoretical problem Marx is tackling involves how different organic compositions can have the same rate of profit Marx abstracts away all variations in surplus value and turnover time so that we can look specifically at the relation of organic compositions themselves to profit rates.

Marx begins with a table that presents 5 different capitalists, each with a different organic composition of capital. Each has a cost price of 100, but the different distribution of capital between constant and variable capital means that each produces different amounts of surplus value and therefore has a different rate of profit. The prices of the total product of each firm (value of product) are also different since the price of the total product is c+v+s.

Now what if we treat each of these 5 capitalists as if they were different branches of the same firm? Marx suggests we imagine it is a cotton mill with 5 different internal departments: spinning, carding, etc. With today’s multinational corporations scattering production all over the globe we could think of some modern examples of firms with such an internal-division of production between different departments. In such a firm
the main concern is the total rate of profit. Totaling up the columns in his example Marx shows that the total surplus value is 110 and total cost price is 500. Dividing surplus value by cost price he finds that the average profit for the firm is 22%. The average profit for each department of the firm is 22%.

In order for the average profit to be 22% the “value of the product” for each department must change. Department 1, for instance, has a cost price of 80c+20v with a surplus value of 20s. The value of the product produced by department 1 is 120. But at this selling price it would only achieve a profit rate of 20%. In order to achieve average profits we must sell it for 122 which gives us a 22% profit rate. Marx then goes on to show (table 3) how by varying the value of the product in each sphere up or down the departments can obtain an average rate of profit. The total value of the product remains the same, the total surplus value remains the same, but the surplus is redistributed between departments via these changed prices. These new prices, which deviate from their values are c+v+p where p is the average profit redistributed to each firm. Marx calls this new price the “price of production”. Simplified we might say that prices of production equal cost-price plus average profits. Prices of production are still a function of surplus value, but the surplus is distributed differently than it would be if there was no average rate of profit.

Before showing this 3rd table Marx points out that the price of production for each of his firms doesn’t need to result in all “values of the product” being equal to 122. This is because different amounts of constant capital enter the actual value of the final product depending on how much constant capital is used up in production. Remember that we count constant capital differently when measuring profit rates than when figuring prices. The entire outlay on constant capital enters the figuring of the profit rate, even if little of it is only used up. But only this used up portion enters the prices of commodities.

All of these observations hold true when we break up our multi-department firm and view this as a matter of 5 different firms competing in the market. Each firm sells its product in the market at its price of production. This price allows it to recoup its cost-price. But each firm does not receive profits in relation to the total surplus value it has created. Instead it receives the average profit which could be higher or lower than the surplus value the firm actually creates. It is as if each capitalists is just a stockholder in a large-firm receiving interest on their investment in relation to the total size of their investment. It is the magnitude of their investment, the cost-price, that determines the magnitude of their profit, not the actual amount of surplus value they create.

This analogy which compares capitalists in competition with capitalists as different parts of the same firm points to an important aspect of Marx’s method. He even restates the analogy in different form a few pages later, asking us to image that all five capitals represents different investments of one man. The analogy is quite true to Marx’s method which was to treat the labor-capital relation before he treated the capitalist-capitalist relation. The observations we have made about price, value and profit from analyzing
the labor-capital relation still hold. But they hold for the total labor to total capital relation. Individually between capitalists the correlation between value and price is less direct, mediated through this matter of average profits. In the aggregate total value=total price, total surplus value-total profit, and total value rate of profit= total money rate of profit.

But then Marx points out what could be misinterpreted as a paradox. How can we say that total price=total value when we know that the prices of some commodities enter the cost-price of other firms? When a steel company sells $1000 of steel this $1000 becomes the input price of other firms. It seems like output prices can count as the input prices of some firms. This would mean that we count the value of some products twice. Surely this would cause total price to be higher than total value. This puzzle Marx poses is reminiscent of Bortkiewicz’s “transformation problem” in that it plugs output prices into input prices and results in a contradiction. And similar to the TSSI refutation of Bortkiewicz’s transformation problem, Marx refutes this puzzle with similar logic though he doesn’t explicitly refer to any temporality. He says that you can’t count surplus value twice in the calculation of total price. The profits of an individual firm can’t make up their own cost-price. They can enter the cost-price of another firm. (If a firm is producing directly for consumption its total price enters directly into the calculation of total price.) But if its product is to be bought by another firm for production we must subtract this value from our calculation of total prices. To find total prices we add up all the cost-prices of all the firms and then add up all the profits. But first we subtract all the profits from the cost-prices.

How is Marx’s point here similar to the TSSI? Marx’s point that surplus value can’t be counted twice, as both an input and output, without reaching a contradiction is similar to the argument of the TSSI which says that we can’t plug output prices into the input prices of the same firm, in the same production period and expect to achieve the same price=value equality. Every production period new value is created and this must count toward the value of the next period, not the current one. In these two paragraphs Marx could be seen using a-temporal logic. After all, he is merging the output of one firm into the input of another, two production periods, into one. On the other hand he is saying that if one does this, you can’t count the surplus value twice. So there is an implicit understanding of the temporal nature of the problem.

Marx then turns to a more general question about input prices. Aren’t input prices also calculated as prices of production and not values? Isn’t constant capital bought at its price of production and not its value? Isn’t variable capital indirectly related to the prices of production of the means of subsistence? Yes it is, Marx says. As we move backwards in our equations we see that every c and v reduces itself to cost-price plus average profit. But for every instance where average profit exceeds the surplus value of a particular product there is a counter-instance of a product whose surplus value falls below average profit. These values add up in the end so that our aggregate equalities hold. “Under capitalist production, the general law acts as the prevailing tendency only
in a very complicated and approximate manner, as a never ascertainable average of ceaseless fluctuations.”

From such an argument it is hard to buy the commonly repeated claim that Marx “forgot to transform input prices.” Bortkiewicz’s entire critique is based on this idea of a “transformation problem” - that Marx forgot to transform input prices into prices of production and that when we do so we get inevitable mathematical errors. It is true that Marx does not provide mathematical tables to demonstrate how such transformations would happen, but in this paragraph he most definitely shows that he is aware that input prices need to be transformed. But he doesn’t seem worried that this causes any mathematical problems, probably because, as he states above, he realizes the surplus value can’t be counted twice.

“Since the general rate of profit is formed by taking the average of the various rates of profit for each 100 of capital invested in a definite period, e.g., a year, it follows that in it the difference brought about by different periods of turnover of different capitals is also effaced. But these differences have a decisive bearing on the different rates of profit in the various spheres of production whose average forms the general rate of profit.” p.161

This paragraph seems a confusing way of beginning the argument that Marx develops over the next page and a half. I think that the sentence on the following page gives us a better idea of what Marx is trying to say: “The formation of the average rate of profit is, therefore, not merely a matter of obtaining the simple average of the different rates of profit in the various spheres of production, but rather one of the relative weight which these different rates of profit have in forming this average.” (Italics added) I did some head scratching after reading that. Is the average rate of profit an average of the individual rates of profit or not?

First we must realize that the “individual rates” of profit refer to what the rate of profit would be if there was no average rate of profit. They are figured as s/(v+c). In Marx’s first example he wants to make it very obvious that each firm has a different organic composition so he picks his numbers so that the total capital invested (v+c) adds up to 100 for each firm. This allows us to think of the organic composition as percentages. Individual rates of profit can be thought of in this “percentage logic”. It doesn’t matter how much total capital is invested when we are looking at individual rates of profit. The proportion of total surplus value (s) to total cost-price (c+v) is what matters.

But things are different with the general rate of profit. The general rate of profit is formed by dividing total surplus by total cost price. This means that the magnitude of the capital invested is important. If my profit rate is a healthy 50% but I only invest 100 dollars a year I don’t add much to the average profit rate. If my profit rate is 13% but I invest a million dollars each year I have a much bigger influence on the general rate of profit. So we can’t just take the average of the different rates of profit to find the general
average since firms effect the general profit rate differently according to how much they invest.

This argument, rather simple when you think about it, is made even more confusing by a mathematical typo Marx, or Engels, makes in one of his examples. Unlike the other error I mention earlier this one is not corrected in the Internet Archive version. In Marx’s numerical illustration of this concept he says:

“Let us take four capitals A, B, C, D. Let the rate of surplus-value for all = 100%. Let the variable capital for each 100 of the total be 25 in A, 40 in B, 15 in C, and 10 in D. Then each 100 of the total capital would yield a surplus-value, or profit, of 25 in A, 40 in B, 15 in C, and 10 in D. This would total 90, and if these four capitals are of the same magnitude, the average rate of profit would then be 90/4 or 22½%.”

The equation should actually read 90/400, not 90/4. 90/4 gives us 2250% rate of profit. Again, the equation for the rate of profit is found by adding up all surplus values (90 in this case) and dividing them by the total cost-price (400 here). Marx’s typo makes it look like he is dividing the 90s by the 4 capitalists which could lead to a misunderstanding of the equation for the rate of profit. The next example he gives (720/5500) is correct.

To conclude this whole point Marx gives us two factors that determine the general rate of profit:

“1) The organic composition of the capitals in the different spheres of production, and thus, the different rates of profit in the individual spheres.
2) The distribution of the total social capital in these different spheres, and thus, the relative magnitude of the capital invested in each particular sphere at the specific rate of profit prevailing in it; i. e., the relative share of the total social capital absorbed by each individual sphere of production.”

This whole point may help to explain an earlier paragraph in which Marx says that though differences in turnover time effect the individual firm’s rate of profit they fail to effect the average rate of profit. If I understand Marx correctly on this point, I believe he is saying that total surplus value produced relative to total cost price within a given period is what effects the general rate of profit, regardless of whether or not these aggregate totals involve more or less turnovers. (I am not sure about this interpretation at all. Any thoughts from others would be welcome.)

In case we were too daft to realize what is going on Marx points out that we are now moving from a discussion of value to a discussion of prices of production. In volume one where we dealt with socially necessary labor time between commodity producers and with the aggregate labor-capital relation we could deal with value as a qualitative expression of capitalist social relations. When we introduce competing capitals we see a further transformation of value into prices of production. Firms producing at high
value/organic compositions sell their products at prices of production above their real values. Firms producing below the average value composition sell their products at prices of production below the real value of the product. It should be pointed out that prices of production are still a step removed from market prices which fluctuate with supply and demand.

In moving from value to price of production is anything changed about the theory of exploitation? Clearly the relative degree of profit accruing to individual capitalists diverges from the amount of surplus value they produced, but it still remains a fact that workers must produce more value than they are paid if profit is to exist. The price of production is still higher than cost price. Now, cost-price is also modified by our new perspective because constant capital is bought at its price of production instead of its value. It is the money price of this constant capital, this means of production, which is important to the capitalist, not the actual value embodied in it. Profit still takes place even with these modified prices.

(The groundwork for this journey from value to production price is laid by Marx in chapter one of Volume one (Bohm-Bawerk could have benefited from reviewing this) when Marx explained that prices diverge from values all of the time. When exchange values diverge from values (which they do most of the time) this allows the sellers of commodities to get more or less value in exchange than the actual value of their product. This happens because money is the abstract form of value: when prices rise above values the seller appropriates more abstract labor than is represented by the commodity. Marx often assumes, for the sake of specific arguments, that prices equal values. But in the real world, he tells us in many times over, prices do not equal values. They don’t even equal prices of production. It is this constant movement of capital in search of these super-profits (these prices above value) that explains the dynamic motion of capital. This is why the law of value is better than just a theory of price - it describes the movement of prices in non-equilibrium over time.)

One could easily read over this paragraph and miss another, parallel, argument that is going on. This parallel argument is of special interest to us since we are reading this chapter with the TSSI-vs.-Bortkiewicz issue in mind. In Bortkiewicz’s critique of Marx’s transformation he attempts to do the math that Marx “forgot” to do. He plugs prices of production back into the inputs of Marx’s tables. Because new surplus value is being added each production period this keeps the numbers from adding up. The 3 aggregates (total value=total price, total profit=total sv, total money rate of profit=total value rate of profit) can’t all hold. In order for Bortkiewicz’s model to work at all he has to sever prices and values into two different columns. He has a column for input values and another for input prices, a column for output values and another for output prices. This “dual system” is another thing critiqued by the TSSI which argues for a “single system”. The TSSI argues that capitalists buy their means of production at their prices of production, not their values so it is ridiculous to have two different figures moving simultaneously through the tables.
Marx’s comments in this paragraph (p.164-165) seem to conform with the TSSI argument:

“But for the buyer the price of production of a specific commodity is its cost-price, and may thus pass as cost-price into the prices of other commodities.” “It is necessary to remember this modified significance of the cost-price, and to bear in mind that there is always the possibility of an error if the cost-price of a commodity in any particular sphere is identified with the value of the means of production consumed by it.”

Wow! Isn’t this the very same error Bortkiewicz makes? Then Marx says, “Our present analysis does not necessitate a closer examination of this point.” In other words, we don’t need to worry about the fact that means of production are bought at their prices of production. “The cost-price of a particular commodity is a definite condition which is given, and independent of the production of our capitalist, while the result of his production is a commodity containing surplus-value, therefore an excess of value over and above its cost-price.”

Capitalists buy commodities at their prices of production! So we must use these figures when calculating the new prices of production! We do this by dividing the new aggregate surplus value created by this aggregate cost-price.

Marx then gives us an updated formula for the price of production of a commodity. Before we had said price of production=k+p, or cost-price plus profit. But profit is really the average rate of profit multiplied by the size of the capital invested, or kp’ (p’ being the general rate of profit). So now our formula for the price of production is k+kp’.

This allows us to identify the 3 things which can change the price of a commodity. 1. If the general rate of profit changes the price of production can change without any change in the actual value of the commodity, the actual amount of living labor in the commodity. 2. If the productivity of the workers making the commodity changes. That is, if there are more or less workers relative to machines this changes the value of the commodity. Also, if the value of any of the elements of the cost-price change this will change the price. And 3, there can be a combination of 1 and 2.

Changes in the general rate of profit are long term changes, taking place over long periods of fluctuation. Therefore most short-term changes in prices are due to changes in the amount of labor time going into a commodity. Changes in the general rate of profit can happen through changes in the rate of exploitation, changes in the value of constant or variable capital, or changes in the overall organic composition of capital.

Marx’s next point, spanning 167 to 168, is about the difference between appearance and essence…. the way the formation of a general rate of profit obscures surplus value. We have already seen in part one of this book that since the individual rate of profit is effected by all sorts of things like the cost of constant capital, turnover time, etc. that
this obscures the fact that surplus value comes from labor alone. But, back in part one, at least the total surplus value produced by a firm was equal to its total money profit. With prices of production this is severed as well. Surplus value, exploitation of workers, is even more obscured. Now that money profits depend on changes in a general rate of profit, and since this general rate of profit is shaped forces way beyond the amount of labor employed in a specific firm, the origins of profit are even more obscured. It’s obscured to the capitalist, the worker, and to the bourgeois economist alike.

A theory like Marx’s, which makes such a clear distinction between essence and appearance, should rouse suspicion in us. We want our theory to be able to explain reality. If the theory opposes itself to reality, if it claims that any real phenomenon that negate the theory are merely illusions of a world of appearance, delusions of bourgeois ideology, then how do we know if it is true? How do we know if it has anything useful to tell us about the world?

What Marx is doing is to show us that this world of appearance is not an illusion. It is a necessity of the basic structure of surplus value and markets. We can only express the social relations of capital through the market. In volume 1 Marx explains this fetishism—that social relations take on the forms of relations between things, commodities. Much of Volume 3 seems like an extension of this framework. Marx is showing how surplus value must be expressed through prices of production and average profit rates, how it necessarily takes on an appearance that obfuscates the underlying logic.

“How could living labour be the sole source of profit, in view of the fact that a reduction in the quantity of labour required for production appears not to exert any influence on profit? Moreover, it even seems in certain circumstances to be the nearest source of an increase of profits, at least for the individual capitalist.”

It certainly is a shock to some people when they hear that Marx’s theory of crisis is that rising productivity causes profit rates to fall. It seems contradictory. But capitalism is a contradiction. The theory of prices of production really requires a theory of the falling rate of profit. We can’t have one without the other. If changes in the organic composition within the individual firm do not change the individual profit rate then we must seek theoretical confirmation in changes in the aggregate profit rate. These changes happen over long stretches of time as minor changes in fluctuations in either direction cancel each other out.

Closing thoughts

I am convinced by the Temporal Single System Interpretation and its refutation of Bortkiewicz’s “transformation problem.” The few passages that deal with the issue of temporality, input and output prices, etc. seem to suggest a temporal, single-system interpretation. When we look at the history of the transformation problem, its origins in marginalism and general equilibrium models, it is even more obvious that Marx was not
theorizing within the context of a theory of general equilibrium in which output prices should be plugged back into the input-side of equations.

The Freeman papers I mention earlier make an even stronger point: equilibrium prices are not the norm. Most of the time supply and demand don’t meet and price doesn’t equal value. This is something Marx points out very early in Volume 1 of Capital. When there is too much supply products sell below their value and this causes labor to be withdrawn from a sphere of production. The opposite happens when supply is too low. But these alterations of

Bohm-Bawerk’s critique, though not as influential in the academy as the “transformation problem”, is more worth pondering. I feel a bit torn on how to characterize Bohm-Bawerk’s arguments. Some of them are cheap tricks derived from overly-simplistic reductions or mischaracterizations of Marx’s argument. Yet he also has some brilliantly crafted and well-articulated criticisms that anyone who holds to the validity of the labor theory of value should be able to respond to.

Bohm-Bawerk asks a good question: What relevance is the labor theory of value if commodities don’t trade at their values?

The most basic answer is to point out that Marx nowhere claims that prices have to equal values all of the time. This is what distinguishes his theory of value from the Smith and Ricardo and from the marginalist tradition. This theory is not just a theory of price. It is a theory of all that goes on in the motion of capital and labor. Prices fluctuate everyday with supply and demand. But in the long term we can see relations between value and price. Yet, Freeman cautions, this doesn’t mean we should treat Marx as an theorist of equilibrium price. It’s not that in the long run values act as a center of gravity pulling prices into them. This is because values change over time as well. This means that though prices are constantly pulling away from and falling back towards values, values are constantly moving forward and prices are constantly diverging from value. The system never reaches equilibrium. It never rests. This is why it is perfectly reasonable for Marx to theorize about a divergence from value.

Yet what is the significance of the theory of value now? Has Marx replaced it with a theory of prices of production? Before we introduced average profits into the picture value was the mechanism by which the social labor process was apportioned. The formation of socially necessary labor time was what allowed consumer demand in the market to have an effect on the apportioning of social labor. Now competition leads to average profits what is explained? How does labor time exert a force upon the market? Are any of our conclusions about the qualitative aspects of the LTV still valid? How is labor apportioned? How are social production relations expressed? And is there any quantitative connection between socially necessary labor time and price or are the two irreparably split?
Both the qualitative and the quantitative aspects of the LTV still have a strong presence in the theory of the price of production. Even if the profits that accrue to a capitalist don’t correspond precisely with the surplus value of a firm, profit is still a function of surplus value. Profit is still made by getting more work for less wages. Thus all of Marx’s observations about the dynamics of the labor-capital relation still hold true.

Quantitatively there is still a correlation between price and value. Price equals cost of production plus average profit. All of the surplus value of the economy is pooled together and distributed equally among capitalists as average profit. Equal profit for equal investment. Marx has already said, earlier in this volume, that capitalists and workers value the labor time of the worker differently. For the worker an expenditure of labor is an expenditure of his own life. But, Marx explains over and over, while variable capital costs the capitalist a wage, surplus value costs him nothing. So how does a capitalist know how to price his surplus value? He doesn’t. He takes the average profit and doesn’t know any better.

Sometimes we see debate over the meaning of Marx’s first model for the LTV. He begins Kapital Volume I talking about commodity production in the abstract, as if he was discussing a society of simple commodity producers, each individual owning his own means of subsistence. Later he adds in the capital-labor relation and the model becomes more complex. One of the reasons for doing this, there are others, is that the labor-capital relation takes the form of market exchange anyway, of the buying and selling of labor power, and so this market mechanism (through which we first observe the LTV) presupposes the wage relation. But an important difference in the two levels of abstraction is this notion of the valuation of a commodity. For the capitalists the valuation of surplus labor is very different than it would be in a society of independent producers. No matter how much machinery I might buy to help me make shoes I have to charge enough money to compensate myself for my labor time or else there is no point in continuing to produce in an industry. For a capitalist there is no urgent need to have surplus value fully realized in price. Even if it was realized there would be no way of knowing it had happened because capitalists don’t keep close watch of the ratio of surplus labor time to paid labor time. (I wonder if these observations about the valuation of labor hint at more of a Smithian concept of value as “toil and trouble”- as a subjective valuation of labor time like that advocated by the Mutualist Kevin Carson. I think that my above points work quite well in explaining why average profit replaces surplus value in Volume 3, but I wonder if my arguments veer to close to a subjective take on the value of labor…)

Do prices of production still regulate labor time? Yes. After all, a part of the price of the price of production goes to wage labor. The cost of production must at least be realized in the market. If a capitalist can’t sell enough products to pay wages to the workers then he goes out of business. Beyond cost of wages, labor is apportioned in a more general way in the market. The amount of surplus labor might vary yet average profit stays the same. So the apportioning of labor time is less direct, more subtle. On the macro level,
total value equals total price. On the macro level the capitalist class exploits the working class. Another quantitative regulator of the relation between prices of production and value is the falling rate of profit. As the ratio of past to living labor increases profit rates start to fall, devaluing the capital invested in small proportions of labor.

Chapter 10: Equalisation of the General Rate of Profit Through Competition. Market-Prices and Market-Values. Surplus-Profit

While the previous chapter may be more famous for the controversial questions that have been raised about it, chapter ten seems to be the space where Marx provides the theoretical explanation of the relation the prices of production to the larger scope of his value theory. It is a really fascinating chapter containing a lot of important details about how Marx conceived of the relation of value to everything from supply and demand to average profits. Up until volume 3 the relation of value to price has just been assumed but here Marx actually spells out the specific relation, the mechanisms by which the fluctuations of supply and demand and competition assert the law of value.

Throughout we should remember Marx’s central premise. The apportioning of labor in a market economy happens through the exchange of the products of labor in the market. We discover the social character of our private labor when we bring products to market and compare them to other products. Thus our labor is indirectly regulated through exchange. If I produce commodities inefficiently and bring them to market I will be forced to sell them at their average market value, even if this means that I get less then average profit. This will force me to alter my production, to reapportion labor, bringing it in line with the average productivity in my given sector. Thus labor time is indirectly regulated through this market exchange, this constant comparing of labors in the abstract, in the market. This can only happen if there is a relation between price and labor time. The law of value explains this mechanism of indirectly regulating the distribution of labor through commodity exchange.

Some critics have complained that Marx’s theory of prices of production totally severed the link between price and value, that the price of a commodity which had been v+c+s (variable plus constant capital plus surplus value) had now become v+c+p (v+c+ profit)-that there was no longer a causal link between s and p. Marx begins chapter 10 by explaining what this link is.

Prices of production, as learned in chapter 9, are equal to k+ kp’ where k is the cost price (c+v) and p’ is the average rate or profit. This average rate of profit is a reflection of the relation of the total surplus value to the total cost price. This aggregate rate of profit reflects an average or mean organic composition of capital. Some individual firms actually approximate this same social average, this same organic composition. These firms of average organic composition have an individual rate of profit that is equal to the aggregate rate of profit. In other words the aggregate rate of profit is a reflection of
the profit rates of firms with an average organic composition of capital. All other firms, no matter what their organic composition, tend toward the profit rate of these firms of average organic composition. As we can see from the equation \( k + k' \) there is still a relation between surplus value and prices of production. Not only are the aggregate equalities (total price=total value, total profits=total surplus value, and total money rate of profit= total value rate of profit) valid, but the individual prices of production are a function of individual values as they relate to the average composition of capital.

The end result is that surplus value is redistributed amongst capitalists in the form of profit, giving each capital an equal return on investment, regardless of the organic composition. This is what Marx means by “equalization” in this opening paragraph. So how does this process of equalization happen?

Marx begins by reminding us that the process of assessing value happens in the market when the products of labor are compared with one another. We don’t know the value of our private labor until we compare our labor’s product with the products of all other labors in the market. This is a necessarily clumsy process of fluctuating averages, never a direct process of assigning fixed values. Value is created in production for exchange. It exists prior to exchange. But it is realized in exchange. Without exchange it would never come into its own as value.

Marx introduces his explanation of equalization of profit rates by talking about a different process of equalization, the later presupposed by the former. He says, as he did at the beginning of chapter 9, that the process of equalizing profit rates assumes that there is an equalization of the rate of surplus value. How is the equalization in the rate of surplus value achieved? Workers compete for the best jobs. Capitalists compete for the desired workers. Class struggle and competition within classes achieves a uniform rate of exploitation. Of course this doesn’t mean the rate of exploitation is exactly the same in every firm. This is a loose, fluctuating average, constantly changing as the state of class struggle changes. Though it is a law it is “viewed as a tendency like all other economic laws.”

Aside from reminding us that this equalization of the rate of surplus value is necessary for an equalization of profit rates, Marx is also giving us important information about how laws and tendencies work in a market. The indirect mechanism of the market requires fluctuations above and below the averages to which a law pertains. Socially necessary labor time is established through the comparison of private labors in the market, labors which may be higher or lower than the social average. It is through this comparison in the market that labor is disciplined, returning to production with the intent of achieving this social average. Similarly with surplus value, the competition in the market presses exploitation to a social average. But this average is achieved through all sorts of fluctuations. In both examples these fluctuations are not a defect. They are the mechanism through which the indirect market mechanism exercises a law. This is why Marx reminds us that this law is “‘viewed as a tendency like all other economic
laws.” There has been criticism of Marx for his use of the term “law”, or for his fluctuation between “law”, “tendency” and “law of a tendency”. I see no inconsistency if one realizes that all laws are tendencies in a market. It is ignorance in this matter that causes people to act like Marx’s laws or predictions are some sort of fixed, prophetic statements. Critics love to point to “exceptions”, to point to places where price deviates from value or where the movement of wages and profits is contrary to the direction Marx said they would move. But such primitive criticisms fail to understand the most basic starting points for Marx’s understanding the way economic laws work.

This said about laws, Marx continues on describing the way average profits are achieved. “The whole difficulty arises from the fact that commodities are not exchanged simply as commodities, but as products of capitals, which claim participation in the total amount of surplus-value, proportional to their magnitude….” This leads Marx into a thought experiment in which he compares two different types of commodity production. This section is often read as comparing simple-commodity production to capitalist commodity production. I am suspicious of this reading (for reasons I mention below) but it does help frame this part of the reading if we use those terms. For much of the next 10 pages or so Marx will be elaborating on this comparison. To avoid confusion (and I was confused at some points) one has to be aware when Marx is talking about ‘simple commodity production’ (or some abstract concept of production where prices equal values), or capitalist commodity production where prices of production prevail.

I’m pretty sure that elsewhere in this Kapital 3 blog I have talked about simple-commodity production, but let me just summarize a few points here again. I sometimes picture the concept of simple commodity production as a sort of “mutualist” economy like that envisioned by free-market anarchists like Ben Tucker or Kevin Carson. But Marx lists many different types of non-capitalist exchange like primitive societies trading between each other, medieval guilds, trade between slave and serf societies, and trade between “communist communities”. Individuals own their own means of production and meet in the market to exchange them. Here prices equal values, supposedly. It is a point of debate to what extent Marx treats simple commodity production as an historical phenomenon or merely a theoretical abstraction or whether he treats it at all. One side argues that the period in history in which private production really took the form of commodity production, of producing for the sake of exchange, only really emerges with the emergence of capitalist production, of private ownership of means of production coinciding with a dependent proletariat. David Harvey argues this, briefly, in his Limits to Capital. Isaac Rubin has a more sustained argument to this effect in his “Essays in Marx’s Theory of Value.” The other side argues that we can see simple commodity production in independent farmers or medieval guildsmen… that simple commodity production proceeds capitalist commodity production historically. There is paragraph in this chapter that asserts this and a footnote referring back to a passage in Volume 1 which makes the same point. I know that Engels further developed this point elsewhere (citation?) and I wonder if he inserted this part into this chapter. Hilferding argues this point in his response to Bohm-Bawerk and Mandel also
defends a version of this in his introduction to Volume 1 of Das Kapital. I tend to side with Rubin that simple-commodity production is a theoretical abstraction and not an historical argument.

The third side argues that “simple-commodity production” doesn’t even really exist as an economic concept in Marx, that it is imposed on Marx by later interpreters. (See Chris Arthur’s “The Myth of Simple Commodity Production”) When Marx talks about C-M-C it’s not that he is theorizing a state of society in which individuals necessarily own their own means of production and sell their products in the market. It’s that all economic interaction in the market take the form of market exchange, of products being alienated from their producers and existing as exchange values in the market. Even labor power is sold as a commodity. Marx begins with this commodity relation because this is the primary relation that all other relations presuppose. But it’s more complex than that! In order for this commodity relation to exist there must also be capital! It’s often pointed out that workers sell their labor power in the market because they own no means of production. But even more fundamental is the fact that workers seek their means of subsistence in the market and alienate their product for exchange value only in a society in which they are separated from the means of production. This means that the C-M-C/M-C-M relation is necessarily dialectic. We can’t have commodity exchange without capital. I’d love to hear recommendations from others of texts which address this relation more clearly. It certainly would serve as a starting point for making a distinction between both Marx and market socialists and Marx and mutualism.

In a hypothetical “simple commodity economy” workers own their own means of production, producing commodities for market. They don’t hire other workers and they don’t invest in other enterprises, thus there is no capital and no exploitation. In such an economy prices equal values. In addition to making back the cost of production and paying for their means of subsistence all workers receive a surplus value in proportion to the amount of time they work. If all workers worked an 8-hour day they would all receive the same surplus value but the prices of the commodities and the rates of profit would differ for different types of commodities. Why?

Every commodity requires a different ratio of raw materials, tools and labor (the technical composition) to be produced. Giving haircuts just requires scissors. Making a house requires all sorts of tools and building materials. The costs of these materials enter into the value of the product. So even if each worker in a simple commodity economy works the same amount of time their products will have different values. A day of haircuts will cost less than a day of house building. The price of a product must cover the cost of all these materials, the cost of the means of subsistence and a surplus value. If a worker is not able to make back the cost of their production or make this average surplus value they will be forced to alter their production or even switch to another type of production.
(Notice that surplus value still exists even without the existence of capital.) If we apply the same terminology that we use for capitalism and talk about profit and rates of profit we will notice that each worker in a simple commodity economy makes the same amount of profit but has different rates of profit because the cost of materials is different. But unlike a capitalist economy these differing rates of profit don’t matter. They are “immaterial”. What matters is that an equal amount of labor receives an equal amount of value. The additional costs of materials are entirely compensated for by the differing costs of the product.

In order for simple commodity production to exist, in order for prices to equal values, 3 conditions must be met. Those Austrian critics who erect their strawman versions of the LTV to knock down so arrogantly would do well to pay attention to these 3 simple points:

1) Exchange must cease to be accidental and become regular. If production is primarily happening for personal subsistence and not for exchange then the comparing of the products of labor in the market place will not be regular enough for these comparisons to have an enduring impact on production. The law of value requires regular exchange in order for production and exchange to act upon each other (dialectically). Here we might also mention those bourgeois theories of the LTV going back to Adam Smith that imagine primitive man operating under the law of value merely because he must weigh the utility of his product against the disutility of his labor (Smiths “toil and trouble”). Marx doesn’t deny that any labor entails a subjective valuation of the usefulness of the product in relation to the amount of labor expended. But he maintains that something entirely different and unique happens when we exchange those products in a market. We don’t place any utility on the products of our labor. We produce them merely for their exchange value. This changes everything. (Actually even in a less developed economy where exchange is of surplus products left over after producers have produced their means of subsistence it is still true that this surplus product has no direct utility for the worker. It exists merely to be exchanged.) The law of value does not pertain to all work in all societies. It pertains to commodity exchange. Incidentally, Kevin Carson, whose book “Mutualist Political Economy” I’ve been reading recently, makes this same mistake in his attempt to create a “subjective reformulation” of the LTV.

2) Commodities must be “produced on both sides in approximately sufficient quantities to meet mutual requirements, something learned from mutual experience in trading and therefore a natural outgrowth of continued trading.” This means that there production for exchange must be regular enough that the laws of supply and demand can operate freely. When supply and demand equal each other then prices equal values. But as Marx says later in this chapter supply and demand rarely meet. Their deviation is the mechanism through which the law of value works. Changes in one produce changes in the other. The division of labor is coordinated through the market. This is not the way Austrian subjective value theory views the situation. Subjective valuation only works if
we take the mass of products on the market as given. Passive consumers must encounter
and preexisting world of commodities.

3) No monopolies can exist which allow producers to sell products above their values.
This qualification also helps dispense with some of the Austrian strawmen. Obviously
Picasso paintings are not priced at their labor time. This is because Picasso paintings are
not freely reproducible goods. The high price of a Picasso can not attract other
producers to paint Picassos. Thus the law of value cannot exert itself. The law of value
explains the way in which commodity exchange apportions social labor. In cases of
monopoly there is a barrier to this apportioning of social labor. Monopolists get their
excess profits by excluding other people from a sphere of production.

(Keep in mind we are still talking about simple commodity production and not capitalist
commodity production.) Within a sphere of production, say house builders, it may be
that some work more efficiently than others. This could be due to individual differences
in ability or to differences in the conditions of production from one place to another.
Some carpenters may have access to better materials or tools, or be building in easier
locations. When these differing products meet in the market place, when these various
carpenter labors are compared, what determines the market value? Marx says it is the
average value that determines the market value. Carpenters working above the average
will receive a surplus- they sell at the market value but for less labor. Carpenters
working below the average productivity will receive less surplus- they sell at the market
value but for more work than the others. Thus, most of the time, the socially necessary
labor time is set by the average productivity, production under average conditions.
Notice that already with the concept of market value we see price diverging from the
specific labor-inputs of individuals and moving toward social average. This means that
some individuals receive more or less value in exchange than they produce. This is only
possible because money embodies abstract labor.

I believe we can take this term “market value” to be a stand-in for socially necessary
labor time though I thought it odd that Marx doesn’t say that here. On top of this term
“market value” we have “market prices”. Market prices are the actual money prices we
see on price tags. Any seller can put any price on a price tag they like. It is the
competition between sellers in the market that will determine if these prices can be
realized. It is this competition which will determine if these market prices correspond to
market value. It is this constant testing, competing and fluctuating that makes up the
process that determines market value.

But there may be times when this market value is set by the the price of production
under the worst conditions or under the best conditions. I believe that the point Max is
developing here is in response to prior theories of market value which argued that
production under the worst conditions is what sets market value, but I am not sure about
this point as I’m no expert on classical political economy. (Anyone who can weigh in
on this would be appreciated.) I do know that later when we look at Marx’s theory of
rent we will see Marx argue that agricultural prices are an exception to this general rule—that in agriculture market prices are set by the value of production under least favorable circumstances. Here Marx merely lays out theoretically what it would mean for market value to be set by production under the worst or best circumstances. Such a situation arises when demand does not respond to changes in price. Under most conditions a rise in price triggers a decrease in demand and a fall in price triggers an increase in demand. Thus, at a given price a product “occupies so much place in the market.” I like this image of “occupying so much place in the market”. “Place in the market” captures several things at once. At a given level of productivity of carpentry, so many houses are demanded, so much income is spent on houses, so much labor is devoted to building houses. If the level of productivity changes then this “place in the market” changes. But what if demand does not respond in this usual way to a change in price? What if demand stays the same when prices rise? Then market price will be equal to the value of goods produced under the least favorable conditions. If demand stays the same as market prices fall then prices will be set by those producing at the most favorable conditions. Marx does not give examples here of such special circumstances.

Marx now returns to prices of production and capitalist commodity production, briefly. These same laws of market value apply to prices of production. Prices of production are the center of gravity for fluctuations in market prices. (See Alan Freeman’s “An Invasive Metaphor: The Center of Gravity in Economics” for a critique of this concept. It’s probably wrong for me to say “center of gravity” since Marx doesn’t actually use that phrase, but I can’t think of a better phrase at the moment.) Under normal market conditions it is these prices of production of firms with average conditions which set the market value. But special circumstances may cause the best or worst conditions to regulate the market price of production.

No matter what sort of special circumstances may prevail, no matter if we are talking simple commodity production or capitalist commodity production, the law of value is what regulates prices. This tells us two things:

1. Changes in prices relate to changes in productivity. Even if prices deviate from values, changes in prices correspond to changes in the amount of labor time required for both the production of a specific commodity and for the formation of the general profit rate. Marx postulates that Ricardo understood this when he emphasized the relation of changes in labor productivity to changes in price. I am not by any means an expert in Ricardo but my understanding is that rather than pursue a direct, proportional labor-to-price relationship Ricardo preferred to emphasize how changes in labor led to changes in the price. (Anyone who can offer some clarity on this is welcome to write in.) One of Marx’s big contributions to value theory is to go beyond Ricardo and explain this relationship in more detail.

2. The average profit is equal to the average surplus value. In other words, total profits can’t rise above the total amount of surplus value. Marx then goes on to demonstrate
that any attempt to argue that total profits can be higher than total surplus value is just to increase the monetary expression of labor time. (Modern marxist economists call this the MELT. MELT is an important concept because the value of money in relation other commodities changes and thus the amount of value represented by, say, a dollar bill changes as the MELT changes.) If some capitalists raise their prices so that there appears to be higher profit rates, this necessitates all other capitalists raise their profit rates so that they can afford to buy from each other. Wages must then rise too so that the product of the consumer goods sector can be bought back. When all prices and wages rise it is the same as if no prices or wages rose.

Competition is the mechanism for the creation of both market value and prices of production. Within a sphere of production competition forces producers to sell at the market-price, an average price set by the firms operating at average productivity in average conditions. Between spheres of production competition forces producers to sell at their prices of production, cost price plus an average profit rate set by firms operating with average organic compositions.

“For commodities of the same sphere of production, the same kind, and approximately the same quality, to be sold at their values, the following two requirements are necessary:” So that you don’t get lost in the argument, Marx will take about 14 pages to explain these 2 requirements. Briefly they are: 1. Individual values must be equalized as one social value (p. 180-185); and 2. Supply and demand must balance (p.185-194) This second point breaks into two tangents, the first on supply (p. 186-188) and the next on demand (p.188-189) before then discussing supply and demand together (p.188-194).

(Again, all page numbers apply to the Progress Publishers, Moscow edition.) This entire time we are talking about production within one sphere so we don’t need the concept of prices of production. On page 194 Marx will return to talking about prices of production. This a long section with lots of interesting details so it’s important not to get lost in the structure of the argument. Now for a closer look.

First: Individual values must be equalized as one social value (p.180-185).

For there to be a market value, the private labor of diverse individuals must appear on the market to be compared with one another. Enough of each product must be produced to meet social demand. If there is a shortage in relation to demand then prices will rise above values. If there is an excess then prices fall below values. Through such fluctuations a balance is achieved which brings about a market price which equals the value of commodities produced at average conditions. In this sense supply and demand regulate market value. But we must also realize that supply and demand are also a response to market value. Demand changes in relation to the price of a product. Changes in demand will trigger a change in supply. The ratio of demand to supply must be determined by an underlying cost of the commodity, the cost of production, and all costs are ultimately labor costs.
We often hear people unfamiliar with the subtleties of the labor theory of value object that it is not value, but supply and demand that regulate prices. The response to this statement should be, “What regulates supply and demand?” Above I summarize how Marx shows how productivity is the ultimate determinate of the ratio of demand to supply. Beyond this there is there is this nebulous element of “social demand”. How much is demanded by society depends not just on the individual tastes of consumers but also on how much money consumers have to spend. The demand for wage-goods depends on the amount of wages paid to workers. The demand for luxury goods, capital equipment, raw materials, etc. comes from the amount of surplus value appropriated by the capitalist class. Thus class struggle over the rate of exploitation, and the distribution of surplus value between the different parts of the capitalist class is the foundational concept needed for an analysis of social demand. Yet bourgeois economy would have us think that demand is purely a matter of consumer preference. The reality is that if I have no money is doesn’t matter what kind of toothpaste I prefer: I can’t buy any.

This idea that supply and demand regulate price but that price regulates supply and demand has a nice dialectical ring to it. Little surprise then that Marx reminds us here of one of the first dialectical pairings he presented us with in Volume 1: exchange-value and use-value. All commodities have an exchange value and use-value. In the transaction of money and commodities these two types of value get polarized, commodities embodying use-values, and money exchange-value. In order for a commodity to have an exchange-value (price) it must be compared against all other commodities on the market as they compete to fulfill social needs. In other words, it must have a social use. The production of this social use must not exceed the average bounds of productivity in a given sphere of production. Thus socially necessary labor time is established.

One of the hip things about Marx is that it is easy to zoom in and out from micro to the macro viewpoints using the same concepts. In the same way we said all of the above about individual commodities the same can be said of a mass of commodities in one sphere. If we take all the cars sold this year we can say that the aggregate prices of these cars equals the aggregate social value of these cars, and that this mass of cars contains the socially necessary labor time needed for its production.

Within this mass of cars some are produced at less the optimal conditions while others are produced at more than optimal conditions. On the whole, these exceptions balance each other out. Competition forces less-optimal firms to work toward the social average so that most firms produce at an average level. While some firms still lag behind an equal amount rush ahead of the average, balancing out the laggards. Thus it is the average productivity, the mean value, which determines the value of commodities in a sphere. But what if there is an excess of these lagging firms with not enough firms producing above the average to balance them out? Then prices will be determined by these laggards, these firms producing at least-optimal conditions. The opposite happens
with an excess of firms producing above the social average. In an overstocked market prices are always determined by those producing at optimal conditions.

If market-values are set by production at average conditions then the total individual values are equal to total price. But in the cases where prices is effected by the least or most optimal conditions then the total of individual prices exceeds or falls lower than the total of individual values.

[Marx reminds us here that he is talking about market values and not market prices. I may have conflated the two above in my blogging at times though I’ve tried to be careful of that. What’s the difference? Market price fluctuates around market value. As supply and demand fluctuate prices fluctuate around this market value.]

Second: Supply and demand must balance (p.185-194)

“Second, to say that a commodity has a use-value is merely to say that it satisfies some social want. So long as we dealt with individual commodities only, we could assume that there was a need for a particular commodity — its quantity already implied by its price without inquiring further into the quantity required to satisfy this want. This quantity is, however, of essential importance, as soon as the product of an entire branch of production is placed on one side, and the social need for it on the other. It then becomes necessary to consider the extent, i.e., the amount of this social want.”

A fascinating paragraph, especially in light of the strong emphasis placed on demand in much of the criticism of Marx by Austrians/marginalists. Up until now we have assumed that commodities satisfy a social want, that they are demanded. This is because value is a social concept. In market exchange private labor becomes social. Of course if there is no demand for a commodity it will have no value. This dispenses with the common straw-man attack on the LTV which claims that Marx is saying that any product of labor, no matter how ridiculous, has value. Even more interesting, much of the logic of value in marginalism has to do with opportunity cost- that as a society decides how to allocate “scarce” resources it must choose between different commodities and that the cost of forgoing other options is what is measured in prices.

Here Marx begins to talk about the way social need is formed through the comparison of all the different commodities on the market in all the different spheres of production. This entails an analysis of supply and demand.

Before treating supply and demand separately Marx reminds us that above we have already talked about the way different production conditions effect the formation of market values. If supply meets demand then market values will correspond to the values of commodities produced at average conditions. But if demand is higher than supply then market values are formed by the firms operating at the least favorable conditions. If supply outpaces demand then market value is formed by firms operating at the most
favorable conditions. Supply and demand can get out-of-synch through changes in either supply or demand or both. Now Marx looks at supply and demand separately.

“The real difficulty in formulating the general definition of supply and demand is that it seems to take on the appearance of a tautology.”

Supply

In a given production period a certain mass of commodities is produced on the market. This is the supply. These use-values, these physical products also have values, prices. There is no necessary correlation between the amount of commodities and their value. There could be lots some commodities with little value and few of another with high value. A million pencils is very different than a million cars. Supply is more than just an amount of commodities. It is an amount of value. This is because supply isn’t just a mass of use-values. It is also an apportioning of social labor to create these use-values. If society demands more pencils and less cars then there must be a change in the apportioning of social labor away from cars and toward pencils. There is no direct connection between the labor time involved in producing a commodity and the amount of social demand for this commodity (though we have seen, already, that changes in price effect the level of demand). If society squanders too much social labor in the production of a commodity in excess of the demand for this commodity then it has wasted some of the social labor time. The market value of the commodity falls lower than its actual value, signaling a change in the apportioning of social labor. If labor is reapportioned so that the amount produced satisfies the social need then market values will correspond to the value of those commodities produced at average conditions. This is what it means for supply and demand to balance. This is the equilibrium price, or natural price of a commodity. “It is this law that explains the deviations, and not vice versa, the deviations that explain the law.”

Demand

This all seems simple so far until we realize how tricky this idea of demand is. First of all, demand comes from both consumers buying wage-goods and capitalists buying means of production. These two groups have different motivations in forming demand. The working class demands its subsistence. The capitalist class enters the market looking for profit. Both groups change their level of demand according to the prices they encounter in the market and the amount of money they have available to buy commodities. The prices change with productivity. The amount of effective demand is formed by the rate of accumulation and the surplus value.

Supply and Demand

So what exactly do supply and demand mean? If supply and demand balance out then prices equal market value. If prices equal market value then supply and demand balance. Hence the aforementioned tautology of supply and demand. “If supply equals demand, they cease to act, and for this very reason commodities are sold at their market-values. Whenever two forces operate equally in opposite directions, they balance one
another, exert no outside influence, and any phenomena taking place in these circumstances must be explained by causes other than the effect of these two forces. If supply and demand balance one another, they cease to explain anything, do not affect market-values, and therefore leave us so much more in the dark about the reasons why the market-value is expressed in just this sum of money and no other. It is evident that the real inner laws of capitalist production cannot be explained by the interaction of supply and demand....”

Of course supply and demand never balance completely. If they do it is by accident. So what is the purpose of talking about them as if they do? Marx gives two reasons. 1. In order to get at a fundamental relation, we have to hold other variables constant. For instance, if we are to study gravity in its pure form we hold forces like friction constant. (If a more scientifically-minded person has a better example please suggest one.) 2. The deviations caused by fluctuations in supply and demand are deviations around a mean. A deviation in one direction is compensated for by an opposite deviation in the other direction. We could say that viewed over a longer period of time, supply and demand do balance out, that the longer the period of time, the more all those pesky interferences in the market like monopoly, imperfect information, trends, etc. appear little more than blips on the screen. But of course, values are moving over time so this idea becomes one of a moving mean. What the long-view gives us is a view of market values as the dominant force amidst the daily fluctuations of the market.

Supply and demand explain the deviations of prices from market values, but they also explain the tendency to eliminate these deviations! This is what it means to say that supply and demand is the mechanism by which value is asserted. If supply outpaces demand and prices fall below values this triggers changes in production which bring price back in line with value. Hence the law of value asserts itself.

“...demand determines supply, just as supply determines demand, and production determines the market, as well as the market determines production.”

To help us out of this circularity Marx introduces the concept of “effective social want”. That is, at a given price there is a given level of social demand. If the actual value changes then effective demand will change and thus supply will change. A new balance point between supply and demand will be established. Over time, as productivity changes, there may be many different balance points established between supply and demand. These points may represent very different quantities of product, amounts of aggregate value and amounts of labor time. Within the fluctuations caused by this balancing of demand and supply remain the market values which correspond to the socially necessary labor time.

Finally, demand and supply are aggregate, social forces. One person’s demand only has any force in that it is part of the aggregate demand. While we think of competition as being all about individuals, competition really brings about the dependence of
individuals on one another. In situations in which individuals exercise the most independence they also reveal the most inter-dependence. Take examples where demand is higher than supply. Here the individual seller seeks to maximize his gain by raising prices as high as he can. This has the effect of raising prices for all sellers. When supply outpaces demand sellers compete by lowering prices and the collective effect is to lower the market price. “The common interest is appreciated by each only so long as he gains more by it than without it. And unity of action ceases the moment one or the other side becomes the weaker, when each tries to extricate himself on his own as advantageously as he possibly can.”

Prices of production (p.194-)

For the past 15 pages or so we have been talking about the formation of market values within a sphere of production. This involves the way supply and demand cause prices to coalesce around values. But this all started because Marx wanted to explain the formation of prices of production which involve the deviation of prices from values. We looked at simple commodity production and we looked at production within in one sphere to see how the process of supply and demand work in apportioning labor to meet effective demand and understand the way deviations in price form the mechanism by which the law of value is asserted. But now we must return to the question at hand: prices of production.

Fortunately much of the analysis has already been done for us through this exploration of supply and demand, market value and competition. Different spheres of production have different organic compositions and thus different individual rates of profit. Capital flows into spheres with above average rates of profit which increases the supply of those commodities. This eventually lowers prices below their values which brings that profit rate back down to the average profit rate. The opposite happens with firms with higher organic compositions and therefore lower individual profit rates. Thus, instead of realizing the money price of the value that firms throw into circulation, the issue becomes one of realizing an average rate of profit for the amount of total capital invested in production. This transfer of surplus value in circulation is only possible because money acts as the embodiment of abstract labor.

In order for this to happen capital needs to be easily invested in and out of different spheres. This requires mobility of capital and labor, a credit system, and the subordination of each sphere to capitalist production. If some spheres resist the penetration of capitalist relations, like small scale farming for instance, these spheres do not enter into the formation of an average profit rate. In order for labor to be mobile there must be a greater concentration of the working population, work must require less skill and workers must be desensitized to changes in work. The reduction of skilled labor to simple labor is crucial. Many contemporary Marxists critique the idea that profit rates actually ever equalize. The point out that this is merely a formal theoretical problem and not one that relates to the real world of capital where profit rates are wildly unequal. I don’t know too much about this idea. It’s one of the ideas behind Farjoun and
Machover’s book “Laws of Chaos” which I’ve only just begun to peek into. I’ve also heard TSSI people criticize this idea of equalized profit rates. I’m not sure whether these thinkers think that a failure to equalize profit rates means that commodity prices are closer to values or not.

Average profit depends on the total mass of surplus value created. Thus each capitalist takes part in the collective exploitation of the working class. Exploitation is truly a class phenomenon. Though Marx doesn’t drive the point home here, this class aspect of exploitation is obscured through the prices of production. Profit appears to accrue to individual capitalists as a result of their own investing prowess. It is not clear that the benevolent CEO of Patagonia is just as implicated as the CEO of Shell Oil in the collective exploitation of the working class. We see why it was necessary for Marx to treat the labor-capital relation first before he entered into this analysis of the way the surplus value is distributed amongst capitalists.

Of course the drive to exploit comes from the advantage an individual capitalist will get if he/she produces more efficiently than the social average. They can make above average profit rates if they can raise their rate of surplus value above the social average. In fact this urgent race to improve efficiency leads to the rising organic composition of capital. Likewise a particular sphere of production has in its interest the same goals vis-a-vis the rest of the economy. If that sphere can produce more efficiently than the social average then they can reap surplus profits relative to other spheres. To the extent that all spheres contribute to this assault upon the wage-laborer, they all work together as a class to exploit the wage laborer.

Chapter 11 - Effects of General Wage Fluctuations on Prices of Production

After all the excitement of Chapter 10, this is a bit of a downer.

How do changes in wages effect the price of production? First we must realize that different firms will be effected differently depending on whether of not they produce at, below or above the average organic composition. Prices of production equal values for these firms of average composition. The individual rate of profit equals the average rate of profit for them as well.

The second thing to remember is that changes in the rate of surplus value do not necessarily change prices. Because value equals c+v+s, a rise in v can be compensated for by a decrease in s. Assuming a fixed amount of value is created each day (a fixed labor force and a fixed level of productivity) changes in v will be compensated for by an opposing direction in s. This means that the commodity’s value will stay the same even if wages rise or fall. But the change in wages does effect the amount surplus value created and therefore the amount of profit the capitalist accrues.
What does this mean for prices of production? For firms of average organic composition their rates of profit are effected by changes in wages but their prices of production remain the same. For firms producing below the average organic composition the price of production rises and profits fall. For firms producing above the average organic composition prices fall and profits fall but not in the same proportion.

What happens when wages fall? Just the opposite… “a general reduction of wages is attended by a general rise of surplus-value, of the rate of surplus-value and, other circumstances remaining the same, of the rate of profit, even if expressed in a different proportion; a fall in the prices of production for commodities produced by capitals of lower composition, and a rise in the prices of production for commodities produced by capitals of higher composition.”

Chapter 12. Supplementary Remarks

I. Causes Implying a Change in the Price of Production

A commodity’s price of production can change if the average rate of profit changes or if its individual value changes. Marx considers each separately.

The average rate of profit can change from a change in surplus value or from a change in the ratio of total surplus value to total cost price (total capital advanced). A change in the rate of surplus value can only come from a change in the value of labor power due to a change in productivity of the labor producing means of subsistence. Interestingly, Marx mentions that the rate of surplus value can also change due to the rising or lowering of wages above or below their values. But these are only fluctuations around the value of labor power. Like any other commodity, it is this mean value that counts in the long run, the fluctuations around it being the mechanism by which this mean is accomplished.

Changes in the ratio of surplus value to total capital outlay, since we already examined changes in the rate of surplus value, come from changes in the amount of capital invested. If more means of production are being consumed by the same amount of laborers than productivity has increased even though the total amount of new value created has remained the same.

Either way, such changes on the price of production of an individual commodity come from changes in other commodities. The social nature of value creation becomes evident.

A change in the price of production of a commodity can also, of course, come from changes in that commodity’s individual value- that is, more or less labor can be
incorporated into its production or the production of the constant capital that enters into its production. We have already considered these changes in part 1.

Either way, changes in prices of production are always the result of changes in value. Value remains the ultimate regulating force.

II. Price of Production of Commodities of Average Composition

Much of the consistency of Marx’s value theory, when applied to this world of average profits, comes from the fact that commodities of average organic composition have prices of production equal to their values \((k+p=k+s)\) and profits equal to the amount of surplus value they create \((p=s)\). But what if the cost-price of these capitals of average compositions also contain commodities that trade at their prices of production instead of their values? What if my hot-dog factory, which is a firm of average composition, buys pork products at prices of production which are below their actual values? How does this change my average composition? My variable capital might have a price of production different from its value as well. What if the breakfast cereal my workers eat has a price of production above or below its value? How does this change my average composition, the amount surplus I create, the price of each hot-dog, or my rate of profit?

We recognize immediately that these questions come from the same place that Bortkiewicz’s transformation problem came from: the fact that inputs into the production process are bought at prices of production and not values. Before our heads start to spin imagining these endless feedback loops, we should take stock of what exactly the problem is. For one, when Marx says, “It is therefore possible that even the cost-price of commodities produced by capitals of average composition may differ from the sum of the values of the elements which make up this component of their price of production,” it is obvious that he understood that prices of production enter as cost prices into the production process. The claim that Marx “forgot to transform input-prices” seems a rather pathetic explanation.

Marx answers this question by stating that such a transformation of input prices, “does not detract in the least from the correctness of the theorems demonstrated which hold for commodities of average composition.” Regardless of the actual prices that capitalists pay for their inputs, the amount of profit received by capitals of average composition is equal to the amount of surplus value they create. Average composition is measured at the price of production and not actual values. The prices of production of the inputs are what forms the cost-price and what determines the average composition. It is the ratio of \(c\) to \(v\) which determines whether a firm is of average composition, not the actual numbers. If a firm is of average composition then its surplus value is equal to the average profit.

What if the price of production of labor power falls below or above its value? Doesn’t this effect the amount of surplus value/profit? A change in wages means a
redistribution of value between workers and capitalists but does not change the amount of value produced, or the actual price of a commodity. If wages rise this means less surplus value is produced, the rate of exploitation changes. If the firm still remains of average composition then this new rate of exploitation defines a new rate of profit. If the rise in wages makes the firm no longer of average composition then it then it no longer determines the average profit rate.

III. The Capitalist’s Grounds for Compensating

In competition the world of appearance seems to conflict with the underlying law of value. Capital receives average profit regardless of the ratio of dead to living labor. Changes in wages effect prices, even though changes in wages should only redistribute value between s and v, not change s+v. Market prices diverge from values. “The final pattern of economic relations as seen on the surface, in their real existence and consequently in the conceptions by which the bearers and agents of these relations seek to understand them, is very much different from, and indeed quite the reverse of, their inner but concealed essential pattern and the conception corresponding to it.”

We have assumed that the process of equalization of profit rates comes from the attraction and repulsion of capital in and out of different spheres of different composition, which over time levels profit rates. After awhile though, these changes in prices which equalize profits become part of the consciousness of the capitalist and cease to require the same amount of attraction and repulsion. This is reflected in the way that all capitalists compensate for all sorts of risk, non-productive expenses, etc. by raising their prices. For instance, if a firm is exposed to risk through longer turn-over-times it will compensate for the loses it incurs by raising prices. These loses do not constitute any real value that the firm is contributing to the social product. It is merely the way in which the capital makes its claim on the total “loot”, the aggregate surplus value. The capitalist thinks he/she has a “right” to equal profits. They believe they contribute to the social product through their investments in capital and thus deserve equal compensation, whether or not these investments actually create an average amount of surplus value.

This is an interesting ending to this 2nd part. Obviously these last remarks remind us of the various theories of “interest” advanced before and after Marx’s time: that profit comes from risk, or roundaboutness, or abstinence. Perhaps then, the response to, say, Bohm-Bawerk’s theories of time-preference and roundaboutness might start here in a discussion of the way capitalists expect equal profits on all investments and thus include the cost of less productive (in value terms) ventures in their prices of production in order to capture this average “loot”.

84
Part 3: The Tendency of the Rate of Profit to Fall

Opening Thoughts

Before launching into a summary of Marx’s text I’d like to briefly list some of the things I am specifically looking for in his explanation of the Falling Rate of Profit (FRP).

There is so much debate between Marxists over how to properly understand capitalist crisis. Some claim that Marx does not give us a completed theory of crisis at all and that our job is to fill in the gaps. Others claim that Marx provides the essential structure of the argument, a structure which only requires some fleshing out. Then there are those that think Marx’s argument is flawed and requires replacing. This latter group contains those who believe they can construct a theory of crisis still within the framework of Marx’s logic and those who have turned to other theoretical frameworks.

Depending on where you fall within this debate you will describe and classify the varying theories differently. For a Falling Rate of Profit theorist (or “Tendency of the Rate of Profit to Fall”, as many will urgently remind you) any appeal to underconsumption lies outside of the Marx’s framework. Some classify underconsumption as a branch of disproportionality theories. Some classify the FRP as a branch of profit-squeeze theory. Others see profit-squeeze as a separate theory relating to wages. David Harvey tries to paint a more general theory of crisis by using the term “overaccumulation”. But some associate this term with underconsumption! What a confusing mess. But isn’t this the way any debate goes? One side will classify the other differently then they would classify themselves.

So when reading through part 3 one of my goals is to try to make sense of Marx’s own argument as best as can be done. We know that there are many different types of economic relations that make up a capitalist society. The relations between producers in the market form the basic value relation. The relations of production form the wage-capital relation. The relations between different parts of the capitalist class form the money-capital relation and the landlord relation. Then there’s the state… With the exception of the state all of these relations are expressed through the primary relation of value. Money capitalists buy and sell money. Capitalists buy wage labor and raw materials and sell commodities. Workers sell their labor power and buy commodities. This means that problems that arise in a specific relation may find their expression not in that relation itself but in the market place. A capitalist may find that she is unable to realize a profit from selling her commodities in the market. Where does this problem come from? We can’t tell just by looking at the market. We must look to the sphere of value production.
The current crisis expressed itself at first in the housing market and then in the credit markets in general. But credit expansion is only a problem if not enough value can be created to pay back credit. This takes us back to the labor-capital relation. In all these examples we see that the expression of the crisis is not the same as the cause of the crisis. The market is the mechanism by which the law of value asserts itself on producers. All relations find their expression there. This creates confusion. We see crisis breaking out in the credit market and so we think that is where the crisis came from. But this was only a distant expression of the crisis. Credit bubbles happen because capital can’t find profitable investments in the creation of real value and thus sends capital flowing into fictitious investments which create artificially high, but risky, orgies of high-stakes gambling. There are some modern Marxists who identify this current crisis as a crisis of the credit system. But for the most part we cannot take this seriously as a real Marxist analysis of crisis. Marx will treat money-capital in later parts of this book and so I will be interested to see how his analysis of money-capital helps explain the way crisis manifests itself, the form of appearance it takes, through money and credit.

Obviously underconsumptionist theory sees underconsumption as being expressed through the market. But the tendency of the falling rate of profit (FRP) also must be expressed through the market. Capitalist don’t just look down at their assembly line and realize their new batch of commodities don’t contain enough value relative to expenses to make a profit. They encounter this inability to make a reasonable profit in the market. The subjective experience, the mode of appearance, of the FRP and underconsumption seem quite similar. I am curious as to how Marx presents this world of appearance in relation to the inner dynamics of capitalist accumulation. I want to know how specific he is about the relation between the production and circulation of value.

In addition to wondering about the theoretical relation of these different manifestations of crisis I am also reading for critiques and defenses of Marx’s argument that I have read about elsewhere. Marx’s explanation of the FRP relies on his claim that the organic composition of capital rises faster than the amount of new surplus value created. Critiques therefore aim at either the rising organic composition or the rate of surplus value. One often reads that Marx’s claim of a rising organic composition (the ratio of dead to living labor) is cast in ambiguous terms. Is he referring to a rise in the physical quantities of constant capital (machines, factories, raw materials, etc.) or to their values? We know that the rising productivity of labor is constantly causing the values of these commodities to fall. It is argued that just because their physical presence in the workplace increases this doesn’t mean that the value of constant capital is rising.

I am curious to see just how ambiguous Marx’s presentation is. The two responses to this criticism that immediately come to mind involve the rising mass of surplus value and depreciation. M-C-M1 means that at the end of each production period there is more profit and that this increased mass of profit must be converted into larger investments. There are a finite amount of laborers in the world. Eventually this mass of
profit must incorporate larger proportions of non-people, of products of past labor. I am curious to what extent Marx makes this or similar arguments.

Depreciation occurs when a firm has spent huge amounts of money on long-term investments in fixed capital like a railroad or a factory. The cost of these investments will be realized over a long period of time. Yet the constantly rising level of productivity (which is always cheapening these means of production) allows newcomers in the market to buy this same fixed capital more cheaply and produce at a lower cost, selling at lower prices. This devalues the older fixed capital, forcing older firms to take a loss. So if critics of the FRP claim that rising productivity cheapens constant capital enough to offset the FRP they ignore the real, observable ways in which this cheapening causes devaluation which does cause profit to fall. Nowadays many defenders of the FRP point to Detroit as a classical example of this phenomenon: Large scale investments in fixed capital forced Ford and GM into long-term productive strategies that couldn’t compete with Japanese and German firms that came online later with newer, cheaper fixed capital investments. The TSSI guys (Temporal Single System Interpretation) have a word for those who ignore depreciation. They call them “physicalists”, which is a word the reserve for anyone who confuses physical quantities with a fixed sum of value. They say that to think the cheaper price of fixed capital to Nissan somehow lowers the initial expenditures of Ford on fixed capital is to believe in some theory of time travel. I am curious to see how Marx treats depreciation and whether he makes any specific statements about the temporal treatment of depreciation.

The other criticism/debate over the FRP centers around “Okishio’s Theorum”. I’m actually less interested in reading this chapter for this issue as I think that the TSSI has significantly disproved the validity of Okishio’s critique. The issue is also pretty technical so I would like to hold off on diving into it right now. Perhaps it can be a topic of a future post.

Chapter 13. The Law As Such

Though the other chapters in Part 3 present some room for debate this chapter is pretty straight-forward. At times the awkwardness of a first draft shows itself, like in this gem of a passage: “because even a larger unpaid portion of the smaller total amount of newly added labour is smaller than a smaller aliquot unpaid portion of the former larger amount”. But despite occasional awkward turns of phrase we get a pretty well fleshed out presentation of ideas.

Marx begins by point out what by now must be obvious: Given the equation for the rate of profit (total surplus value over total investment in capital, variable and constant) any increase in constant capital expenses not compensated for by an increase in the mass of surplus value will cause a falling rate of profit. That is, if we hold the rate of surplus value constant then any increase in c means a decrease in profit.
Many critics of the falling rate of profit (FRP here, though most people use TRFP—tendency of the rate of profit to fall) theory focus on Marx’s ambivalence between an increase in the technical or physical amount of constant capital and an increase in the actual value of constant capital. It is clear, just from the 2nd paragraph of this chapter, that Marx is well aware of this difference. He says that the technical composition grows faster than the organic or value composition. The increasing amounts of raw materials, partially finished commodities, machines and other fixed capital that the capitalist buys are bought for cheaper and cheaper prices as rising productivity lowers their prices. Yet Marx seems to think that this decreasing cost of constant capital is not strong enough to stem the greater influence of the growing mass of constant capital on the total cost of constant capital. Some 20th century Marxists preferred to see the rising organic composition and the falling cost of constant capital as two equally strong forces acting against each other, the balance to be decided by historically specific factors. It is clear from this 2nd paragraph, and elsewhere in Part 3, that Marx did not see the two forces in this way. He saw the falling costs of constant capital as a lesser countering force operating within the context of a larger, overarching movement of rising organic composition.

Guglielmo Carchedi has an interesting approach to this issue of tendencies and counter-tendencies in his book “Frontiers in Political Economy”. First of all, to say that something is a tendency, to say that it is tendential, means that there are forces moving society in this direction. But this is different from saying that something is determinate, that it will necessarily happen a certain way. If a phenomenon is tendential then we don’t know to what extent this tendency will be manifested or to what extent it will be held back by some counter-tendency. Tendencies are primary because they are the state to which the countertendencies tend. Countertendencies are secondary because they are the deviations around this tendency. After distinguishing between present and future tendencies Carchedi goes on to explain 3 types of present tendencies: In the first type the tendency dominates and the counter-tendency creates fluctuations around the tendency such as in the concept of equilibrium price in neoclassical economics. In the 2nd type the tendency and counter-tendency create a temporal, cyclical movement, such as in the tendency toward a falling rate of profit. In the third case the counter-tendency dominates so that the tendency is never realized. This is the case with the Average Rate of Profit- a phenomenon never reached because of the constant fluctuations in capital investment and technology.

In order for this rising organic composition to cause a fall in the rate of profit it mustn’t be confined to just one sphere of production, but must be spread out over much of the economy. Though Marx doesn’t expand upon this point much here it has been raised by critics of the FRP. Some have pointed out that as capital has spread over the globe it has always encountered cheap labor that can be highly exploited without the need for mechanization. We have seen such a huge growth in labor-intensive industries overseas in our lifetime. We have also seen a huge growth in the service sector. But here I am
getting away from Marx’s chain of argument in this chapter. I will have to return to these issues at another time.

The basic trajectory of this rising organic composition and falling rate of profit lies in the development of the social productivity of labor. We would hope that making the labor process more productive would be a good thing, but in the context of capitalist production this rising productivity is not developed in order to further socially useful ends. Labor productivity is developed solely in order to appropriate the surplus value of that labor in larger and larger quantities. This tells us that the FRP isn’t just a theory about some accidental minor flaw in the way capitalism reproduces itself. It is a theory about a fundamental contradiction within capitalism, one that gets to the core of the antagonistic social relations at the heart of capitalism: the contradiction between use-value and exchange value.

Why had political economists before Marx been unable to unlock this mystery? Prior to Marx the phenomenon of crisis and falling profit rates were the subject of all sorts of theorizing. Ricardo tied falling profits to the falling productivity of land. His theory is typical of bourgeois theories of crisis which paint crisis as a result of external forces. Marx’s theory is unique in that it argues that crisis is internal to capitalism. It thus reveals the historical limits to capital— that capitalism can develop the productivity of labor only up to a certain point before it goes into crisis. After that point the social relations of the system (appropriation of the surplus labor of this production by the capitalist class) cannot be sustained without a massive destruction of capital value. Classical political economy’s failure to understand this comes from two issues. Firstly it failed to distinguish between variable and constant capital. Marx’s big innovation in this regard was to understand the difference between the exchange value and use value of labor power, and thus to realize that the interrelations between variable capital, constant capital and surplus value. The other error of the classical economists was that they did not treat profit in its pure form, surplus value, apart from its division between the different parts of the capitalist class as rent, interest, etc. This led to confusion between the rate of surplus value and the rate of profit. It is Marx’s distinction between these two rates which allows him to build his theory of the falling rate of profit. These are important points about Marx’s method and it is crucial that we develop our understanding Kapital with them in mind.

Marx takes the time to elaborate on this second innovation of his: the treatment of surplus value separately from its division into different parts. He says that to treat interest before treating profit is backwards and to back up his argument he compares the difference between interest rates and profit rates of different countries at different stages of capitalist development to show that we can’t understand the interest rates prior to the profit rates.

The other countervailing influence that is often argued can arrest the FRP is a rising rate of exploitation. Marx will discuss this in chapter 14 but here he briefly argues that the
rate of exploitation can rise and profits can fall at the same time. This should be obvious from the equation: the matter is the degree to which \( c \) increases in relation to \( s \). Marx is arguing that the total amount of labor, regardless of its division between surplus and variable labor, is declining in relation to the total expenditure on capital.

As with everything in Marx, it is the relative proportions not the absolute magnitude that matter. The absolute magnitude of surplus value is always growing. This is what M-C-M1 tells us. Money is invested in production and it creates more money. This “more money” must be reinvested in larger proportions. Thus capital accumulates. Thus the total mass of surplus value is always growing. In the course of this accumulation capital is concentrated in larger and larger fixed capital expenditures. Capital is concentrated and centralized. There is a finite amount of labor to be employed, but there is an infinite amount of constant capital that can be added to this capital expenditure over time. The only limit is the falling rate of profit. It’s not that less labor is being employed. The absolute mass of laborers employed increases as capital brings more and more of the mass of humanity under its power. But in relative terms, in relation to the total capital expended on production, the amount of labor employed decreases. Marx is so emphatic on this idea of a rising mass of surplus value and a falling rate of profit that he repeats it over and over in different versions throughout part 3. Such is the nature of a rough draft.

If the total mass of surplus value is always growing where does all this new surplus come from? Capital brings more and more workers into the labor force. It does this through geographical expansion and population increase. Marx makes a brief venture into a theory of population at the bottom of page 218 (Soviet edition) to argue that the demand for labor can raise wages, making marriages more stable and thus increasing the population gradually. At the same time the repelling of labor from capital (see the discussion of these cycles of employment and relative unemployment in Vol. 1) can be an incentive for rapid population increase as families have more children in order to increase their family income. Obviously this is not a full-fledged theory of population and I don’t think it is intended to be. But it does point to some real observable realities about the relation between population, capital and unemployment. This growth of population is a source of absolute surplus value.

The other source of more surplus value is from relative surplus value. Increases in social productivity decrease the prices of wage goods thus cheapening labor power relative to surplus value. The concentration of capital by itself raises the productivity of labor (see part 1 chapter 5).

This law of a falling rate of profit is a “double edged law” because while the rate of profit is falling the total mass of profits rises. Thus there is an incentive to raise the organic composition of capital in search of this additional surplus value even though less and less profit is squeezed out per capital. In other words the percentage of surplus gained from, say, $100 in invested capital is less and less. Viewed from the perspective
of this percentage per $100 of investment it doesn’t make sense why capitalists would raise the organic composition. But if we look at the amount of profit on the total capital invested we see greater and greater masses of profit arising from greater and greater investments in capital. If the profit rate is falling capital requires greater and greater masses of capital investments in order to attain the same or greater mass of profit. The compulsion to accumulate inherent in M-C-M1 acquires an even greater sense of necessity and scale when we realize that investments must increase in size in order to compensate for a falling rate of profit.

This dynamic can be easily seen in the advantages which the large capitalist has over the small capitalist. Smaller firms may have much lower organic compositions and thus much higher individual rates of profit. But why then do firms tend to grow, centralize and crowd out the smaller firms? Firstly, the rate of profit is socially equalized through competition (to the degree that the profit rate tends toward equalization, a tendency never actually reached). Secondly the larger firm realizes a greater mass of profit. This is all the incentive needed for a growth in the size of the firm.

Pages 223-225 contain comments about the understanding of the falling rate of profit in political economy before Marx’s time. Many of the references are indirect and subtle. Never does Marx completely explain the theories he is critiquing, merely saying that these will be the topic of Volume 4: Theories of Surplus Value. Not being an expert in political economy before Marx and not having read Theories of Surplus Value, I can’t fully grasp the entirety of Marx’s argument here. But he seems to be arguing against the simple notion that a fall in the rate of profit is merely a result of the increase in capital investment, ie of the size of the firm. The mass of surplus value and thus the size of the firm is growing. This is obvious. At the same time the rate of profit is falling. This was also an empirical observation in Marx’s time. Merely noticing the coexistence of these phenomenon is not a theory. Marx is claiming that he has actually explained why the seemingly contradictory phenomena appear together.

In a 2003 paper called “The Dialectic of Capitalist Crisis” (http://akliman.squarespace.com/crisis-intervention/) Andrew Kliman specifically references these pages of chapter 13:

“I want to begin with what Marx’s law of the tendential fall in the rate of profit is not. It is not a law of capitalism’s collapse. Nor is it a theory of long-run stagnation, in which the system runs grinds to a halt as the profit rate falls ever closer to zero over time. Marx explicitly denied these ideas, writing that when Adam Smith said that the profit rate tends to fall as more capital is accumulated, he was referring to a permanent effect — but he was wrong. “Permanent crises do not exist.” Marx also argued that the tendency of the profit rate to fall is constantly overcome by way of economic crises.”

Incidentally the idea that the falling rate of profit is a phenomenon to be explained is crucial. It isn’t that the proof of the FRP is to show that profits are falling. It’s
explaining why the profits are falling that Marx was after. Interesting then that much of the modern debate about the Falling Rate of Profit is to whether or not profit rates have fallen at all. Some argue that the capitalist class undertook strategies in the 70’s which restored profit rates and that this crisis has other features not related to a secular decline in profit rates (see Moseley http://www.isreview.org/issues/64/feat-moseley.shtml: Then see Moseley’s retraction of this argument: http://sites.google.com/site/radicalperspectivesonthecrisis/audio-video/audiohistoricalmaterialism2010nyc-originsofthecrisis-moselevklimanmohon). Others such as Kliman (http://akliman.squarespace.com/crisis-intervention/) argue that there indeed is an empirically observable falling rate of profit. Either way much of the debate has moved away from actually proving whether or not a rising organic composition is the cause of the fall in the rate of profit to whether or not there actually is a fall in the rate of profit. (Actually this is a bit of a simplification. Much of the debate is still on theoretical terms- that is, how to understand Marx’s theory of crisis and whether Marx’s method is complete or requires some modification or even abandonment.)

We have seen that the percentage of surplus realized per $100 invested in capital shrinks while the mass of profits grows. A similar process can be observed in the prices of commodities. As productivity increases the individual commodity becomes cheaper and cheaper because it contains less and less labor. Yet the mass of profits increase. Why? Though each commodity contains less labor, the ratio of surplus labor to necessary labor (labor which goes into reproducing the value of the wage) rises.

Thus we can see the same forces that cause the falling rate of profit in the falling prices of commodities. However we can’t calculate the falling rate of profit just by looking at the proportion of c to v to s contained in a single commodity. This is because the rate of profit is calculated on total capital expenses including fixed capital that does not enter directly into the price of a commodity. C does not equal k. Cost price is not the same as total capital invested.

Engels makes an interesting side note about the actual accounting practices used to measure the turnover time of capital. If I may pose my own example in place of Engels’ example, merely because mine is more interesting and contains no math: I was talking an acquaintance who used to grow marijuana and sell it. He grew it indoors which required a lot of investment in grow-lights, hydroponics, and electricity. He explained that this initial expenditure was at first a “drag” but then he explained to me: “But you have to realize that even though you are putting, like hundreds of dollars into this equipment and stuff that after a year it has paid itself off. Everything you make after that is pure profit.” This is exactly the sort of accounting practice that Engels is complaining about. Actually the value of grow-lights and hydroponics enters into the value of the marijuana only to the extent that it is used up. This is the cost-price. The rest of the value is a representation the labor that goes into the growing process (though here my example breaks down because of the monopoly prices gained by selling illegal
substances.) It’s not that the first year of selling drugs pays off the equipment and the rest of the years are just some magic profit coming from the market. In reality the price of the marijuana (if we abstract away from monopoly) represents the cost of production to the extent that productive equipment is used up, plus labor time. It thus takes much longer to realize the cost of these investments than my friend thought.

The larger point of Engels’ aside is that we can’t understand the full significance of a commodity’s value without seeing it in relation to the total capital. Again and again we are reminded of the social nature of production in a market society - that all of these private labors only discover their meaning when they are brought to the market and compared with all other private labors - that profit is a result of the exploitation of one class by another, not an individual by another individual.

Marx spends a lot of time repeating the basic theme of falling commodity prices, rising mass of surplus value and falling profit. He then ends the chapter with the following paragraph which makes me scratch my head:

“The analysis of how far a falling rate of profit may coincide with rising prices no more belongs here than that of the point previously discussed in Book I (S. 280-81 [English edition: Ch. XII. — Ed.]), concerning relative surplus-value. A capitalist working with improved but not as yet generally adopted methods of production sells below the market-price, but above his individual price of production; his rate of profit rises until competition levels it out. During this equalisation period the second requisite, expansion of the invested capital, makes its appearance. According to the degree of this expansion the capitalist will be able to employ a part of his former labourers, actually perhaps all of them, or even more, under the new conditions, and hence to produce the same, or a greater, mass of profit.”

We know from Volume one that one of the main drives for innovation, for increasing expenditures on constant capital in order to reduce commodity prices, is this race for this temporary relative surplus value (super profits). As opposed to the other type of relative surplus value which comes from cheapening the means of subsistence, this later type comes from decreasing the individual capitalist’s commodity values below the socially necessary labor time so as to pocket the difference as profit. This sucks the entire industry into a race to lower prices through innovation. What puzzles me here is Marx saying that this point does not belong here in this chapter on the Falling Rate of Profit. I understand that this description is different than the description of the drive just to accumulate a greater mass of surplus value. Yet clearly this drive for temporary relative surplus value is a source of rising organic composition.

When I made my original video about the Falling Rate of Profit I actually exclusively appealed to this notion of relative surplus value to explain the motivation of capitalists to increase the organic composition of capital. I didn’t talk about the rising mass of surplus value at all. It is now clear to me that, here at least, Marx’s main argument
stresses this rising mass of surplus value and that this, rather than referring to a specific strategy of creating surplus value, gets to the more fundamental notion of what it means to accumulate. Still I don’t see why Marx would say, as he does in this last paragraph, that the notion of temporary relative surplus value doesn’t belong in this discussion. I may be misreading him.

To make things more confusing in the last bit of the end of Part 3 (See chapter 15, section 4) Marx does talk about temporary relative surplus value as a way of inadvertently causing rising organic composition and falling profit rates. So it goes with an unfinished manuscript. I may also be misunderstanding what Marx means when he says that the discussion doesn’t belong here.

Chapter 14. Counteracting Influences

The rate of profit does not just plummet downward toward destruction and crisis everyday. Like any other observation we can make about the structural contours of a relation, once we understand the inherent tendencies within this relation we have to put it in a wider context of other relations to see how this wider context mediates the potency of our initial observations. For instance, we know that the wage relation pits workers and capitalists against each other in diametrically opposed material interests. Yet the extent of exploitation and the level of class struggle are mediated by all sorts of other factors like the political strength of both classes, the value of the means of subsistence, etc. Yet these other factors don’t change the basic form of wage-labor. They merely mediate its expression.

More important though is to understand the notion of tendency more deeply. It was until I read Paul Sweezy’s critique of the Tendency of the Rate of Profit to Fall (TRPF) in his classic “Theory of Capitalist Development” that I began to understand the importance of the inner relation between a tendency and a counter-tendency. Of course, I completely disagree with Sweezy on this point. Sweezy points out that many of Marx’s counter-tendencies are linked to the same force as the tendency, the development of the social productivity of labor. He says, for instance, that we can’t privilege the rising organic composition over the rising rate of surplus value because both are caused by a rise in productivity (By introducing more machines into the labor process we raise the organic composition thus lowering the rate of profit, but we also cheapen subsistence goods raising the rate of exploitation and thus the rate of profit.) Sweezy argues that because the tendency and counter-tendency are bound up in the same force that there is no way to determine the dominance of one over the other. It makes more sense, he argues, just to talk about a net change in the rate of profit, not some tangly mess of tendencies and counter-tendencies. Similarly, David Harvey dismisses those who give primacy to the TRPF because of the “complex interaction effects” of all of these counter-tendencies.
Thus, when Sweezy develops his underconsumptionist theory of crisis (the theory which would become the defining backbone of the ‘monopoly school’ or ‘monthly review school’) he treats counter-tendency differently. He identifies a long-term tendency towards underconsumption and stagnation which is mediated by a set of external counter-tendencies. The state mops up surplus capital, the state stimulates demand, foreign markets are opened up, etc. Each tendency is external to the logic of the basic drive to underconsumption. Thus he is able to argue that in the end all of these counter-tendencies will run-out, leading to a long-term tendency towards stagnation.

In critiquing Sweezy’s approach we can bring out what is really crucial and distinctive about Marx’s approach. The whole point of a tendency is that it is generated by the same forces that make for a counter-tendency. And because of this inner relation of a tendency with its own limits, with its own opposite, we get three possible types of motion. This is motion and dynamism generated from an internal contradiction. In his Frontiers of Political Economy Guglielmo Carchedi lists 3 types of tendencies:

1. The tendency dominates and the counter-tendencies are fluctuations around a tendential point. ie the wages
2. The Counter-tendency dominates, the tendency causing aborted and incomplete motions toward a tendential point that is never reached. ie the average rate of profit…
3. Cyclical movement where either the tendency or counter-tendencies are dominant given the point in the cycle.

The TRPF is of the latter, cyclical type. At the rise of a boom constant capital is cheap and the rate of surplus value high. Over time the successive development of the means of production can only squeeze so much more surplus from workers. Every time you double the productivity of a worker you get half as much more SV from them, yet they require twice as much constant capital. And as the mass of surplus value grows relative to the amount of workers in the economy the only place for it to go is into constant capital. It doesn’t matter if the constant capital is getting cheaper. The mass of profit is always getting bigger and more and more of it is going into constant capital while the amount going into wages is falling.

All economic laws act as tendencies and thus all of them have counter-tendencies that are inherent to their internal logic. For instance, there is a tendency for capitalists to overproduce without regard to their markets. But at the same time there is counter-tendency to respond to market signals (falling prices and devaluation) and reallocate capital to more productive investments. This is a dialectical phenomenon. Forces have relations to their opposites. This relation creates a type of motion.

In contrast, Sweezy’s approach is not dialectical but positivistic. He defines underconsumption and its counter-tendencies in isolation, not relationally. Once defined positivistically he brings them into interaction. But this doesn’t allow for any theory of motion. So instead of some sort of cycle we get a theory of long-term stagnation. I
wonder if we can even push this critique farther and ask if all theories of stagnation must be missing some crucial dialectical notion of motion…..

And now for a look at those counteracting tendencies…

I. INCREASING INTENSITY OF EXPLOITATION

If the rate of profit is \( s/(v+c) \) then obviously an increase in the rate of exploitation will increase profits. But how is the rate of exploitation increased? Much of the time the rate of surplus value is increased by increasing the social productivity of labor, by having the same amount of or less workers put into motion more materials or more machines. Thus, while profits rise, the organic composition of capital \((v/c)\) rises as well. In order for a rising rate of exploitation to arrest the falling rate of profit the organic composition must remain stable or change slower than the rate of exploitation.

A rise in absolute surplus value through the lengthening of the working day or hiring more workers can potentially raise the rate of surplus value without changing the composition of capital. Workers work longer and produce a higher rate of surplus value but they aren’t working up more constant capital in relation to the variable capital. The amount of labor being employed is not shrinking in relation to constant capital. This would have the opposite effect of the falling rate of profit. Of course the ability to extract absolute surplus value does imply a growing mass of fixed capital to employ the new laborers so we can’t really argue that there would be no alteration in the composition of capital.

In Volume 1 Marx talks about the historical and theoretical limits to a rise in absolute surplus value. The working day can only be increased so long given the state of class struggle. The working population can only be increased so much relative to the size of capital before wages start to rise. Thus capitalists turn to relative surplus value. Relative surplus value is produced by the increasing the social productivity of labor. The means of subsistence are cheapened by decreasing the socially necessary labor time for means of subsistence. Or individual firms produce at under the socially necessary labor time driving this average level of productivity up through competition. Either way a rising organic composition is implied which means a falling rate of profit even as the rate of exploitation rises.

Here Marx even says that the struggle over relative surplus value is the “real secret of the tendency of the rate of profit to fall.” This relates to my question at the end of the previous chapter as to whether relative surplus value was at the heart of Marx’s theory of rising organic composition. It seems from this passage that it is and that I must be misreading the passage in chapter 13 that I thought suggested otherwise.

One further point, a point Paul Sweezy should have understood but didn’t: There is a limit to the amount of surplus value you can squeeze from a worker. Let’s say that I
work 8 hours a day, 4 hours of necessary labor and 4 hours of surplus labor. My boss decides to double my rate of exploitation changing the proportion to 2 hours of necessary and 6 hours of surplus. In so doing I require twice as much constant capital. This doubling of constant capital produces 2 extra hours of surplus. He then decides to double my productivity again. This changes the proportions to 7 hours of surplus and 1 hour of necessary labor. This time the constant capital has doubled but the surplus has risen by half as much. If we continue the procedure each doubling of constant capital produces half as much additional surplus value. This why the rising rate of exploitation is a counter-tendency and not a tendency.

II. DEPRESSION OF WAGES BELOW THE VALUE OF LABOUR-POWER

Marx doesn’t talk about this here even though he says it is a major factor in arresting the FRP. The depression of wages below the value of labor power belongs to an analysis of competition, which doesn’t happen in this volume. What does Marx mean by this? Clearly prices of production involve competition. The theory of prices of production are a theory of capitalists in competition equalizing the profit rate. I am very interested in Marx’s order of operations so I want to make sure I understand this statement. I think Marx’s order of operations begins in this volume with a look at the rate of profit as an effect of the capital-capital relation. This allows him examine the falling rate of profit which requires an understanding of capital-capital relation and the wage-labor relation. Everywhere here the law of value still operates cleanly. It may take on different quantitative expressions with the price of production, but there are no disturbances in supply and demand which keep market prices from equalling their prices of production. In the real world forces like monopoly and state regulation or just the daily disturbances away from equilibrium force prices away from their prices of production. But we can’t understand these market interferences without first understanding value and prices of production. We measure the strength of monopoly by looking at the degree to which monopoly forces price to diverge from value. Thus value comes first, then the deviation. The same goes for the commodity called labor power. Wages can be depressed below the value of labor power. But we can’t understand this deviation until we understand the price of labor power first. Thus competition which alters the law of value from operating freely is secondary in the primary analysis of the law of value. We first must look at the falling rate or profit and the natural countervailing tendencies that grow out of the basic formal structure of the rate of profit before we look at other forces which alter the ability of the law of value to express itself.

III. CHEAPENING OF ELEMENTS OF CONSTANT CAPITAL

This countervailing tendency is probably the one that has led to the biggest critique of the falling rate of profit. In physical terms, the amount of machines and raw materials can increase per worker but this doesn’t mean that the value of these means of
production must increase. The same social productivity which demands more machines and materials also decreases the value of these materials. Marx has already qualified, multiple times, his description of the rising organic composition by saying that the value of means of production rises more slowly than their mass. Here he devotes just two short paragraphs to the topic and doesn’t really ever give a reason as to why this tendency isn’t strong enough to serve as a long term fix.

In the 2nd short paragraph he does talk about depreciation which is often mentioned as a limit to this counter-tendency. Depreciation of existing capital happens when improvements in social productivity mean that cheaper means of production are being created which lower the market value of the already owned capital. Now, just because the current value of the means of production falls, this doesn’t mean that capitalists that already owned these machines can just subtract the difference from their balance sheets. If my means of production are devalued this means that I have to sell my commodities at a loss and eat it. My rate of profit, measured on my total capital investment, falls because of the depreciation. This is the argument made by the TSSI and others. Notice that it hinges on this notion of temporality. The only way to argue that depreciation lowered the organic composition of capital on already existing capital would be to argue that time was static and that all rates of profit should be measured in some timeless void. (The debate over how to measure the cost of fixed capital (whether at its historical cost or its current cost) is a hot topic. For more see the debates between Andrew Kliman and Michael Husson.)

Yet here in this paragraph it seems unclear as to whether Marx makes this temporal distinction. He seems to be saying that depreciation can arrest a falling rate of profit. He says, “The foregoing is bound up with the depreciation of existing capital (that is, of its material elements), which occurs with the development of industry. This is another continually operating factor which checks the fall of the rate of profit, although it may under certain circumstances encroach on the mass of profit by reducing the mass of the capital yielding a profit. This again shows that the same influences which tend to make the rate of profit fall, also moderate the effects of this tendency.” This doesn’t seem like a good defense of the TSSI reading, yet I can’t see how Marx could be correct in claiming that depreciation of fixed capital arrests a falling rate or profit.

IV. RELATIVE OVER-PopULATION

Here we are discussing an external counter-tendency.

Overpopulation relative to the demand for labor cheapens labor. This takes away some of the urgency in the quest for relative surplus value. If labor is easily exploitable why bother mechanizing and investing in more efficient means of production? Marx argues that this counter tendency is not strong enough to check the TRFP because most industries follow a trajectory of low to high organic composition. As time progresses
the raising of absolute surplus value is less and less useful and the pursuit of relative surplus value gradually increases. The organic composition slowly rises.

Now I think Marx is accurate in describing this gradual rise in organic composition in many industries. But it certainly isn’t true in all industries. This is another area in which the falling rate of profit is sometimes critiqued. In our lifetime we have seen a dramatic rise in the service sector. Some argue that this means a more labor-intensive capitalism. I wonder though if this is really the case with the service sector. Take a hotel for instance. I bet most hotel jobs are classified as service jobs. Now the ratio of constant capital to wages in a hotel isn’t nearly as high as in a auto-factory. Still, a hotel spends a lot of money on fixed capital and energy costs. It’s not exactly a low organic composition industry either. How many of these service jobs really have truly low organic compositions? I’m curious if there has ever been an attempt to actually chart organic composition in various industries. This would certainly add a lot to the debate. Erik Olin Wright cites a 1972 paper by Mario Cogoy on this subject and concludes that, “Even a strong proponent of the rising organic composition thesis such as Cogoy has to admit that the meagre data which support his views are as equivocal with the data which oppose them.”(I haven’t read Cogoy’s paper myself as it appears to be in French though he did write a 1973 paper on the topic in response to Paul Sweezy which I may take a look at.) Of course not all jobs classified as “service sector” are productive labor. The financial industry is often characterized as a service industry but these are not productive industries and so they do not figure into accounts of organic composition. And we can’t forget that the rise of the “service sector”, both unproductive and productive, came as a response to the crisis of the 1970’s which was a crisis of large industry with high organic compositions.

V. FOREIGN TRADE

This is also an external counter-tendency.

Foreign trade allows capital to seek out cheaper inputs, thus lowering the cost of constant and variable capital. This raises the profit rate. But this also encourages the growth of accumulation which tends to raise the organic composition which tends to lower profit rates. Like the decreasing value of constant capital Marx always sees the overall trajectory of accumulation itself as the primary motive force in falling profits. If anything foreign trade is a means of postponing these falling profits. This idea of displacing crisis geographically doesn’t really appear in any mature form in Marx, as far as I know, but it is a key part of David Harvey’s analysis of the geography of capitalist accumulation. Marx does here say that there is a need for an “ever-expanding market” though he doesn’t give a reason for this here. I assume that, true to his argument in volume 1, that this means that capital is always in search of more labor power and more raw-materials, though he could also mean, as the underconsumptionists argue, that this ever-expanding market comes from the need to sell-off surplus product.
Foreign trade can also boost the rate of profit because of imbalances in the rate of profit, value of labor-power, rate of exploitation, and exchange rates between countries. A highly-mechanized first-world country can produce commodities more efficiently than in peripheral nations. When they sell in those markets they do exactly the same thing that a capitalist who produces below the socially necessary labor time does: they sell their commodities in this foreign market above their value but below the socially necessary labor time in the country. Thus they realize higher profits than they would in their home country.

Colonial and peripheral countries often have higher rates of profit which attracts the investment of capital. I don’t quite understand the point Marx is making in regard to Ricardo in terms of investing capital in these countries with higher profit rates…

But this unequal exchange can boost profit rates in both the advanced country and the dependent country. The advanced nation receives more labor through the inequality of exchange. While the dependent nation gives up more labor in exchange, they also receive commodities at prices much lower than they must pay in their own country. If they are buying productive inputs then this can boost the rate of profit in both countries. But regardless of these effects, the overall trajectory of foreign trade is toward a rising organic composition in the home country and over-production for foreign markets.

Before Marx goes onto discussing the last counteracting tendency, stock capital, he takes about a page to summarize his argument about counteracting tendencies. (He does this here, rather than at the end of the chapter, because the last counter-tendency is of a different nature.) The counteracting tendencies don’t “do away with the law, but impair its effect. Otherwise, it would not be the fall of the general rate of profit, but rather its relative slowness, that would be incomprehensible. Thus, the law acts only as a tendency. And it is only under certain circumstances and only after long periods that its effects become strikingly pronounced.” It would be nice to get a more thorough explanation of how this effect takes place over long periods of time, what form it manifests itself in, etc. But we don’t get that here. This idea of falling profit rates over long periods of time does correspond with the theory of Long Waves (which I associate with Mandel’s book on Long-Waves) as well as with Kliman’s recent research into long-term profit rates (different than Long Wave theory).

The only new point Marx makes in the summing up is that profit rates don’t fall because of a rise in wages. This was the conservative explanation of the crisis of the 1970’s. We heard echoes of it again when this crisis revealed excess capacity and stagnation in the US auto-industry. Marx says that a rising rate of surplus value can accompany a falling rate of profit. Capital goes into crisis because labor is more productive, not less productive. Of course a rise in wages could squeeze profits. But this runs counter to the entire trajectory of accumulation which tends to decrease the value of labor power. Thus a fall in profits due to rising wages must be seen as an exception to the general tendency of accumulation.
VI. THE INCREASE OF STOCK CAPITAL

This last point is different from the rest because it involves the distribution of surplus value between money-capital, productive-capital, and rent. Interest payments are a deduction out of total surplus value. Thus they are smaller than the total surplus value. Money-capital gets a lower rate of return on investment than the average rate of profit. If we were to calculate the profit rate based on interest payments the TRPF would be even lower. That is why Marx doesn’t talk about this division of the surplus until after he’s talked about the rate or profit in the abstract.

Now, just dividing the mass of surplus value up into interest, rent, merchant capital, productive profit, etc. doesn’t effect the rate of profit. But when people invest in stock they accept a lower rate of return on their investments, called dividends. This keeps the profit rate from equalizing which means that joint-stock companies like railroads don’t enter the equalization of profit rates. If these companies were brought into the equation the profit rate would drop even lower.

I don’t think I fully understand this. Why would issuing stock keep a firms profit from entering into the equalization of the profit rate? It seems that the credit system is a tool for equalizing the profit rate even better. Yes, is smoothes over temporary fluctuations in profitability, but it also unifies all investment decisions around a uniform interest rate.

Flipping through David Harvey’s “Limits to Capital” I found a brief mention of this issue. Speaking of the centralization of capital in his chapter on interest-bearing capital he says, “But the credit system also furnishes means to counter the de-stabilizing effects of technological and organizational change. For example, Marx lists an increase stock capital as one of the influences counteracting the tendency towards a falling rate of profit. Undertakings of particularly high value composition comprised largely of fixed capital can be organized via the credit system so as not to ‘enter into the equalization of the rate of profit’ since they can be produced if they yield ‘bare interest’ only.” (Limits, p.271. The quotes are from Marx.)

Ironically I see a giant question mark next to this passage that I must have drawn when I read this book several years back. But then over the question mark are drawn three exclamation marks to show that on a later rereading I had figured out what it was all about. I then had written, “Brilliant!” underneath the passage. Of course now I don’t remember what was so brilliant or how I had made sense of this. So it goes!

I later posed this question on marxmail and got some long responses from a few different folks, some which disagreed with each other. One day I will get around to sorting this out and posting a better explanation.
Chapter 15. Exposition of the Internal Contradictions of the Law

After two chapters of pretty straightforward exposition of the falling rate of profit this chapter struck me as shockingly ambiguous at times. It contains several passages that seem blatantly underconsumptionist. I can also see where confusion comes from between terms like overaccumulation and overproduction. As with much of this book my suspicion is that the most constructive approach is to always try to settle dispute over the micro-details of textual interpretation through recourse to the general methodological structure of the argument.

I. General

The central problem is that of the rising social productivity of labor. Under other circumstance this productivity could be a good thing but within the context of capitalist social relations it is self-contradicting. (And it is this way with everything in capitalism- the use-value contradicts the exchange-value.) The mass of surplus value rises at the same time that the rate of profit falls. Capital fulfills its purpose in self-expanding yet at the same time it negates itself by diminishing the very component that breathes life into it, human labor. Yet this contradiction is only true to the extent that rising productivity results in a rising organic composition of capital.

Thus Marx’s explanation of the falling rate of profit exposes the historical limit to capitalism. Prior theories of capitalist crisis rested on the idea that crisis was a result of some eternal trauma or limit to the natural equilibrium of the system. For Marx such external interferences are secondary to the antagonism that exists at the heart of the system. Yet, what does Marx mean when he says that the FRP exposes the historical limit to capital? There has been debate as to whether Marx saw crisis as a terminal stage of capitalism- that capitalism will reach a crisis which it cannot overcome. But this is not a currently accepted view of crisis amongst any of the contemporary crisis thinkers I have followed. Crisis is a central part of the accumulation cycle. It devalues capital, destroys some of the accumulated surplus, clearing the way for accumulation to begin anew. While many capitalists may not survive crisis, capitalism seems to always emerge renewed and stronger. I don’t think we should read Marx’s comment about the historical nature of capital as expressing some faith in a terminal crisis. I think it is more useful to say that there are limits to how far the social productivity of labor can be developed without contradicting the private ownership of means of production- that capitalism limits the historical development of the human species.

After a brief criticism of Ricardo Marx turns to a discussion of the limits to the creation and realization of surplus value. The argument he makes is pretty straightforward. What isn’t so clear is how this relates to the rest of his argument about the falling rate of profit. I’ve seen parts of these two paragraphs quoted by underconsumptionists, yet the surrounding paragraphs seem to bear no relation at all to the problem of realization that they talk about.
Marx begins by saying there are two limits to the production of surplus value. These are the size of the population and the rate of exploitation. Assuming a given rate of surplus value, capital can only appropriate as much surplus value as there are workers to be exploited. Given a fixed working population capitalists are only limited by the degree of relative surplus value they can extract from workers. All this sounds good and familiar. This is the basic distinction between absolute and relative surplus value. But what about the falling rate of profit? Is this a limit to surplus value production? Later in section III of this chapter (p.251 Moscow Edition) Marx will say that the falling rate of profit forms a limit to accumulation at that point in which the growing mass of surplus value isn’t great enough to compensate for the falling rate of profit. Yet here he says that “the creation of surplus value has no other limits than those mentioned above”. This is because the TRFP is not a limit on surplus value production but on the cost of surplus value production. In other words, the TRFP says that producing SV gets more and more expensive, but not that it can’t be produced.

What are the limits to the realization of surplus value? This limit is the “antagonistic conditions of distribution, which reduce the consumption of the bulk of society to a minimum varying within more or less narrow limits.” This looks like the basic underconsumptionist argument. Later, on page 257, he will even dismiss the classic response to this underconsumptionist argument, that capitalists can make up their own demand for surplus products.

Here there is much interpretive room for debate as to how to make sense of these statements and how they relate to the overall structure of the argument. What is the status of the realization problem to crisis theory? What is the relation of realization to the TRFP?

I’ve seen these passages quoted so many times, and with such different takes. Though I tend to agree with his work on crisis theory I couldn’t help but laugh at Guillelmo Carchedi’s interpretation where has to insert copious bracketed qualifications:

It is this contradictory outcome, an increasing output of use values incorporating a decreasing quantity of (surplus) value, that is the ultimate cause of crises: “periodical crises … arise from the circumstance that now this and now that portion of the labouring population becomes redundant under its old mode of employment” (op. cit, p.264). In other words, ultimately crises are the consequence of labour reducing but productivity increasing technological innovations. Therefore, “the ultimate reason for all real crises [as opposed to financial and speculative crises, G.C.] always remains the poverty and restricted consumption of the masses [due to the expulsion of labour as a consequence of labour decreasing and productivity increasing technologies, G.C.] as opposed to the drive of capitalist production to develop the productive forces [the productivity of labour through those technologies, G.C.] as though the absolute consuming power of society [rather than the poverty and restricted consumption of the masses, G.C.] constituted their limit” (op. cit. p.484). As argued above, this quotation
should not be interpreted in an underconsumptionist light, as if it were impossible to realize all the (surplus) value produced. This would then be the ultimate cause of crises. But for Marx there is no such theoretical impossibility.”

-Carchedi’s “Return from the Grave” recent crisis essay.

It seems like Volume 2 left us with the conclusion that there was no realization problem- that given the correct investment strategies capitalism could go on accumulating forever. The premise that Marx’s reproduction schema was based on was the premise that technological changes were held constant. This immediately leads to Volume 3 which is about the destabilizing effects of technological change on profit rates. On the other hand we could view the Volume 2 argument as establishing the analytical possibility for balanced accumulation, which is different than saying that realization problems can’t happen. In fact if we remember way back to the beginning of volume 1 we’ll remember that it is the separation of purchase and sale which makes crisis a possibility. A crisis is, by definition, a phenomenon which we will witness in the realm of the market, in the inability to sell things and purchase things. But the fact that it appears in the market does not mean that its source is in the market.

I guess we could also argue that the reproduction schema of Volume 2 also rest on the assumption that there is some way of actually knowing what investment strategies will allow for reproduction. It could be argued that without some sort of planning we end up with realization problems. I feel like such arguments are constantly being alluded to by David Harvey in his Limits to Capital where after explaining the complexity of turnover times or fixed capital investments he asks how capital could maintain balanced growth given the lack of coordination. But isn’t the profit rate a means of coordination? Or, at least, isn’t it supposed to be? If the profit rate is stable capital should be able to flow from sectors of overproduction into profitable areas with market demand (like the demand for capital goods). The profit rate is the coordinating force that should take care of realization problems. That doesn’t mean that all SV is always realized. The process of investment, mistakes, failures, readjustments of investment will involve some SV not being realized, some devaluation, etc. But this is not the same as a crisis. Or, to put it another way, this happens on a different level of abstraction than the forces of crisis. This is why realization questions always resolve to a discussion of the profit rate and whether or not it can do its job.

For many, the attempt to establish a singular theory of crisis is pointless…. There are multiple places where capital can break down. This is the gist of the plural in Harvey’s “Limits to Capital”. On the other hand, even Harvey, wants to give these Limits a unifying theme, the overaccumulation of capital (or in his current pedagogy “3% compound rate of growth). Harvey’s desire to treat all the different “limits” to capitalist accumulation as just a list of factors, all on the same level of abstraction reminds me of Sweezy’s statement that instead of talking about a tendency of the rate of profit to fall we should talk about the overall change in the rate of profit as influenced by a variety of factors, none of which have some sort of primacy. This emphasis on multi-causal
theories of crisis are often accompanied by admonitions to avoid “dogmatism” and “orthodoxy”.

I find these comments about dogmatism distasteful and problematic but I won’t get into that here. In terms of multi-causal theories I have this to say: the difficulty with Marx’s method, and with understanding capitalism, is that we are dealing with lots of different levels of abstraction and vantage points at the same time. Just thinking about all of the contradictions of a capitalist society, workers vs. capitalists, use-value vs exchange-value, the contradiction in the money form, workers vs machines, etc, one might be tempted to see these as a series of intertwined but separate contradictions. I don’t think this is the case. I think that they are all the same contradiction which takes many different forms. The most fundamental of these is the contradiction between ourselves and our alienated product. This takes the form of a commodity with a use-value and an exchange-value. This exchange value takes the form of capital and capital takes the form of capitalists, etc.

In terms of crisis theory, these contradictions all come to the fore in a crisis. Their inner antagonisms are laid bare (more of less). The contradiction in the money form becomes speculation and debt, the contradiction between production and exchange becomes a realization problem, the contradiction between classes becomes austerity and political struggle, and the contradiction between ourselves and our alienated product is expressed in the tendency of the rate of profit to fall. The Marxist project is more than just identifying these contradictions. It seeks to systematize their inner relations to get at their most fundamental nature. This is why I think it is important to theorize crisis as a structure of inter-related categories rather than a list of limits.

On with the chapter….

The rest of part one of this chapter is more straightforward.

The accumulation of capital is not just dependent on the mass of profit but also on the prices of the means of production and labor power that the capitalist purchases in the market. A larger capital with a low rate of profit creates more surplus value than a small capital with a high rate of profit. This is an often repeated theme. Marx suggests that at some stages in history capital may be content with a relatively high rate of profit and relatively low productivity of labor because wages are low. Later it will be forced to raise the social productivity in order to increase relative surplus value. This historical treatment of different accumulation strategies is crucial the “regulation school” of thought that we associate with Michel Aglietta.

The advantages accruing to large capitals lead to a growing concentration of capital in larger and larger firms. The petty bourgeoisie are appropriated by large capitalists until “The labour of a capitalist stands altogether in inverse proportion to the size of his capital, i.e. , to the degree in which he is a capitalist. It is this same severance of the
conditions of production, on the one hand, from the producers, on the other, that forms the conception of capital.” I like this bit. It forms a handy retort for the idea that capitalists create value through their own work.

II. CONFLICT BETWEEN EXPANSION OF PRODUCTION AND PRODUCTION OF SURPLUS-VALUE

The reduction of the necessary labor time in order to increase surplus labor time and the reduction in the amount of labor power employed per unit of invested capital both come from the same law. They are the two sides of the same coin yet they have opposite effects on the rate of profit. The mass of profit is equal to the rate of surplus value multiplied by the amount of workers employed (s’v). The reduction in necessary labor time raises the rate of surplus value but decreases the variable capital by which this rate is multiplied. This means that there is a natural limit to the amount of workers that can be eliminated from production. This is different than just the falling rate of profit. It’s a limit to the mass of profit itself. “Two labourers, each working 12 hours daily, cannot produce the same mass of surplus-value as 24 who work only 2 hours, even if they could live on air and hence did not have to work for themselves at all. In this respect, then, the compensation of the reduced number of labourers by intensifying the degree of exploitation has certain insurmountable limits.” This forms another check on a falling rate of profit. Thus Marx’s theory of the falling rate of profit is not just about the absolute fall in the amount of workers employed because there is an internal limit to how many workers can be eliminated. It is also a theory of rising organic composition.

This next paragraph (p.248) must have been written while Marx was smoking crack. Let’s see if I can make any sense of it.

The development of the social productivity of labor usually depreciates the existing stock of capital. For example, the production of new, cheaper, more efficient steam drills depreciates existing stocks of steam drills. A rise in productivity can cheapen the means of subsistence or constant capital. As we have seen, these changes in productivity lead to a fall in the rate of profit while they at the same time can mediate that fall by raising the rate of SV or cheapening constant capital. Both decreasing the price of variable and constant capital lead to a depreciation of the existing capital. Yet Marx seems to be saying that they also may lead to an increase in the value of existing capital if they can somehow raise the profit rate, thus raising the value of the surplus that is reconverted into capital. This sounds like the idea of release and tie-up of capital discussed in Chapter 6. A fall in the price of constant or variable capital releases capital to be reinvested so that capital can expand. But it doesn’t make sense, to me, to say that this increases the value of the existing capital. It adds to the mass of the existing capital creating a bigger capital of bigger value. Perhaps Marx is missing this temporal distinction here.
Indirectly, increased productivity can increase the value of existing capital in the following way. To say a capital represents increased productivity means that its machines can absorb more labor and produce more use-values. A more productive assembly line can employ more workers and put out more products. Thus it allows for the creation of more surplus value. In this indirect way rising productivity raises the value of existing capital. This is an interesting take on the relation between exchange value and use-value. A more productive assembly line doesn’t necessarily embody greater exchange value than a less productive one. In this sense it has less value. But it allows for the future creation of more value. It’s use-value represents a greater potential value. But we shouldn’t make the mistake of thinking that Marx is saying that this use-value creates value in and of itself. That is the bourgeois definition of capital. For Marx capital is only valorized by human labor.

Capital seeks to absorb greater and greater quantities of human labor as accumulation sends capital across the globe, penetrating and creating new labor markets. At the same time the mass of surplus value embodied in capital grows and grows, always seeking more labor to valorize itself. These two processes do not just happily coexist. They contain a contradiction. Capital expands by decreasing the amount of labor employed in relation to the mass of capital. Thus we see on one side an increase of the working population and on the other an increase in relative over-population.

This, of course, is the way the rising mass of surplus value and falling rate of profit manifests itself in regards to population and employment. In the next few paragraphs Marx adds depreciation into the forms of appearance of these forces. Depreciation is a counteracting influence against a falling rate of profit. If the capital which the rising mass of surplus value is embodied is devalued then there is less surplus seeking valorization and capital can begin anew. A few paragraphs later though Marx remarks that this process of devaluation is not a simple and pretty one. When capital is devalued all sorts of things can happen depending on the size and nature of the devaluation. When AIG writes off losses lots of people lose jobs. When Detroit’s auto plants are devalued we call it a crisis in the auto industry. Marx isn’t specific about the difference between devaluation that temporarily stabilize profit rates and devaluation that results in major crisis. Yet, he does seem to be aware that there is some difference between the two.

Despite what seem to me like some unclear and unworked out arguments at times this section of chapter 15 ends with some good stuff. We are reminded that all of these different factors can occur at once or at different points in time. The specific way they manifest themselves are a result of historical contingency. There is nothing deterministic about this. The general contradiction is that between the forces and relations of production, though Marx doesn’t come right out and make this point specifically. Instead he says that capital must develop the productive forces to their maximum “regardless of the value and surplus-value it contains, and regardless of the social conditions under which capitalist production takes place”. At the same time
capital must preserve the value of the existing capital and expand that value. The development of the productivity of labor negates its ability to do this. In Harvey’s attempted synthesis in Limits to Capital he de-emphasizes the falling rate of profit and emphasizes this idea of a conflict between the forces and relations of production as the real central point around which crisis theory develops. (Again, I’ll save a more detailed discussion of Harvey’s synthesis for later.)

The strategies which capital takes in order to save itself from crisis only postpone the crisis in time and space making that crisis even larger and more severe when it inevitably breaks out. Such an argument shows how thoroughly dialectical Marx’s entire exposition of capital is. From the very beginning of Volume One we see the contradiction between use-value and exchange value transferred to higher levels of contradiction. An ever-expanding argument unfolds in which contradictions are displaced to higher and higher levels, creating larger and more confusing structures, all attempting to resolve the fundamental contradiction(s) at the heart of the system. David Harvey’s real addition to this body of theory is his analysis of the way these contradictions are displaced in space and time, his creation of a field of Marxist geography. Whether or not we agree with all of Harvey’s synthesis of Marx’s crisis theory it is clear that this important dimension of capitalist history is not fully elaborated in Marx. Yet such an understanding of capitalism is essential for any serious analysis of capitalism today.

This 2nd section ends with some rather famous concluding remarks from Marx:

“The real barrier of capitalist production is capital itself. It is that capital and its self-expansion appear as the starting and the closing point, the motive and the purpose of production; that production is only production for capital and not vice versa, the means of production are not mere means for a constant expansion of the living process of the society of producers. The limits within which the preservation and self-expansion of the value of capital resting on the expropriation and pauperisation of the great mass of producers can alone move — these limits come continually into conflict with the methods of production employed by capital for its purposes, which drive towards unlimited extension of production, towards production as an end in itself, towards unconditional development of the social productivity of labour. The means — unconditional development of the productive forces of society — comes continually into conflict with the limited purpose, the self-expansion of the existing capital. The capitalist mode of production is, for this reason, a historical means of developing the material forces of production and creating an appropriate world-market and is, at the same time, a continual conflict between this its historical task and its own corresponding relations of social production.”

III. EXCESS CAPITAL AND EXCESS POPULATION
As the social productivity of capital grows the minimum amount of capital required for a producer to actually produce at the socially necessary labor time grows. Smaller capitals are crowded out of the market or confined to marginal sectors of production. Even though these larger capitals have a lower real rate of profit they amass a larger amount of surplus value. We’ve heard this all before, but Marx takes the argument in a new direction. This accumulation eventually leads to overproduction of capital. This overproduction doesn’t just mean over-production of commodities (although capital does take the form of commodities and so this can manifest itself as overproduction of commodities) but of capital in general. It is an overaccumulation of capital. Harvey uses this term “overaccumulation” to characterize capitalist crisis. (I have reasons to question Harvey’s preference for “overaccumulation”, but again I’ll save this for later.) What does overaccumulation mean? It means the same thing Marx has been saying all along: a rising mass of surplus value with a shrinking pool of profitable alternatives to employ this capital. At some point this mass of capital grows to such a size relative to the rate of profit that the amount of surplus value produced is the same or less than that mass of capital. This is when a crisis breaks out. This is not a crisis of a particular industry, not a business cycle, but an all-out crisis of the system.

But how does it break out? What form does it take? Marx says the first sign is actually rising wages in response to the growing demand for variable capital to valorize the overaccumulated mass of surplus value. Marx doesn’t expand upon this point here, which is a shame. A cursory look at the current crisis and many of the theories of this crisis reveals 30 years of stagnant wages. (At least, this is the most commonly accepted view of the trend in wages. See Andrew Kliman’s newest work which challenges some of this.) Theories of underconsumption argue that it is falling wages that create a crisis of realization. It seems, at first, as if empirical observations of the last 30 years are on the side of the underconsumptionists and not Marx’s falling rate of profit and rising wages. Yet Falling Rate of Profit theorists have a much longer view of this crisis. They argue that the current crisis is the continuation of the crisis of the 1970’s which was never allowed to come to completion (sufficient amounts of capital were not destroyed) due to interventionist policies of states and alliances of the capitalist class. The 1970’s much more closely resemble the descriptions of crisis made by the FRP, even this bit about rising wages. From 1967-1973 annual wages grew at 2.5% per year. After ’73 they grew by less and less until 1995-2000 when they rose by 2.4% a year only turn actually shrink in new millenium. (Figures cited from G. Carchedi’s “The Return From the Grave, or Marx and the Present Crisis)

The overaccumulation of capital can result in a growing demand for labor power to valorize this capital which leads to a rise in wages. This rise in necessary labor relative to surplus labor lowers the rate of profit and results in a general crisis of the system.

This overaccumulation means that a portion of the mass of capital must lay idle. It could be any portion of capital: new capital, old capital, etc. The specific section of the capitalist class that bears the brunt of devaluation is determined by contingent factors
involving competition and the balance of powers between factions of the capitalist class. This element of the theory is not worked out fully by Marx either, though here and elsewhere (like his discussion of the cotton crisis in chapter 6) we get some good starts. The cost of devaluation is often socialized. In our current crisis the state and the tax payers have taken on the cost of absorbing the devaluation of the credit markets. Homeowners have sacrificed their homes to absorb the devaluation of capital. Labor-power is devalued as the reserve army of labor grows.

The fraternity of the capitalist class becomes factional struggles between portions of the capitalist class. Regardless of the specific result of this struggle, the result of the destruction/devaluation of capital. Not only does a capitalist society produce value. It also produces devaluation. Devaluation can happen in many ways. An idle factory or machine looses value. Unemployed workers increase the industrial reserve army and drive down the price of labor power. Bad assets must be written down or sold at a loss. Bankrupt companies are sold at fire-sale prices.

The chain of payments breaks down. In Volume 1 Marx tells us that the process of converting money into commodities and back again is central to a commodity economy and that the use of money as a medium of exchange introduces an element of potential breakdown into the system of social reproduction. Money makes it possible that a purchase doesn’t always mean a sale, that supply doesn’t always create its own demand (as was claimed by Say’s Law). The credit system resolves many of the day-to-day potential irregularities of commodity exchange by allowing purchasers to spend money before they actually have it. But this entraps the entire economy in a chain of payments. This chain of payments becomes when a link in the chain is severed. Bottlenecks and shortages arise. Yet such problems only become system-wide when there is a general crisis of profitability in the system itself. I recently read a paper by Duncan Foley (often called a Marxist, though I hear rumored that Foley himself doesn’t answer to this label anymore, instead saying that it is “impossible to call oneself a Marxist or not.”) which focusses much of its attention on describing the fragility of the chain of payments in the current credit system, a system based on a precarious mess of collateralized debt obligations, mortgage-backed securities, credit default swaps, etc. But Foley’s fault is to substitute a hyper-focus on the financial system for a real theory of crisis. Marx tells us in Volume 1 that money (and thus the higher forms of credit money which seek to resolve the contradictions of the money form) only creates the possibility of a crisis. A real theory of crisis must look to the antagonistic social relations of a capitalist society, not just the psychology of financial interactions.

In developing a critique of those who deny the phenomenon of over-production Marx makes the following points. Overaccumulated capital takes many forms, one of which is commodities. Hence overproduction of commodities is a symptom of a larger problem, the overaccumulation of capital. This is not just a matter of an accidental disproportion between different sectors of the economy. The pressure to accumulate and increase the social productivity of labor acts as a general law upon all sectors. For those that say that
overproduction can be avoided by capitalists consuming the surplus it must be pointed out that capitalists are in business not to consume the surplus as luxury goods but to productively consume the surplus in order to produce more surplus. This shouldn’t be confused as a rejection of one the main arguments against underconsumption theory (on a preliminary reading I made this mistake myself.) It is often argued that underconsumption is not a problem in itself because capitalists can buy the surplus from each other. This is a valid argument. Marx is critiquing the idea that this absorption of surplus can be an absorption for the personal consumption of the capitalist class. Capitalists must reinvest surplus to expand production. A limit to accumulation must therefore come from the inability to invest this surplus productively, not from an inability to purchase the surplus value.

Over and over we are reminded that capital produces for it’s own monstrous purposes, not in order to meet the needs of society. It develops the social productivity of labor not in order to make work easier but in order to increase the mass of surplus value. But at some point the development of this social productivity comes into conflict with the social relations of capitalism. The rising organic composition can no longer support capitalist accumulation. The wage-labor relation comes into crisis. All hell breaks loose and the capitalist class has to call upon the powers of the state (the coercive arm of the state ultimately exists to defend the social relations of capitalism) to rescue the social order. It seems to me that the FRP grows naturally out of Marx’s idea of a conflict between the forces and relations of production and that this, above all else, establishes it as the legitimate theory of crisis over underconsumptionism, overproduction, profit-squeeze, and all of the other “marxian” claimants upon this title. It is this idea that the development of the forces of production have rendered the social relations of capitalism obsolete that gives justification to the marxist political project of replacing capitalism with a saner, more human, mode of production.

IV. SUPPLEMENTARY REMARKS

The productivity of labor and the individual rate of profit of each sector develop disproportionately. This is partly the result of the anarchy of capitalist competition. But it is also a result of the different ways in which capital relies upon natural conditions. Agriculture, for instance, relies closely on natural conditions whose cycles, as we saw in the chapter on the cotton crisis, do not neatly fall in-line with the rhythm of accumulation. Later, in the chapters on rent, we will see Marx deal more in-depth with the relation of the internal logic of capital with the external rhythms and patterns of the natural world and the way these create all sorts of strange uneven development.

Engels inserts 2+ pages to remind us that the race to raise productivity doesn’t necessarily aim at reducing all human labor, just the paid portion.

There are several paragraphs repeating the arguments about the way in which the rising productivity of labor produces a concentration of capital as the amount capital one must
own to begin production grows. (There is also a comment about Railroads not making average profits, a point I am still confused about.) But there will always be some industries which, for whatever reason, are not compelled to increase the organic composition. This slows the fall in the rate of profit. The production of relative overpopulation proceeds unevenly as well.

These remarks about the increasing size of capital end with Marx at his best:

“This social power no longer stands in any possible relation to that which the labour of a single individual can create. It becomes an alienated, independent, social power, which stands opposed to society as an object, and as an object that is the capitalist’s source of power. The contradiction between the general social power into which capital develops, on the one hand, and the private power of the individual capitalists over these social conditions of production, on the other, becomes ever more irreconcilable, and yet contains the solution of the problem, because it implies at the same time the transformation of the conditions of production into general, common, social, conditions. This transformation stems from the development of the productive forces under capitalist production, and from the ways and means by which this development takes place.”

Marx then discusses the way relative surplus value causes capitalists to compete to lower the socially necessary time by investing in innovation, thus raising the organic composition. This is the competitive, temporary relative surplus value that comes from producing below the socially necessary labor time. In my remarks on Chapter 13 I pointed out that it seemed like there might be two intersecting arguments about the falling rate of profit, one which stresses the rising mass of surplus value and the other which stresses this competition over relative surplus value. I myself had stressed the latter in my video on the FRP, but Marx seems to stress the former in chapter 13, even going so far as to imply that the relative surplus value argument didn’t belong at this point of the analysis. Yet here Marx develops the relative surplus value idea without relating it to the growing mass of surplus value idea. I suspect that a synthesis would hold the rising mass of surplus value as the dominant idea and relative surplus value as very strong secondary part of the argument. In the example of, say, a hypothetical economy under conditions of extreme monopoly and little competition (assuming that monopoly blunts labor-saving competition which is probably a bad assumption) the rate of profit would still fall because the growing mass of surplus value by itself would lead to a rising organic composition.

This disorganized collection of supplementary remarks ends with “3 cardinal facts of capitalist production”:

1. The concentration of means of production in a few hands thereby creating “social production capacities” whose fruits are appropriated by a tiny minority.
2. Private labors become organized as one social labor process.
3. World market.
The first two facts “abolish(es) private property and private labour, even though in contradictory forms.” If the increasing concentration of capital in Marx’s time seemed to “abolish private property” in the sense that the means of production were increasingly centralized and beyond the control of one individual, it is even more so today. In our current crisis we see that capital is immensely interconnected through the credit system and capital markets. We also see that private ownership of capital is hard to pinpoint. Who owns a corporation? Stockholders? The CEO? Who owns all of those sub-prime mortgages? Nobody knows! Capital is truly too big to be owned by any one person. It is truly “an alienated, independent, social power, which stands opposed to society as an object…” Yet it is “an object that is the capitalist’s source of power,” clearly seen by the way in which the capitalist class has colluded through the state to bail itself out.

For Marx this increasing size and productivity is in direct contradiction with this out-moded social basis of private property. Yet this contradiction between forces and relations was clearly not mature enough in Marx’s time to mean the end of capitalism. Are things different in our time?