Money as Measure of Value **Chris Arthur** Wednesday, July 23, 2003 (Rough Draft)

Intro: What is a Value Form Approach to Money?

A value form approach to money shows that money is no mere ëveilí of the ërealí material content of economic relations; it is ëof the essenceí of value relations; not merely the shape in which an underlying matter is expressed. A value form approach follows from the insight that there is no such thing as an ahistorical asocial economic science of a material-technical character. Every mode of production is specified in terms of the *social form* within which productive activity is carried on. In the case of capitalism, money is the social form within which production for exchange gains validity.

In the first part of this paper I investigate the concepts of value and money, with a view to arguing that value cannot exist without an adequate form; and such a value form is itself without adequacy unless money is present. This view contrasts with that in which money is of importance merely as a common standard of measurement, in principle as a kind of numeraire. But on my account only money makes value *actual*. I then investigate the concept of ëmeasure of valueí; for two reasons: first because I regard it as the founding moment of money; secondly because it is this function of money that most inclines Marxist theorists to argue that real money must be a commodity, and not merely that but a product of labour. I next refute a number of confusions between the source and the measure of value. Finally I shall briefly discuss the determination of the magnitude of value, even though this is a complex question. I am, however, forced to embark on such a discussion because it is often argued that the labour theory of value implies a causal sequence from the material content of value to its appearance in price, and that this renders nugatory the value form approach.†

I

What is value?

At first blush value may seem definable as a *relation*, namely that in which a commodity exchanges against other commodities, or against a selected standard commodity such as gold. For many theories of value, namely those which understand exchange relations as reflecting forces acting *on* the said commodities, such a definition is adequate enough. But a theory which traces the exchange relation to a power intrinsic to commodities would find it more useful to define value as the *power* of drawing other commodities in exchange possessed by a commodity in virtue of some feature intrinsic to the commodity.

On the former view exchange value is not distinct from value but on the latter view the value commodities possess is *expressed* in exchange value, which thus serves as its *measure* because a power is only known in its effects.

Classical political economy confused these two views and it took Marx a long time to grasp the need to distinguish value from exchange value. (Although Adam Smith defined value as a power, he should not have done because his own theory of value makes it clear that exchange relations merely reflect forces operative *on* commodities, namely the supposed subjective preference of their possessors to avoid toil and trouble. It is this preference that informs trade and results in exchange values which reflect relative labour times.) Samuel Bailey was the most robust dissenter from mainstream political economy; he insisted on the following definition: ëValue denotes nothing positive or intrinsic, but merely the relation in which two objects stand to each other as exchangeable commoditiesí (*Critical Dissertation...* 4-5). The discussion of intrinsicality on the second page of *Capital*, while keyed to a proposition of Barbonís, is really a response to Baileyís definition. Although Marx says such ëan intrinsic value, i.e. an exchange-value that is inseparably connected with the commodity, inherent to it, seems a contradiction in termsí, given the chaotic appearance of market exchange, and the number, variety and lability of a commodityís ëexchange valuesí, he takes up this challenge; but his results are somewhat inconsistent, I think. {C 1 p. 126 MEW 23 p. 51). What could be argued is that if value is to be more than an exchange ratio reflecting other forces then the presupposition that value is intrinsic to commodities must be *posited* through a demonstration that its conditions of existence are reproduced immanently by the social form of the economy which in some manner systemically secretes such ëvalueí.

Notice that my definition of value as a ëpower of exchangeabilityí does not make any essential reference to what it is that grants commodities this power, nor any theory of the determination of its magnitude. It is a common move as theories develop to supplement the original working definition with a so-called ëreal definitioní embodied in the theoretical framework. For example, pneumonia is no longer defined by it symptoms but by the presence of a certain bacillus. When Legionnaires presented pneumonia symptoms, and the bacillus was not found, instead of saying the theory had been refuted, it was said they were *not* suffering from pneumonia at all. So theoretical connections between value and labour may change our definition. The way I would then deal with the problem cases is that I would say non-products have the *form* of value but are empty of its proper *content*.†They have commodity form but their exchange values are not determined as expressions of a value content.

The derivation of money

Let us now show how Marx infers the necessity of money from the need to show value is objectively present in exchange relations.

The actuality of value cannot be established through the analytical reduction of the extremes of the exchange relation to value as such. Such a move reaches at best an unproven hypothesis: that some law of value *may* be present, that the commodity form may not be empty of determinate content. Nor is this inadequacy of the analytical reduction remedied by direct appeal to the conditions of production of commodities; this fails to establish a common substance to products because the labours referred to are just as heterogeneous as the commodities themselves. As Marx saw, the labour that is presupposed to value has to be taken abstractly. So we cannot appeal from one analytical abstraction (from use value) to another (from useful labour) without once more facing the problem of ëpositing the presuppositioní, of discovering the conditions of existence that ground the actuality of value and abstract labour. Moreover the analytical reduction is itself impossible without assuming a counterfactual, namely that an exchange system without money sets up equivalence relations that are reflexive, symmetrical and transitive. But without money to make visible such a homogeneous value space there could be only an incoherent morass of molecular ëvalueí relations which fail to integrate into a common universe. In such a network transitivity would fail empirically as often as not, and numerous inherent opportunities for arbitrage would always be theoretically present.

These considerations lead me to underscore the importance of Marxís section on the forms of value. If it is said that value is here presupposed and the only thing at issue is to generate its adequate form of appearance, then I reply that Marx surely knew Hegelís adage that ëessence must appearí, together with its corollary: that if it does not do so then it lacks actuality. Money, as the universal equivalent form of value, overcoming the ëdefectsí of the simple and expanded forms of value, is itself essential to the actuality of value (and indirectly to the positing of labour as abstract).[1] But if we remain at the level of *formal* commodity relations *every* commodity could be the starting point for a dialectic leading to its positing as universal equivalent. No single one has anything special about it that could lead other commodities to select it as their preferred equivalent. Yet it is impossible to have more than one universal equivalent, just as there cannot be two Popes. Marx has to introduce an appeal to social practice to accomplish the exclusion of one commodity from others so as to give actuality to the universal equivalent form. While there is no quality uniquely possessed by a single commodity which could lead other commodities to select it as their universal equivalent, *if* such a universal equivalent *were* to be established, it *would* have a relevant unique property: it would be *immediately exchangeable*. In other words the objectivity of such a ëvalue for itselfí appears phenomenally in its immediate exchangeability. Conversely the condition of existence of such ëvalue for itselfí is that there be a commodity that is immediately exchangeable. *Practically*, however, a contingent historical development selected gold as the preferred commodity (p. 180 ff).

A running theme throughout Marxís derivation of money is the *opposition* of money to commodities. Even in the simple form, the ëgerm of moneyí, Marx discerns certain ëpeculiaritiesí: notably that the commodity in equivalent form is present only as ëuse-valueí, i.e. providing the material in which the value of the first commodity is given. Naturally this applies in spades to money; it is the *matter* of gold that incarnates value. Thus gold does not

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[1] For more on this derivation of money see my ëMoney as the Form of Valueí 2003.

have such a manner of expressing its value as do all the other commodities that value themselves in it, *just because* it has been excluded so to serve as universal equivalent. Gold has no price, it *is* price in virtue of the formal role it is given. Implicitly therefore, as a form, money does not itself *have* value, it *is* value as form.

Here Marxís view is defective. He says: ëThe expanded relative expression of value, the endless series of equations, has now become the specific relative form of value of the money commodity.... We have only to read the quotations of a price-list backwards, to find the magnitude of the value of money expressed in all sorts of commodities.í (189) In effect he goes back behind money to the bare *commodity* status of gold, losing the peculiar status of immediate exchangeability it has *as money*. But this overlooks two very interesting circumstances. First of all, the whole point of the form of value is to allow a commodity to express its value in another use-value because it could not express its value in its *own* natural body. But money *does* embody value in its own use-value because money fixes a peculiarity of the equivalent form, namely that its use-value counts as value. It has no need then to *express* its value in some other commodity. As *value-for-itself* what money expresses in its relations with other commodities is its *purchasing power*.

Moreover in *Capital* Marx reaches a startling conclusion, if we remember that he posed as his starting point the elucidation of the conditions of existence for value to be intrinsic to commodities. After showing the necessity of money he states that, without it, commodities stand to each other merely as use values (p. 158, 180); and he concludes that when gold functions as money it is ëfixed as the sole form of value, or, in other words, as the only adequate form of exchange value in the face of all the other commodities, here playing the role of use-values pure and simple.í {p.227; MEW 23 p. 144. Note that ëform of valueí is not here ëWertformí but ëWertgestalltí, referring to the shape in which it is presented .}

So at this extreme point of the development of the value-form its elements fall apart: commodities do not, after all, possess intrinsic value, merely use value, whereas money is ëthe soleí shape of value! But of course these elements cannot really exist as such extremes, but only in *relation* to each other. Commodities are posited as bearers of value insofar as their realisation in money prices reflects this dimension onto them; conversely, value cannot exist autonomously as money because money proves itself only in realising its purchasing power. The contradiction involved in the doubling of the commodity form into commodities and money is provisionally resolved by circulation wherein they continually change places.

The question may be asked why it would not be right to move directly to money after some such analytical reduction of exchange-value to value as Marx apparently carries through at the start. Surely if it is assumed that commodities are values then money can be introduced to *represent* this common ground underlying the visible exchange ratios? The advantage of introducing it is to secure a common measure of value, and the most suitable such measure is a numeraire,a commodity like gold, *representative* of them, but a written *representation* of value may also serve. However this line of thought does not work because it makes no sense to presuppose that an isolated commodity has value. Value has a purely social reality, and it emerges from commodity relations. This means that the universal side of a commodity is not to be found by looking *into* it, but by locating a suitable relation it has to others outside it. Marx shows that the universal aspect of commodities is secured only insofar as they posit it through their common relation to a universal equivalent, namely money. This money form does not *represent* the presupposed ëvalueí of commodities, rather, it *presents* it to them as their universal moment. Money is not a *re*-presentation of something given in commodities, but the only way of making value *present*, i.e. being there [*Dasein*] concretely, rather than as some unreal abstraction. Once value is thus presented explicitly ëfor itselfí (rather than a mere immanence) in money it posits the commodities as values ëin themselvesí, immanently.

The relationship of force and expression flips: instead of money passively expressing the activity of value-positing commodities, money becomes the power socially validating them as ëof worthí. Thus if money does not *have* value, like other commodities, nevertheless it *is* value, the ësole adequate existence [*Dasein*] of valueí, as we saw.

Although gold seems a *representative* commodity, it becomes through its form-determination *antithetical* to commodities, excluded from them so as to present in objective shape what they must *exclude from themselves*, namely their supposed value essence which they cannot bring to light in their own ëstuffí but only in the material of what stands over against them, money. As Marx shows, money must have *concrete* functional relations to commodities so as to present a unitary value dimension to them.

An analogy: the King has powers exclusive to himself so as to bear in his person national sovereignty, not just against other realms, but against the anarchy of his ënatural-borní subjects, on the assumption they cannot be *self-determined*; he presents to them their unity as *other* than they; hence he is not after all merely their representative but their ruler, even though he is King, not by nature, but only because they posit themselves as subjects. In the same way money is sovereign even if originally a simple commodity. It is much more than a *representation* of their unity, just as a King is more than the representation of the country, for which a purely symbolic figure such as ëBritanniaí would suffice; as King he must *act* so as to secure national unity.

A couple of other passages show Marx bringing out the antithesis of commodities & money. Money as such emerges ëindependently, as the absolute existence of exchange-value, in other words the universal commodity.í (MEW 150, C I, p. 234) And: ëAs the individual incarnation of social labour, the independent presence [*Dasein*] of exchange-value, the absolute commodity.í (MEW 152, C I, p. 235; Fowkes puts universal commodity) In the first edition of *Capital* Marx draws a very illuminating analogy to make the strangeness of this relation clear: ëIt is as if alongside and external to lions, tigers, rabbits, and all other actual animals ... there existed also in addition *the animal*, the independent incarnation of the entire animal

Kingdom.í[2] This example is probably a reminiscence of Hegelís point: ë ìAnimal as suchî cannot be pointed out; only a definite animal can ever be pointed out. ìThe animalî does not exist; on the contrary, this expression refers to the universal nature of single animals, and each existing animal is something that is much more concretely determinate, something particularised.í[3] The peculiarity of money is that as the universal commodity it *can* be pointed out. The universal aspect uniting commodities is presupposed to be value, and in money this universal exists apart as ëa thingí beside them. The particularisation of this universal is secured when commodities are given different prices.

Beyond Commodity Money

If money is the independent existence of value, does the bearer of money have to be a commodity? More specifically, a product?

Because of the socially imputed status of ëvalue for itselfí its material bearer is of little consequence. Inconvertible paper is equally effective at serving the money functions. Yet, while on p. 224 Marx allows that in its function as currency the State may replace gold with paper, in the footnote on the next page (p.225 n.55) he insists that in its function as measure, commodity money cannot be replaced, even if it may so function ëideallyí , i.e. in its absence.(p.227) Likewise he argues that money ëas moneyí (as he obscurely puts it), namely means of payment, store of value and world money, must also be commodity money.

Discussion of measure I take up in the next section. Here I note (contrary to Marx) that in its functions as means of payment and store of value, paper is adequate money because such functions are parasitic on those of circulation. Since money never finally ëexitsí from an economy, such money (viz means and store) is fixed ëas moneyí merely temporarily, so such money could be identical with the medium of exchange (abstracting from inflation). (That world money was gold in Marxís day is historically contingent, not conceptually necessary; today the dollar is world money.)

The primary function of gold money is to ëposit the presuppositioní that commodities count as values. This it does in virtue of the *price-form*, not because as a material body it has any such magical powers. So a substitute material may be found in paper, if this is granted forced circulation by the State, and hence acquires the key determination of immediate exchangeability.

I argue that inconvertible paper does not ëstand forí gold, it ëstands in forí gold.[4] What is the difference between these expressions? The name in lights ëstands forí the actor, but the

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[2] (Dragstedt p. 27)

[3] (Enc. para. 24 Addition (1) Hackett p. 56; also cf. para 221.

[4] The significance of this distinction between ístand for ë and ëstand in forí was drawn to my attention by Joan Safran.

understudy ëstands in forí the actor. i.e. assumes the same *actual functions*, not symbolical ones (even if they lack the glamorous shell of ëstar qualityí). The understudy is adequate to the purpose of *presenting* the role, not as a *representation* - more or less inadequate - of the ëstarí.
The mistake then is to think paper is a *representation* of ëreal moneyí, which therefore necessarily is an inadequate substitute for the real thing, whereas it *is* in fact money insofar as it presents adequately value for itself; this it does, not by being a *representative* commodity value, nor by being a *representation of* value, but by playing the role of *presence* of value. It *stands in for* gold functionally, rather than being a representation of gold, standing for it.
Since this function of money is socially posited, it may be ascribed to something which has no value of its own and whose sole use value is precisely to serve as an incarnation of value; if socially accepted as such, this money has immediate exchangeability as much as any commodity money.

The Measure of Value
I approach this in two stages, which I think helps to be clear about value form theory through comparing it with the naturalistic approach shared by most Marxists. So below the first level (1) is naturalism; the second (2) the difference made by value form theory.
1. (i) In physics I distinguish three kinds of measure.
(a) <u>immediate</u> <u>comparative</u> measure. Examples: a beam balance and a ruler. Here the <u>measure</u> shares the same *inherent dimension* with the measured, viz weight and extension. We can do comparisons (greater, lesser, equal) and we can set up a standard gram and metre to serve as numeraire. So immediate extensive comparison (with the standard gram or metre) is possible because both things (measure and measured) are in the same dimension and this property is something they ëhaveí <u>prior</u> to the comparison. Notice that the inherent dimension is not itself measure but what offers itself to be measured through an external comparison.
(b) <u>indirect</u> measure. Examples: a spring balance and a mercury thermometer. Here the measurable is extension, which is completely foreign to what is supposed to be measured, viz a force and the vibration of molecules. We have a theory of determination which allows us to translate backwards. The cases are different in that the thermometer is a very indirect measure and the ërealí measurable almost unobservable. The spring balance is more direct, we equate different types of force, and we can get at weight directly as in the last para.
(c) Some dimensions are ërock bottomí e.g. extension and mass (pace Einstein) but others are complex e.g. weight and work. In these latter cases, if the theory is correct we can measure by <u>calculation</u>. If we know m and G we have weight. (In practice weight is easier to get at so we usually infer in the converse sense.) Work is a complex mix of force moving across distance in a time; and if we could measure these three we can calculate the magnitude of work units. {Case (c) is the inverse of case (b) of course.}

(ii) Now suppose we could apply all this to value defined as power of exchange possessed by commodities.
(a) There is an immediate measure of commodity value in money (here it probably has to be commodity money, with paper an inferior substitute). This is distinct from valueís determinants of course (which Marx unhappily calls ëimmanent measureí).
(b) we have a theory which determines the immanent magnitude of value by that of labour; so it can be measured by calculation.
(c) the relevant dimension of labour is assumed to be time.
(d) combining (c) via (b) with (a) it may be concluded that money is an indirect external measure of labour. Interesting for all this is Marxís polemic against Bailey in tsv. Bailey insisted that only relative measure made sense because taken in isolation a commodity has no value. Marxís reply was that, nonetheless, there must be a common value dimension inhabited by the commodities that allowed them to be brought into relation. When Bailey said there is no such thing as ëdistantí but only ëA is distant from Bí and v.v., Marx said it is presupposed that A and B are points in space so there is an absolute (Newtonian?) space underlying the relation; a table is not distant from a colour. Marx seems to model value on this naturalistic paradigm, here at least.
2. Now letís turn to the impact of value form theory on the above scheme.
Money is not simply the provision of a standard of comparison for commodities already inserted in the value dimension; it constitutes the value dimension. At first sight one may think that it is exchange that constitutes the value dimension, just as gravity brings masses into a weight dimension. The commodity has no value in isolation but when acted upon by the market it acquires this property (power of drawing other commodities in exchange) in proportion to its socially necessary labour time and this is expressed in its relations with other commodities according to the strict logic of equivalence. The problem with this is not simply the lack of a numeraire, which would be necessary in practice to iron out arbitrage. The problem is ontological; discrete exchanges set up only ëmoleculari spaces of value, which have no necessary relation to each other. There would be a chaotic jumble of transient exchange ëvaluesí but no homogeneous value space.
Compare the innovation of pictorial perspective. Prior to this the picture collapsed real space to a plane with all elements on a par regardless of distance. But with perspective the frame is organised around a single point of view outside the picture, yet essential to making sense of the relations of juxtaposition within the picture; apparently adjacent figures are more or less ëdistantí. From what? From the point of origin which is not in the picture but has to be postulated to make the picture coherently represents ëdepthí. So one sees why money need not be in the value dimension itself; it *provides* the value dimension.
It is difficult but necessary to grasp the inversion of the ënaturalistic paradigm required by the ëpurely sociali determination of value forms. In a naturalistic paradigm measure is a human

intervention into already constituted dimensions and relations of determination, whether through immediate comparison or an indirect one. But in the case of the purely social substance, value, it is the social practice of commensuration in exchange that posits what is presupposed in such measure, a homogeneous value dimension. Money serves at the same time as incarnation of the measurable (value) and standard of the measure (one dollar). In its measuring function, money acts as <u>origin</u> of the value dimension itself.

The unity of commodities as values is secured only in their common relation to money. Money is not therefore *a* measure of value, it *is* the form of value *as measure*. Only through this coordination are commodities *situated* in a value dimension, and hence only through the mediation of money may such social aspects of commodities as their representation of abstract socially necessary labour be secured. It is not that the commodities themselves have a common value dimension subsequently given a metric by money. It is our practice of pricing commodities that creates this value dimension ideally. Social practice ëposits the presuppositioní.

As we have seen, this is because money as their universal concept exists alongside them as the shape of value as such, the ëadequate existence of valueí (Marx). Money makes value a measurable, as well as providing a standard of measure. Because money as the universal concept stand opposed to particular commodities, it need not itself *be* a particular commodity in order to serve as a measure, even though prior to more developed forms it perforce must be incarnated in metal.

Now Marx himself argued that in its function as measure money must be a product (192). Why did Marx go astray? Because he had in mind only that form of measure which consists in immediate comparative measure between things sharing the same dimension. Marx clearly thought that if money was a product then it had a value determined by its labour time and other commodities likewise. Therefore as both measure and measured share these determinants of value then comparative immediate measure of one in the other is feasible. However, it is not necessary to measure that such immediate comparison obtains. We have seen that indirect measure is possible if there is a relation between what we want to measure and some other measurable; insofar as social practice so acts as to make paper a function of the value determinant such a measure is adequate to the relative values of commodities, just as a spring balance measures weight even though springs are not heavy. If we are looking for something measuring value defined as a power of exchange then something which *is* just that, namely that which has immediate exchangeability, is a perfect form of measure; and if fiat money has such a social acceptance then it is a perfect measure regardless of the fact it does not itself embody labour. Insofar as such money validates commodities and hence labour, what other measure is required?

II

Labour, Value and Exchange-Value

In the first part of this paper, in discussing the definition and, measure of value, I have not found it necessary to develop a theory of the source and magnitude of value. In the second part I now address those issues and take for granted a labour theory of value on these questions. (It is true that it is a necessary condition of exchange that commodities be ëuse values for othersí; but, like Marx, I assume such phenomena as ëdemand managementí are marginal, and that the conditions of production are decisive.) But I stress that the claim money is necessary to the actuality of value is true regardless of what theory of the *source* of value we hold. Labour I take to be the *source* of value, or what is presented in value terms, and what determines its *magnitude*, but it is *not itself value.*

Since it is not often understood that Marx distinguished value from exchange value on the one hand, and labour on the other, let us examine a late text in which this is made very clear, namely the notes ëOn Wagnerí (1879-80). Wagner said that Marx looks for a common social substance in exchange value and finds it is labour.†Marx protests as follows:

ëNowhere do I speak of ìthe common social substance of exchange-valueî; I rather say that exchange-values ... represent something *common to them* [commodities], which ìis quite independent of their use-valuesî (i.e. here their natural form), namely ì*value*î. This is what I write [in *Capital* I p. 128]: ìTherefore, the common substance [*Gemeinsame*] that manifests itself in the exchange-value of commodities, whenever they are exchanged, is *their value*.î í (MECW 24 p. 533)

Marx is somewhat disingenuous in that the passage he cites from *Capital* appears first in the second edition.[5] Not only does the first edition fail to make the point clear, there are two footnotes saying value is just an abbreviation of exchange value. Thus if Wagner worked from the first edition he would have some excuse; this would be still more the case if he was relying on Marxís 1859 *Contribution to the Critique....*

The lesson of this passage is that Marx has a 3-place concept of value: the source of value is labour, but value must express itself in exchange value. Labour then does not *directly* express itself in exchange-value, although it is certainly a condition of the category of abstract labour having sense that it is indirectly measurable in money.

If Marx had thought that value and labour were synonyms, then Wagnerís reading and his own text would amount to the same thing. So Marxís irritation shows clearly he wishes to distinguish value and labour, the former, not the latter, is what underlies exchange-value while the latter is the source of value and determines the magnitude measured in money. However, if exchange ratios are affected by other influences then this measure may *misrepresent* value; furthermore as value determinations become more complex it must follow that its measure becomes *re*-presented at each level of concretisation.

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[5] Note that the whole of p. 128 from ëAs use values...í down to ëform of appearance, of valueí is absent from the first edition.

Confusions of SOURCE AND MEASURE OF VALUE
I have said that the only adequate measure of value is money; yet it is often claimed that value is measured in labour-time. One reason why the issues became confused was because of Ricardoís influence. He confused the search for the source of value with the search for a measure of value; so the measure of the source was illegitimately transferred to that of the result. Samuel Bailey has an excellent chapter in his polemical treatise against Ricardo and co. on precisely this issue. (CD... Ch X ëOn the difference between a measure and a cause of valueí.[6] He is also good here on the ambiguity of the term ëdetermineí; 171-2) Insofar as Marx is concerned, another reason for confusion was his identification of labour as the ë*substance*í of value. This is not a very usual formulation; normally he says labour *determines* the magnitude of value. But talk of substance encourages the view that its measure can be taken to be that of which it is the substance (just as the weight of the marble is the weight of the statue). Still stronger formulations by Marxists assert that value *is* labour, even though Marx himself explicitly denied this. Perhaps the most interesting line here is that although value and labour are two different things they are linked in the core of Marxís theory through a ëreal definitioní: that value *is* objectified labour just as water *is* H2O. But even were this to be accepted the dimensional distinction is still essential: labour is an activity taking time and value is a power measured in money. Let us support this by looking at the just-mentioned analogy. Water appears as an homogeneous, continuous, infinitely divisible fluid appropriately measured by volume (e.g. litres). H2O is a discrete, discontinuous aggregate of molecules measured by number. Given the same temperature and pressure, two samples of water that have the same volume will be ëmade ofí the same number of molecules. But volume and number remain utterly different measures. We may - very artificially - talk of a litre of H2O; and we may equally artificially talk of a dollarís worth of objectified labour. But this would be an indirect measure. The immediate measure of labour is time and that of value is money.
One difficulty here is that labour does not transform uniformly into dollars; but this problem I will consider in the final section on the determination of the magnitude of value. If it *did* uniformly translate then of course we could say relative labour times are a measure of relative values, once again employing an indirect measure based on the theoretical assumption about how the magnitude of value is determined. But strictly speaking that magnitude has its *own* measure which is money. Note that if value *is* measured in labour time then the substantive thesis that the magnitude of value is determined by socially necessary labour time reduces to the uninformative tautology: labour time is determined by labour time. It is not unimportant

[6] In our own day Geert Reuten has done the same, and argued that Ricardian readings of Marx are very prevalent and repeat the old error. (Ref.)

therefore that once Marx develops the price form he invariably gives values in amounts of money and never in labour time. Throughout all three volumes value is given in pounds, shillings and pence.[7]

The crucial distinction between the social determination of value measure and the naturalistic reduction is illustrated by the following imaginary case. Let there be commodity money. Let all productivity be doubled; and let half the workforce be laid off: in the new situation the same number of products are sold as before therefore. Question: what is the value of the output? On a value-form perspective the value is the same as before because prices are unchanged and the aggregate price is unchanged. From a naturalistic perspective which treats value as if it *were* labour, the aggregate value has halved because half as much labour is now used as before. But this labour total is meaningless until it is compared with some other amount of labour.[8] The idea that commodities possess an ëabsoluteí value is an illusion: if we know a commodity took six hours to produce we have no notion of how valuable it is until we set this *in relation* to the socially necessary labour times of other products. (Likewise the self-reference involved in measuring the rate of accumulation of capital by an increase in money does not depend on the idea of an absolute measure of value because in a ratio the notional metric cancels out.)

Bailey correctly argues this against Ricardo (CD... 153-55) and in a later place (168-9) raises another interesting point: if value is, or is expressed in, the relation of one commodity to another, then aggregation is, in any event, impossible. This is because the measure of the aggregate would have to be stated in terms of a selected commodity money, which, itself being part of the aggregate, needs must *be worth itself*. On a relational view of value this makes no sense. Marx of course says that a commodity cannot give its own measure: the expression x of A = x of A he says is not a form of *value* but the self-identity of the *use-value*. But Marx goes further than Bailey. In a way Bailey has not thought through rigorously his own insight into the form of value.†If the value of a commodity exists only in *its relation to* another commodity, then he should have seen that this means the second commodity appears here not as a value but as a use-value. As Marx stresses, the value of A is expressed in the *body* of B, not its value. Likewise when money is developed it measures value *in its body* e.g. so many ounces of gold. The twist is this: what all other commodities do *in practice* (not in the numerical conjurations of the theorist) is very ëpeculiarí in that they declare that money in its body counts as value. Bailey has not seen that money is more than a comparator relating commodities but counts as the value substance, it just IS value. So the Baileyite objection that aggregation implies an impossibility, namely that the measure measures itself, is here

[7] This has been pointed out by Fred Moseley, who also draws attention to the relevance of this for contextualising the transformation procedure.

[8] Cf. the inadequate comments by Engels made in his Supplement to C3; 1029-30.

circumvented since the self-identity ë2 ounces of gold = 2 ounces of goldí passes the test failed by other commodities. As use-value, gold is also value; value appears in it as an absolute singularity, a point of origin of the whole value system that *relates* commodities to each other as value just because it is self-related value. Of course this is not a natural fact about gold but a consequence of other commodities reflecting their value in it, thereby giving themselves a form capable of positing the presupposition that they *are* values in the first place.[9]

The most egregious confusion of source and measure is that perpetrated by those who advocate *labour money* on the grounds that the measure of the source is the only accurate measure of the result. This is an artisanal utopia designed to secure independent production against the predatory merchant class. It is worth elucidating the fallacy of labour money. There are two possibilities: either the money circulates or it does not. In the latter case there is a warehouse at which the front door receives goods and issues the labour equivalent; at the back door the labour money exchanges for goods priced in it. What will happen when a carpenter arrives with a table which he claims took 20 hours to build? The warehouse may say ëwe have other people who can do it in ten; you will have to learn to do it also because we cannot waste societyís labour resources through such inefficiency as yoursí; or they might say ëthe warehouse is full of tables, we want you to go and make chairsí. In effect the warehouse would have to take on the function of a national planning office and the utopia of the independent artisan vanishes. In the other case, in which money circulates, the carpenter takes the table to a shop-keeper who says ëI don't care if it took you 20 hours, I know guys who can make it in ten, so Iíll give you a ten hour note - take it or leave ití; or he may say ëI have lots of tables so Iíll only buy if you takes an 8 hour note; but Iím real short of chairs - Iíll pay double your time for a set of fourí. The upshot is we have a market economy allocating labour via price in which money functions just as it does now regardless of denominated labour hours, the link between hours and money is broken. Once again the independent artisan vanishes.

I believe Marxís exposition is confusing because two levels of analysis are carried out at the same time: the investigation of form (of value) and that of the determination of value magnitudes. But priority should have been accorded to form; only given the value form can a labour theory of value determination later be addressed. One place (C 188 + TSV 132-3) where Marx conflates the determination of the magnitude of value with that of giving a measure is when he speaks of an ëimmanent measureí denominated in labour time (contrasting with the ëexternalí measure in money). However, strictly speaking, this makes no sense because values are always determined by the *relation* of labour times to each other, so

[9] In Hegelian jargon this is ëabsolute relationí: value just IS the reflection of each in the other without the need to presume some substrate that each has independently.[?]

16 hours, for example, is not any sort of measure of value until we know how it compares with other labour times, both those in the same branch and those in other branches. But we do not know how actual labour time translates into socially necessary labour time until after the commensuration through the value-form is effected, as KM himself points out in his footnote on labour money (on which see above).
In speaking of ëimmanent measureí (rather than immanent determinant) Marx introduces a categorial confusion between the source and the measure of value.

On the ëProductioní of Value
Before discussing the determination of the magnitude of value in a value form theory perspective we must clear out of the way a prevalent conception of determination based on the notion of ëproductioní with all its associated physicalist metaphors.[10] It is said that just as concrete labour produces use value so abstract labour produces value.[chk KM] I think this way of thinking is entirely unhelpful. Value is not a material thing so it cannot be produced in the ordinary way. The commodity is produced by labour; then when it is validated through sale as a bearer of value the same labour objectified in it counts as abstract. But there are not two different labours and two distinct products; there is one labour and one product but above this *material* fact an ëidealí fact is posited, namely that the product is socially cognized as value and its source cognized as abstract labour. Insofar as the very aim of production was to achieve valorisation one could prioritise conceptually abstract labour, but the movement from this to its conceptual correlate, value, is not an activity of production but an objective logical movement: that of ëpositingí value. (ëPositingí I take to be a logical analogue of ëproducingí.)
The paradigm of production here involves misconceiving abstract labour as a quasi-natural force which literally ëcrystallisesí in the product as a quasi-physical attribute of it. Associated with this view is a conservation principle of course.
Such metaphors must be rejected if taken more seriously than literary figures.
Another very misleading metaphor is that of ëembodied labourí. This one derives from a mistranslation of the German term ë*Darstellung*í. This means ëpresentationí, ërepresentationí, ëexhibitioní, but *not* ëembodimentí (as it is translated in the heading to ch. 1 sec 2 e.g.). Clearly something is ëthereí, labour is socially presented through the mediation of the commodity form, but the physicalist connotation of ëembodimentí must be dropped.
A term which Marx does employ is ëobjectifiedí. This term, with its clear relation to a subject over against which something stands, is more interesting. At the level of use value it would not be too outrageous to speak of the product as an objectification of human labour, or even of the labourer, in that the result of the activity is a visible proof of its success, and a confirmation of the status of the agent as a competent producer. Nonetheless, no matter how

[10] GR 1993

close the logical connection between the two sides, the product is not literally a determination of labour itself. Now, what of the claim that a good ëhas value only because abstract labour is objectifiedí in it (129). In a sense I am more inclined to accept this result than the former; this is because here we have in play socially constituted forms. Labour is not literally abstract but is posited as such by the practice of exchange, the commodity is posited as a value likewise. What is the difference between them? Labour is an activity of a subject, albeit here cognized abstractly, and posits value as objectivity, indeed in the case of money value appears as a thing.†But the objectivity of value is no material stuff, it is the objective social recognition of the result of labour qua result, not qua useful article. So in a sense value just is what is posited as its objectivity by abstract labour.

Be that as it may, all paradigms that treat value as a sort of product are misleading. It follows that the determination of value magnitudes cannot be reduced to a causal consequence of actual times of production; it is a matter of what informs the social recognition of the product as bearer of a certain value. Whether value is a relation or a power, it is not materially produced. commodities are produced and then socially cognized in the value form.†(In a different sense of ëproduceí one can of course speak of capital reproducing the value form through its social effectivity.)

An interesting case where the connection between actual labour time and socially necessary labour time is completely broken occurs at that level of concretion where we move beyond production to reproduction. Marx says: in this case what is socially necessary is now determined ënot by the labour contained in it, or by the labour time in which is is produced, but rather by the labour time in which it can be produced, or the labour time necessary for reproduction. By this means the individual capital is in reality only placed within the conditions of capital as such, although it seems as if the original law were overturned. *Necessary* labour time as determined by the movement of capital itself; but only in this way is it posited.í (*Grundrisse* 657) What is crucial here is that competition establishes a market price based on reproduction time and this price then determines what labour counts as necessary for any such product regardless of that from which it actually sprang.

This inversion of the ëoriginal lawí (i.e. that in which the labour time of production determines price) becomes still more marked with the ëpositing of a general rate of profití which determines the distribution of capitals among different branches. Now ëall determinants appear in a position which is the *inverse* of their position in capital in general. There price determined by labour; here labour determined by price.í (*Grundrisse* 657)[11] It is not fully clear what Marx means by ëpriceí(ëproduction priceí seems to be meant in context) but this statement supports the view that since value is fully determined only when ëthe movement of capital itselfí has brought into play all necessary moments of it, production price is the

[11] Mario Robles drew my attention to this passage and its significance.

finished form of value at the level of concretion of the competition of real capitals. Consequently ëprice determines labourí I interpret as meaning that what counts as socially necessary is no longer an ëabsoluteí given labour time, nor even that reproduction time which is normal within a branch, but that time relative to the productive power of the labours in different branches. Those branches which are more labour intensive have ëwastedí social labour, so to speak, just as much as those less efficient firms within a branch. This is signalled by the formation of prices of production. I shall develop this idea in the next section.

The Magnitude of Value

So far we have shown that money is the only measure of value because it has immediate exchangeability and is therefore the essential referent for measuring any putative value intrinsic to commodities. Moreover money is the condition of such a value to obtain, insofar as its sets up the form of universal equivalent and therewith provides a framework wherein commodities may be commensurated. The question to be considered in this final section is the elucidation of the determinant of the magnitude of value that makes itself available for measure indirectly in its result.

Once the force of the value abstraction takes hold of products it homogenises the concrete labours from which they issue, such that they count 1) only as abstractions of themselves 2) only as quantities of time. However the question is more complicated. It is undoubtedly true that at the root of value magnitudes we find something given to the value form prior to its being formed as value, namely the actual (concrete) labour expenditures. On the other hand it is equally true that such times are thoroughly transformed and translated into ideal magnitudes of socially imputed labour times as a result of the form determination of material production by that of the system of value forms, finally of capitalist competition.

If value is not ëproducedí materially, then the production of a commodity is not equivalent to producing its value. This allows value to be *redetermined* through systemic causality. If value is presented in the form of value it must be re-presented at each level of concretion. In the case of the formation of a uniform rate of profit I shall draw on such a notion to avoid the counter-intuitive picture of a ësubstanceí conserved while being moved from one site to another as a result of the constitution of prices of production.

I proceed first by looking at the ëeasyí case, namely the intra-branch constitution of socially necessary labour time in ëdirect pricesí. Then I sketch a new way of reading the relation of labour to prices of production.

Everyone notices that the value of an individual commodity has little to do with the time of its production. But the full implications of this are rarely drawn out. Let us first list some of the reasons for the failure of labour time to appear in linear fashion in the value of the product. First of all the enterprise may be carrying an abnormal number of ëlazyí (better ërecalcitrantí) workers whose labours must be discounted such that N hours of actual labour count the same

as N-X socially necessary hours of labour; secondly the enterprise may be using outdated technique such that even willing labourers produce fewer items that the same work force could produce in a standard factory, once again these actual labours have to be discounted; thirdly an abrupt change in production methods may lower the time to reproduce such commodities below that of stocks still existent, again these are devalorised, the effect is the same as that of the previous case. (Moreover, when inter-branch comparison is brought to bear the reduction of skilled labour to unskilled labour poses much discussed problems.)
The lesson of such cases is that value is systemically determined in such a manner that a gap appears between actual labour time and socially necessary labour time. Even these simple cases show that the naturalistic linear causal sequence does not apply (the weight of a product does not depend on the changing weights of others, but its value is so related to the conditions of production of other products). It is true the actual labour times are a given context for the formation of socially necessary labour time but the *form* of value is such that what counts *socially* is distinct from the actual times.
Money is the *indirect* measure of abstract labour. But for a value form approach the magnitude of value cannot be determined by a natural fact about labour but only insofar as the form of capitalist competition itself recognises labour as counting abstractly and as measured by time. For example capitalists will not allow individual capitals to claim time spent by lazy workers as a value source. Only socially necessary labour time counts and wasted labour does not. In this sense I accept a theory of determination of the magnitude of value by labour time only under the condition that the labour time counts only insofar as it is systemically determined as necessary. Nonetheless, insofar as I accept labour as the sole source of value (that out of which capital creates value) it follows that purely *market* phenomena introduce a distinction between price and value, or since value is always expressed as a price, between a price that reflects an essential form of value and prices subject to contingencies arising outside the form of capitalist *production* itself.
At what point does this systemic determination of value become effective? There is some confusion over this because Marx unwisely treats the determinant of value in the context of the forms of simple circulation; he should have postponed the issue until the turn to production is situated in the context of the capital relation. As it stands Marxís exposition gives rise to the mistaken view that the value form, and such associated categories as abstract labour, result from the abstraction carried through in exchange alone, as if production were a purely asocial material process. Once production is understood to be capitalist production such a dichotomy of production and exchange may be seen to be inadequate. Capitalist production is itself value formed. The means of production already have a value form (so-called ëconstant capitalí); labour appears as wage labour. i.e. labour systematically alienated from the immediate producer so as to ensure the valorisation of capital. The circuit of capital is one of *transformation* of capital, even where in its productive phase it inheres in a complex

of use-value processes; this means in particular that abstract labour is already counted as abstract in production, not merely when it is reified in the commodity.

Now let us turn to the determination of prices of production. In my view the orthodox reading of this issue again involves an unworkable dichotomy.†It is said that value is the result of socially necessary labour, and then a quite distinct moment supervenes - that of its redistribution from one site to another as a result of competition, achieved through the reassigning of prices. What is wrong with this is that once again production is not fully conceptualised as *capitalist* production. If value is not finally socially cognized except under the *full conditions* of capitalist production, this means that the distinction between Volume I and Volume III cannot mean that between production and distribution of value.

When we look at capitalist production we find there are other necessities inherent to it beside the pressure on capital to economise immediate labour as a result of competition between comparable enterprises. There is also the system of allocation of capitals between branches. This should not be understood as a secondary feature, that is competition for capital between branches, and hence the formation of a uniform rate of profit, as if the issue were merely a distributional one. In reality it is a question of the deep structure of capitalist production. There is the addition of new labour, supposed to result in new value, but there is also the so-called ëtransferí of constant capital to the final commodity through its productive consumption. The workers do both things at the same time since their labour is not pure activity but work *on* materials *with* instruments of production, both getting used up. At this level of concretion we have to consider *all* the determinations of the production of profit not just immediate labour time. Insofar as labour transfers the mass of constant capital its productivity *includes* its power of shifting ëcí to the final product such that it is renewed rather than lost along with its consumption. Now some labours are ëmore equal than othersí and count as multiples of other labours, just in proportion to their effectivity at resurrecting ëcí.

So just as intra-branch competition leads to labour time being recalculated according to the socially necessary labour time so inter-branch competition leads to socially necessary labour time being recalculated according to average organic composition. Those branches with low organic composition, e.g., effectively use social labour inefficiently. In my view there is a parallel here to the lazy worker case. In both, some labours count for less or more than others. (One might even speak of a socially necessary power of consuming capital.) Time must therefore be discounted accordingly; some hours of labour ëproduceí more or less ëvalueí (here that returned in production price) than others.

So I prefer to think of price of production as a more ëfinished form of valueí than ëdirectí price, rather than as the result of a *redistribution* of value. The connection of price with labour time is still present but only indirectly insofar as, just as in Volume I with capital-in-general, *actual* times are systematically remeasured according to social determinations, here the form of many capitals.

For those familiar with the time paradoxes of relativity theory, this may provide a helpful analogy. There is no such thing as absolute time and space. Processes have a homogeneous time dimension only relative to an inertial frame of reference. If a space ship leaves earth at a high speed the time taken to boil an egg in the spaceship will take the usual three or four minutes to the cook; but to an observer located on the earth it will take longer. A round trip may take the spaceman ten years yet he may arrive back twenty years after he set off.

By analogy the time of production is not absolute; it is always measured in the context of a common frame of reference. The comparison of firms in a frame of reference of the branch remeasures actual times so as to discount that of lazy workers.†The comparison of the different frames of reference predicated on different organic composition again means that some times are more equal than others. Labour time in capital intensive industries is ëspeeded upí relative to average and *counts for more* while labour time in labour intensive industries *counts for less* because the hours pass more ëslowlyí.[12] Of course it might be argued that my ënumbersí are the same as those of the usual approach. But I think it is useful to think carefully about the conceptual meanings they have. My approach stresses the importance of the social determination of value, albeit in the context of technical givens, and it avoids the counter-intuitive idea of a ësubstanceí that is ëtransferredí after being ëproducedí in a different site, and it attempts to give more weight to categories of production than distribution. (Of course I grant money is distributed to landlords and financiers, but I do not see one capitalist paying over part of his profit to another; this a a very ënotionalí transfer!). In my view it is wrong to situate the formation of a uniform rate of profit as a way of *distributing* value; it is a way of redetermining value when the level of capital in general is sublated in competition.

Conclusion

This paper has presented a value-form interpretation of money. It includes a version of the labour theory of value, but it inverts the usual understanding of the relation between form and matter. Instead of understanding so-called ëlabour valuesí as ontologically prior to money prices, the position adopted here is that order and regularity in the interrelations of units of capitalist production is possible only because there *is* a form of value, namely money, as a precondition for it. Only *once* this form of commensurating products obtains is there any meaning to the supposition of a law of value rooted in labour and appearing as price.

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[12] So the measure of labour is still time even under the hegemony of the value-form determinations. In this respect I disagree with GR [ref?]that the measure of abstract labour is money; for me its measure is time but these times are recalibrated according to such systemic determination as social necessity.

Nor is this form a static scaffolding for the registration of labour determinations in socially recognisable form, rather form has its own determinacy given that capitalists aim at money profit. In this light it has been argued that form-determinations structure such notions as socially necessary labour time, deciding to what degree actual labour times are socially validated, or even replaced by socially imputed amounts of labour.

Central to the whole issue is the role of money as measure of value. Only through the social practice of commensuration of commodities in a universal equivalent is the dimension of value given actual unity, and therewith allows the cognition of labour as abstract, and only if this is given can the question of how what is measured is determined as a definite magnitude even be raised. Once it is understood value is necessarily measured in money then ëprices of productioní may be interpreted as more ëfinishedí measures of value than ëdirect pricesí albeit that in this form the thesis that the source of value is labour becomes obscured by the refusal of capital to treat all labours as equal when indirectly recalibrating labour times in this form.

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