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DIFFERENTIAL LABOUR AND COMPETITIVE ADVANTAGE: EMBEDDING RESOURCE-BASED THEORY WITHIN MARX'S LABOUR THEORY OF VALUE

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DIFFERENTIAL LABOUR AND COMPETITIVE ADVANTAGE: EMBEDDING RESOURCE-BASED THEORY WITHIN MARX'S LABOUR THEORY OF VALUE

This paper argues that the resource-based view of the firm (RBV) assumes a labour theory of value creation. The most developed form of the labour theory of value is arguably that set out by Marx in Capital. Using the Circuit of Capital as an organising framework, the paper integrates RBV and Marx's value theory. Marx provides us with a macroeconomic explanation of value and surplus value creation, whereas RBV enables us to understand fine-grained differences in performance between competing firms. The paper divides the living labour involved in production into four categories. These categories are then used to explore issues of resource-based advantage, profit rate equalisation between competing firms, the 'moral depreciation' of individual capitals, and how these processes can be delayed.

Introduction

The resource-based view of the firm (RBV) contends that resources that are valuable, rare, imperfectly imitable, and imperfectly substitutable are an organisation's main source of sustainable competitive advantage (Wernerfelt, 1984; Barney, 1991; Peteraf, 1993). Valuable resources that are unique, or that are difficult to imitate generate economic *rents*. Rents may be retained by, or returned to, the resource suppliers, but if the rents are captured by the firm they become the source of super-normal (above average) profits. The major contribution of RBV has been the exploration of the nature of these heterogeneous resource endowments (Dierickx and Cool, 1989; Mahoney and Pandian, 1992; Amit and Schoemaker, 1993).

Proponents of RBV generally argue that human or 'cultural' resources are the sources of above normal returns, not purchasable and tradable physical assets (Barney, 1986a; Castanias and Helfat, 1991). This is because physical inputs like computers or machinery can usually be purchased by competing firms, thus any advantage from buying a better piece of equipment is usually rapidly eroded, as competing firms are free to acquire the same equipment. In contrast, valuable human resources such as specially skilled or talented employees, or resources that take the form of embedded tacit routines, tend to be difficult to replicate and can therefore enable the firm possessing these resources to *sustain* higher levels of profit.

In most firms both the *performance* of valuable behaviours within the routines, social networks, and cultures of the organisation (Nelson and Winter, 1982), and the *direction* and deployment of these resources with other inputs, are activities undertaken by hired employees, be they executives, middle managers, or shop-floor workers. This implies that sustained profitability derives from the actions of various types of labour working on and with other inert inputs (Lado and Wilson, 1994; Pfeffer, 1995). Thus, within resource-based theorising the "resources" that produce rents are more likely to be human resources, rather than physical or inert resources.

RBV recognises that resources can be built or bought. The deliberate creation of resources would also be a managerial activity, and the processes of resource creation executives enact have been described as *dynamic capabilities* (Teece et al, 1997). Dynamic capabilities can create resources either through artful procurement, or artful deployment of inert and human resources.

Comparing RBV and Marx's value theory

There are strong parallels between RBV reasoning and Marx's economics (Fine and Harris, 1979). Marx adopts a "human resource" based theory of value and surplus value. His theory represents an advanced form of the labour theory of value developed by prior "classical" economists, notably Smith, Mill, and Ricardo. In line with Marx's theory, RBV explicitly acknowledges that the value created by a particular resource is not fully returned to the resource provider (Rumelt, 1984; Peteraf, 1993). The rents produced by the special resource have to be captured by the firm, not the resource owner or supplier, if super-normal profits are to accrue to the firm. Thus, RBV separates the creation of value from the capture of value: rents only lead to super-normal profits if they can be appropriated from the resource provider (Bowman and Ambrosini, 2000). Marx's theory of value and profit also clearly distinguishes between value creation and value capture. It is therefore fundamentally congruent with this basic tenet of RBV.

But there are further similarities between Marx's argument and RBV. They both argue that super-profits result from the firm's possession of unique and valuable resources, and that the rent-generating or surplus-generating capacity of these resources is likely to be temporary:

> "a manufacturer who employs a new invention before it becomes generally used, undersells his competitors, and yet sells his commodity above its individual value, that is realises the specifically higher productiveness of the labour he employs as surplus labour. He thus secures a surplus profit." (Marx, 1954, *III*: 238)

Both theories also recognise that the bargaining power of resource suppliers is a critical determinant of firm profitability. Marx argues that it is the capitalist's control over access to specific inanimate resources (the "means of production") that enables the exploitation of labour to take place. Put another way, if individuals are able to earn a living by selling the *products* of their labour directly, rather than through selling their labour-*power*, then they have no need to contract with owners of capital. Exploitation can only take place where this alternative is denied the worker, and this is primarily the result of developments in what Marx terms the "forces of production" (eg economies of scale).

According to RBV, the physical assets that are the precursor of this relationship between capitalist and worker are unlikely to be the source of super-normal profits. As argued earlier, these assets, which are usually tradable and readily available, are likely to be *common* across competing firms. But the problem is they are *expensive*. They are expensive but not unique, and hence they do not qualify as *resources*, in resource-based thinking. Access to these resources is rationed because of their costs of production, not because of their inherent uniqueness. If these assets became very cheap, then efficient scale production could be undertaken by individuals and self-organised groups without the involvement of the capitalist. So capital, in its money form, is homogeneous, therefore, it cannot pass the test of a resource in RBV. However, capital enables its owner to capture surplus value as it is required in all scale-sensitive areas of production. If the required physical assets to produce, for example, steel, cars, or electricity were inexpensive, if they were within the reach of most people, then capital would have to retreat from these industries.

So, in this sense, Marx's theory is also a resource-based theory. In his argument, the scarce resource is money capital. When this resource is rendered redundant because it is not required for socially efficient production, the people involved in creating new value are able to capture the full fruits of their labour. Both theories deal with the phenomenon of entry barriers, but there is a crucial distinction between them. In Marx's economics, the barrier to entry is primarily money capital: a sufficient sum of money must be advanced before socially

efficient production can begin. This is, then, a *quantitative* barrier to entry. In RBV, barriers to entry, or barriers to imitation exist which permit the firm to earn rents for sustained periods of time. But here the barriers are typically *qualitative*: they consist of subtle differences in work process, reputations, and personal relationships that constitute the firm's rent-generating resources. Although we would expect that most resources in the firm would be forms of labour in action, RBV also recognises that inert inputs into the productive process can also be resources (eg special equipment, a brand). However, these resources are intermediate use values involved in the productive process that are themselves the products of labour in action. Either the intermediate inert use value has been artfully *procured*, or it has been *created* by people inside the firm. If artful procurement creates resources for the firm this must mean that the *value* of the resource in its current deployment is greater than the price that was originally paid for it.

There would therefore appear to be sufficient common ground between RBV and Marx's labour theory of value and surplus value to warrant an attempt at integration. Specifically, Marx provides us with a coherent theory of value and surplus value at a macroeconomic level, and, within this theoretical umbrella, RBV focuses our attention at the level of the firm (or individual capital) on the particular resources required to achieve temporary or sustained levels of super-normal profits.

Combining Marx's economics with the fine-grained insights into variations in firm-level profitability provided by RBV enables us to develop a categorisation of types of labour. This can then be used to explain changes in firm profitability, and strategies employed to counter falling profitability, specifically how firms counter the "moral depreciation" of capital.

The basic arguments of RBV have been set out above, and are likely to be well understood as they are part of a current debate (Priem and Butler, 2001). However, Marx's argument may be less familiar, so we shall attempt to summarise briefly the aspects of his work most relevant to RBV. This can be achieved through an understanding of the *circuit of capital*. This explains capital as a *process*, and it will provide the conceptual underpinning for the paper.

Marx's "Circuit of Capital"

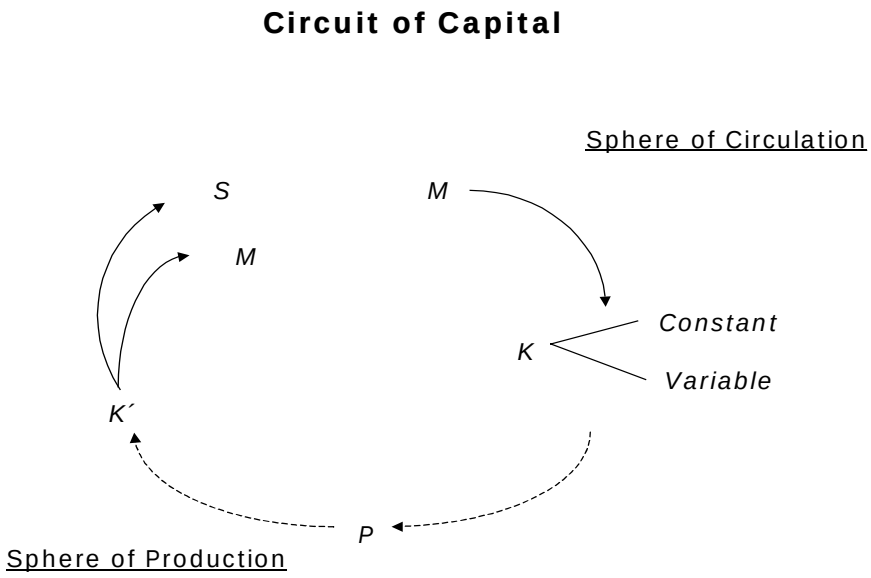

Figure 1: Circuit of Capital.

Figure 1 sets out the circuit of capital. It has two spheres: the sphere of production and the sphere of circulation. The circuit captures the essential aspects of the process of capital accumulation (Marx, 1954; Fine and Harris, 1979). But part of the difficulty in grappling with Marx is that he employs three different types of value in his argument: use value, exchange value, and *value*. Use value refers to the physical or other properties of a commodity that provoke a demand for it; use value is product utility. Exchange value is the monetary value that the product exchanges for; it is value in its money form. *Value* refers to the labour time embodied in the commodity. Marx recognises that only necessary labour time is relevant to the determination of the value of a commodity. And taking his macroeconomic perspective, *value* refers to socially necessary labour in the abstract ie the labour is a portion of total labour deployed across the system as a whole.

One of the obstacles to a wider understanding of Marx's approach is that it resists ready summary and simplification. However, at the risk of upsetting those schooled in *Capital* we will sacrifice the precision of his argument, and simplify the definitions and terminology to facilitate the development of a working knowledge of his theory.

The circuit begins with M, a sum of money advanced as capital. In order for this capital to "self-expand", it has to be transformed into productive resources. Thus, money capital, M, is converted into inputs, labour power (V) and means of production (C). K is a sum of labour *value* made up of value "stored" in the machinery, and *value* in the collection of wage goods required to "produce" the labourer. So K is a sum of *value*, a quantity of socially necessary labour time embodied in machinery etc and wage goods.

The sum of *value* advanced procures two types of capital. C is *constant* capital. It is constant because it cannot create more *value* than it already embodies. In contrast, V is *variable* capital, as it has the capacity to create *value* and *surplus value* over and above the costs of its production, represented by wage goods. So the labour power has the capacity to re-create the value advanced for wage goods ie it can produce sufficient new value to pay for itself, and it is also capable of producing *surplus value*. The working day is divided into the time spent on creating the sum of value advanced as wages (V) and the remainder of the day which produces *surplus value* (S) which is procured by the capitalist. The ratio S to V Marx refers to as the rate of surplus value, or the rate of exploitation.

So C and V are joined in the process of production P (see note [i]). Labour power working with the means of production (ie machinery, components, electricity) creates commodities with a *value* of K'. These commodities then have to enter the sphere of circulation in order for the value and surplus value created in the production process to be realised. The exchange of K' for cash realises a quantity of money ($M+S$), where S represents the surplus value created in the production process, appropriated by the capitalist in the form of profit.

Marx argues that S cannot all be frittered away on luxury consumption. The external coercive laws of competition force the capitalist to reinvest S in an attempt to extend his ability to extract even more surplus value, and as a defensive measure to preserve the original value of M. Competition between capitals leads to "moral depreciation" of the concrete means of production owned by the capitalist. Innovations in productive processes devalue past investments in machinery, and changing consumer tastes or product innovations can devalue the commodities (K') the capital can produce. So accumulation is also a defensive necessity for the individual capitalist.

We can now explore some dynamic processes within this circuit that affect the value of a particular capital. First, we echo the concerns of RBV by exploring the case of super-normal profits. Then we examine the processes that tend to bring about an equalisation of profit rates within an industry. This is further developed by drawing on RBV and other strategy theories to examine some causes of falling returns to individual capitals. Finally,

strategies to counter the effects of falling profits are considered: first, at the level of individual capitals, and then, briefly, from the perspective of capital as a whole.

We start, however, by developing the concept of labour power into four different categories. This elaboration is informed by RBV, and it enables us subsequently to discuss some important processes experienced within competing capitals.

Categories of labour

Marx, operating at the macro-economic level, tended to treat labour power as a generic resource, although he did recognise distinctions between the concrete labours performed by different artisans, and that different skills levels will exist. In contrast, RBV stresses the importance of heterogeneity in the performance of labour power. We can, therefore, usefully develop our understanding by introducing the RBV perspective into the circuit of capital. Specifically, we can identify four categories of labour power: *productive* labour, sub-divided into three categories: *homogeneous*, *differential*, and *entrepreneurial* labour; and *unproductive* labour.

Homogeneous labour (V_H)

Homogeneous labour performs similarly in all competing firms. We can denote this variant of labour power as V_H. This undifferentiated labour is substitutable and generic ie the labour of one production operative could conceivably be interchanged with the labour of another across competing capitals without affecting the profit performance of the firms involved. This labour combines with elements of constant capital to produce average levels of profit. For example, in the car industry these employees would be engaged in routine production processes such as hanging doors, fitting seats, etc. These processes would be performed in a similar manner in *all* competing car companies. They are essential to the production of the product concerned. Some indirect workers could also fall into this category eg staff concerned with procurement, production scheduling, budgetary control, and those tasked with the control of line employees through supervision.

Labour may be homogeneous across an industry because it is the product of generic training programmes. *Trained* personnel may be enacting a common set of professional behaviours and norms. If these activities are performed similarly *across* competing firms, they cannot be a source of profit differentials *between* competing firms.

Differential labour (V_D)

This category of productive labour (V_D) is critical in enabling a particular capital to capture superior levels of profit. Expressed differently, for a given amount of M advanced, differential labour enables a sum, S^+, of profit to be captured (where $S^+ > S$). This can only be achieved through the creation of commodities of value K^+ (where $K^+ > K'$). In turn, this can be achieved by either producing a greater quantity of commodities than competing capitals (with an equivalent amount of M advanced), or through the creation of products of superior quality, that permits the charging of premium prices. These alternatives align with Porter's (1980) cost leadership and differentiation strategies, respectively.

The individual employees or groups engaged in producing these sources of advantage may be quite obvious to managers inside the firm (eg particular designers, production engineers). However, drawing on RBV arguments, the performance and hence performers of differential labour may be difficult to identify. Advantage may derive from subtle processes like tacit routines, or the "culture" of the firm, which are not readily understood by managers.

Entrepreneurial labour (V_E)

Porter (1991) comments on RBV as follows: "successful firms are successful because they have unique resources. They should nurture these resources to be successful. But what is a unique resource? What makes it valuable? Why was a firm able to create or acquire it? Why does the original owner or current holder of the resource not bid the value away?" (1991: 108). Barney's (1986b) response to this last question is to suggest that in strategic factor markets, firms competing for strategic resources have different expectations about a resource's value. As a result, they will be prepared to pay different amounts for the resource. The "special insights into the future value of strategies" (Barney, 1986b: 1232) that the bidding firm has, enables it to acquire valuable resources at low prices. Alternatively, through good fortune, the firm happily discovers that a resource has considerably more value than anticipated when it was purchased. So, because of incomplete information about a resource's future value, the sellers of that resource are unable to recognise the "true" value of the resource, and hence cannot bargain up its supply price.

Entrepreneurial labour (V_E) refers to this special insight cited by Barney, the ability to recognise and understand what gives this particular productive capital an advantage. A critical element of this entrepreneurial insight is, therefore, the ability to recognise and develop differential labour, as it is this labour that is the source of superior levels of profit. Thus some *dynamic capabilities* may be aspects of V_E. The ability to recognise a market opportunity, and to marshal and nurture the right types of labour to exploit this opportunity is critical, and it is the only truly "strategic" labour performed in a business. One would expect most established ventures to be guided by entrepreneurial labour. Where the top management *really* understand the sources of the venture's success, they are performing entrepreneurial labour.

Entrepreneurial insight is very context specific, and it can operate at an intuitive level. Executives may have deep insight into the nature of the markets the venture serves, and into the idiosyncratic ways in which the organisation mobilises to gain advantage in those markets, but they may find it difficult to articulate these insights. They have elaborate schemas that enable them to make appropriate decisions for the venture, but they may be unable to explain their reasoning to others. Clearly, when this circumstance prevails the venture is heavily dependent on the insight of a few people, or in some cases maybe just one individual. Where this insight is guiding the venture, differential labour is understood and nurtured.

Knowledge of the sources of advantage in a venture is extremely valuable. In the hands of competitors this insight can lead to successful replication of differential labour, which erodes the capital's advantage, leading to "moral depreciation". But this insight can also reduce venture profitability if it is available to the employees who perform differential labour. These sellers of differential labour power can use this intelligence to bargain up their share of the value they create: wage and salary costs rise, the amount of surplus value captured by the capital declines. This insight also informs decisions about the scope of the venture. Judgements can be confidently made about those activities that can be safely outsourced through "downsizing", for example.

Note that RBV recognises inert or non-human resources that can generate rents. Barney refers to special insights that enable the firm to acquire undervalued assets, and the firm's control over these assets confers a profit advantage on the firm *not* the original resource owner. But again this asset is valuable through the entrepreneurial insight of the procuring executive. It is valuable *now*, in *this* context because of this insight.

We cannot assume that all successful businesses are directed by entrepreneurial labour. In an established venture the originating entrepreneurs may have left the scene. Differential labour will still be performed in the business, and the momentum of past routines

allows this labour to continue to deliver advantage, but the insight to recognise the sources of this advantage may well be missing.

Unproductive labour (V_U)
Where labour is paid for which adds nothing to help create or preserve value, then it actually *destroys* value, to the extent that these activities incur unrecoverable costs. Where entrepreneurial labour is absent managers are not only unable to distinguish differential labour they may also be unable to recognise some activities that are unnecessary.

Unproductive labour (V_U) may be engaged in the production of product or service features that are not valued by customers. Or there may be layers of supervision and management that add nothing to product value, nor do they contribute effectively to the preservation of value through the control of costs. The most straightforward way of assessing whether an activity is productive or unproductive is to benchmark against competing firms. The further one moves away from the "shop floor" the more difficult it can be to identify the value contribution of the individual employee. Where firms have de-layered with no adverse effect on the operational performance of the business, large cost savings have been achieved. Clearly, in these cases the layers eliminated must have been in this unproductive, value-destroying category of labour.

Capitals producing super-normal profits
An average capital in a particular industry will be producing an average return. Using the notation in the circuit of capital, and representing this as a process, we have:

$$M \rightarrow K(C,V) \rightarrow K' \rightarrow M + S .$$

In the average capital in an industry, V would consist of homogeneous labour power (V_H):

$$M \rightarrow K(C,V_H) \rightarrow K' \rightarrow M + S .$$

The average rate of profit earned by this firm would be: $\frac{S}{M}$.

RBV is concerned with capitals that are able to capture *above*-average profits, and, following the arguments set out earlier, to achieve this they may be employing differential labour:

$$M \rightarrow [C,(V_H,V_D)] \rightarrow K'' \rightarrow M + S^+ ,$$

where

$$K^+ > K' \text{ and } S^+ > S .$$

This is a situation where commodities can to be sold at prices above their labour values. This situation obtains either because V_D, combined with homogeneous labour power V_H, is able to produce standard commodities at lower costs than average capitals, or because V_D can produce differentiated products that can realise higher prices. The result is above average profitability produced by a *qualitative* difference in the labour deployed:

$$\frac{S^+}{M} > \frac{S}{M} .$$

So this represents the static case where a firm is happily in possession of differential labour resources. We now turn our attention to the dynamic processes that may lead to resource-based advantage.

The creation of resources
Differential labour could create new machinery or other intermediate use values like brands that can give advantage. Here the actions of differential labour have resulted in a *qualitative* improvement in constant capital *C*. So, whereas Marx generally treats constant capital as homogeneous, constant capital with differential capabilities can be created internally within the firm by the actions of labour. We can thus represent these qualitative improvements in constant capital *C* as C_D, and to be consistent, we can label homogeneous constant capital as C_H. We can represent this process of resource creation by setting out two sequential circuits of capital.

Differential labour creates better quality intermediate use values:

(a) $\underset{\textit{circuit } n}{\ldots . C_H, V_D \rightarrow K'M + S \rightarrow M \rightarrow C_D, V_H \rightarrow K^+} \underset{\textit{circuit } n+1}{\rightarrow M + S^+}.$

Internal processes of de-skilling and delayering have the effect of reducing the costs of variable capital. The effect would be to reduce the amount of *M* advanced to produce an equivalent amount of commodities K'. But the processes of de-skilling have resulted in an augmentation of constant capital in the form of systems and procedures. It is this improvement in the quality of constant capital that enables the firm to produce equivalent commodities using lower cost, homogeneous labour:

(b) $\underset{\textit{circuit } n}{\ldots . C_H, V_E, V_D \rightarrow K' \rightarrow M + S \rightarrow M^- \rightarrow K^-(C_D, V_H)} \underset{\textit{circuit } n+1}{\rightarrow K' \rightarrow M^- + S}.$

Here superior profitability results from a reduction in the amount of *M* advanced:

$\frac{S}{M^-} > \frac{S}{M}$, where $M^- < M$.

Similarly, where entrepreneurial labour acts to procure inputs that turn out to be relatively underpriced, then the amount of *M* advanced would again be *less* than that advanced by a competing firm that has not achieved this procurement advantage. The effect of artfully procured human or inert inputs would therefore be to increase the resultant relative profitability of the firm. These resources have been *bought* not *built*. Again the rate of profit (*S/M*) earned by this firm would be greater than competing firms:

$\frac{S}{M^-} > \frac{S}{M}$.

Equalisation of the rate of profit
Above-average profits can be sustained if there are barriers which prevent differential labour being re-classified as homogeneous labour through processes of imitation. Here the process $V_D \rightarrow V_H$ is delayed. In the absence of these barriers (in strategy parlance, barriers to entry,

mobility barriers, or barriers to imitation) capitals can hire the requisite types of labour, which, by definition, classifies it as generic, homogeneous labour power (V_H). Once the original differentiating processes have been imitated, profit rates are likely to equalise across competing capitals. More specifically, this process might operate as follows.

Differential labour enables the firm to win business. However, it may be in scarce supply, therefore it might place a constraint on growth. Furthermore, it increases the dependence of the capital on particular individuals and groups, which may enable the providers of this labour to bargain up their wages. So, in order to reduce this dependence and to contain wage costs, efforts will be made to systematise and proceduralise the processes performed by differential labour. This process of, essentially, de-skilling V_D, converts V_D into homogeneous labour V_H *within* the firm, as described in process (b) above. However, if these explicit systems and procedures can be trained into relatively unskilled labour, then the advantages conferred by the original V_D may be more easily imitable by competing firms. Thus the special systems and processes migrate from the originating firm to competing firms eg "just-in-time" systems, MRP etc. The processes of imitation then convert C_D for the originating firm into C_H.

Alternatively, above-average profits may be achieved through investments in means of production to exploit, for example, scale-based technological advantages. The first mover to exploit the technical advantage will be able to generate above-average levels of profit, the source of which is the entrepreneurial insight (V_E) that has spotted the potential for advantage first. These investments are likely to increase the size of invested C relative to the average capital in the industry (C increases to C^+) (see note [ii]).

First-mover investment in large-scale production (ie S is re-invested):

(c) $$C_H, V_E, ...M + S \rightarrow M^+ \rightarrow C^+, V_H \rightarrow K^+ \rightarrow M^+ + S^+ .$$
$$\underbrace{\qquad\qquad\qquad}_{circuit\ n} \qquad\qquad \underbrace{\qquad\qquad\qquad}_{circuit\ n+1}$$

where

$$K^+ > K'$$
$$M^+ > M$$
$$C^+ > C_H$$
$$S^+ > S$$

and $$\frac{S^+}{M^+} > \frac{S}{M} .$$

We can assume that this process of increasing the *quantity* of constant capital employed would have to be funded out of surpluses generated in the previous circuits. Marx refers to this continual re-investment in constant capital as the process of *accumulation*. Where it is clear to all competing firms that there are scale-related advantages, the pressures are on to achieve the minimum efficient scale first. The "first mover" though would be the firm blessed with some entrepreneurial labour V_E. If this advantage is imitated, which is more likely to happen if it stems from the purchase of equipment freely traded in an open market for capital goods, then, within the industry $C^+ \rightarrow C_H$.

Marx focuses a great deal of attention on this process of accumulation. The result for the individual capital is an increase in C/V the "organic composition of capital". If this

investment strategy is imitated, then $C^{+} \rightarrow C_H$ across the industry, and hence C/V increases across the industry.

But our explanation of RBV through this Marxist lens has suggested that C can increase through processes of systemisation, and through the creation of other intermediate use values that enhance the value creating capabilities of the employed labour. These processes of intermediate use value creation also have the effect of increasing the organic composition of capital for the firm.

The resource-enhanced firm is able to reap the surplus value of these developments because the exchange value of K' is determined by the production costs of competing, non-resource enhanced competitors. But the processes of intermediate use value creation may themselves also be imitated. This would have the effect of increasing C/V for the industry as a whole.

Causes of "moral depreciation" of capitals

Marx refers to the decline in the value of a capital as "moral depreciation". This can occur as a result of changing patterns of demand for the particular product or service. Here the demise is brought about not primarily by competitive imitation, but through a change in customer needs or tastes, resulting in orders dwindling. The challenge to the managers is to re-deploy the differential and homogeneous labour into a new venture. This can only be achieved with the requisite entrepreneurial labour (V_E) that possesses the required insights into market opportunities, and into how these opportunities match with the particular skills possessed by the productive labour currently deployed in the firm. There is a long and depressing history of management with entrepreneurial understanding of past ventures who lack insight into *new* ventures. Diversification is fraught with problems that stem from this lack of insight. The unsuccessful re-deployment of labour into the new venture is manifested through no order-winning product advantages accruing, and a rapid shift to cost cutting, to permit the venture to compete through low prices.

Moral depreciation can also occur where the founding entrepreneurs depart from the organization, or from them staying but failing to recognise changes in the markets the capital serves. The venture may still be successful for a time. The problem is that without entrepreneurial insight into the nature of the differential labour driving profitability there is a danger that crucial sources of advantage may be inadvertently destroyed. Here we have a redefinition of entrepreneurial labour into generic managerial labour, which is performed in a similar way across competing capitals ($V_E \rightarrow V_H$).

Short-term cost-cutting tactics like downsizing and delayering can contribute to the firm's demise. If entrepreneurial insight is absent, then it is likely that activities that are out-sourced or eliminated through these measures will include some differential labour (V_D). Furthermore, cost-cutting measures may reap short-term cost savings, but by axing certain types of ongoing activities like training, research and development, and marketing, which may all be involved in the production of future differential value, the viability of the venture is threatened.

A lack of entrepreneurial insight (V_E) can be found in established ventures that are driven by strong values and cultures. Top management may believe that there is still a pool of differential labour delivering unique order-winning dimensions of customer value. But they may be deluding themselves if they have failed to appreciate that the causes of past success may not deliver current or future advantage. Management who lack entrepreneurial insight may find themselves blaming other groups for the decline of the venture: competitors not competing fairly, customers who do not recognise the superiority of our products, our sales people are useless, or our costs are too high because employees are not working hard enough. In this case, rather than top management delivering the entrepreneurial labour any

venture requires, their labour must be re-classified as value-destroying unproductive labour (V_U): these top managers are incurring costs that cannot be recovered, so they not only add no value, they destroy value. Hence, over time: $V_E \rightarrow V_H \rightarrow V_U$.

The capital is finally destroyed when unproductive labour incurs costs that outweigh the value created by homogeneous labour: so where $V_U > V_H$, the capital is no longer productive.

Countering "moral depreciation"

Marx argued that moral depreciation of a capital can be countered by processes designed to extract more surplus value from the employed labour, by, for example, speeding up the production process and by extending the length of the working day. The application of the "experience curve" is another way of raising labour productivity. Hierarchical structures with their attendant control and disciplinary systems are designed to reinforce the process of surplus value creation, but these policing activities are a *cost* to capital. Supervisors and managers whose primary role is to control and discipline workers create no value or surplus value. They play a role in *capturing* surplus value from employees. These supervisory costs can be reduced where the employees effectively police themselves. Cultures which encourage employees to monitor their own quality or to be "customer focussed" can be viewed as attempts to economise on supervisory costs (Conger and Kanungo, 1988).

There is an underlying preference for firm strategies to favour the replacement of living labour with machinery. As we saw earlier, the firm that automates ahead of its competitors is likely to reap a temporary advantage in the form of superior profitability resulting from lower costs. Any barriers to the imitation of the process innovation that the firm can erect would help to prolong this advantage. Innovation in use-values produced, or in technical processes of production can render past investments of constant capital valueless ie the concrete use-value manifestation of the constant capital is rendered redundant. So strategies that enable the firm to innovate ahead of competitors are attractive as they cause the "moral depreciation" of *competing* capitals.

Entry barriers explain how super profits can be sustained. These barriers tend to operate in the part of the circuit of capital represented by $K \rightarrow C$, $V \rightarrow P$. New capital is prevented from entering into this sphere of production either because of legal barriers to entry enforced by the state (patents, licenses etc) or from an inability to access the required labour (differential labour power, V_D) or the appropriate means of production (special equipment, systems, or technologies).

Vertical integration, where one capital extends the scope of its operations to include prior and/or subsequent production processes, can be viewed as a defensive strategy. In order to reduce dependence on another firm, capital is extended further into the value chain for a given commodity. This helps to ensure that a given capital can attempt to capture the value and surplus value created by it. Otherwise, productive capital may be coerced into conceding more value either to a supplier of means of production or to merchant capital invested in distribution.

Marx argues that accumulation leads to the concentration of capital. Mergers and acquisitions concentrate capital into fewer hands. Mergers can help insulate a given capital from the destructive effects of competition, helping to slow down the process of moral depreciation of constant capital. Concentration of capital in a particular industry may also permit the pricing of products well above their true values. Monopoly would be the ultimate expression of this tendency, but the beneficial effects of concentration can be realised through the operation of informal cartels.

One important difference between Marx's notions of concentration and more conventional uses of the term, is that Marx refers to concentrations of *capital*, whereas

applied economics tends to take account of the use-value domains involved ie concentration ratios are calculated for *industries*. To a certain extent use-values are irrelevant; capital can be highly concentrated in the hands of a few individuals even though the industries in which the capital is invested appear to have low conventional concentration ratios. This reflects Marx's macroeconomic perspective. Capital is invested to make profits, and most capitalists do not limit their investments to one industrial sphere, they hold *portfolios* of investments. Surplus value production is a societal process abstracted from the production of particular use-values. Choosing use-value contexts in which to invest takes the form of a gamble, where risks can be reduced by spreading one's capital over many use-value domains.

Periodic crises, recessions, depressions, hyper-inflation, and mass unemployment are inherent features of the capitalist system. Given the limitations of the paper we cannot delve into Marx's arguments concerning the causes of crises. What we *can* assert, however, is that accumulation across social capital as a whole is never a smooth and continuous process.

Falling rates of profit

Marx argues that the process of accumulation leads to an increase in the ratio of constant to variable capital, the *organic composition of capital C/V*. We have seen that, in an effort to reduce costs, living labour (V) is replaced by "dead" labour (C) embodied in the means of production. If the rate of exploitation (S/V) remains constant, then the increasing organic composition of capital has the overall effect of causing the rate of profit to fall. This is Marx's Law of the Tendency of the Rate of Profit to Fall, an inherent tendency within the system that nevertheless can be moderated by "counteracting forces". From the perspective of RBV, this process of increasing C/V could be explained as follows.

We have seen how economies of scale, processes or de-skilling, and the creation of intermediate use values can all lead to an increase in the organic composition of capital C/V. Ultimately de-skilling can result in the process being performed by a machine. Here living labour V is replaced, relatively, by "dead" labour embodied in the means of production C. As these moves are imitated across the industry the net outcome is an increase in the organic composition of capital in that industry, relative to other industries: C^{+}/V compared with C/V for other spheres of production, where $C^{+}>C$. As surplus value can only be derived from the actions of living labour (V), if there is no corresponding increase in the rate of exploitation of this labour in the industry (ie S/V is average), then the rate of profit in this industry will decline:

$$\textbf{Rate of Profit} = \frac{S}{C+V}.$$

If we divide through by V, then:

$$\textbf{Rate of Profit} = \frac{\frac{S}{V}}{\frac{C}{V}+1}.$$

And so, if C^{+}/V for a particular industry is greater than average C/V, then the rate of profit in this industry will be lower than average:

$$\frac{C^+}{V} > \frac{C}{V},$$

therefore the rate of profit in this industry is below average:

$$\frac{\frac{S}{V}}{\frac{C^+}{V}+1} < \frac{\frac{S}{V}}{\frac{C}{V}+1}.$$

So the replacement of living labour with machinery, de-skilling, and the creation of intermediate use values confers a *temporary* advantage on the firm that innovates first. But, if these moves are imitated the result is an increase in the organic composition of capital in the *industry*, relative to others, and hence a declining rate of profit in this industry. So the process of de-skilling and automation gains a short-term advantage for the first mover in the industry, but the net effect of this process is to lower profit rates across the industry as this ploy is imitated. So, using our notation, over time in an industry: $V_D \rightarrow V_H \rightarrow C$, leading to $C/V \rightarrow C^+/V$ which results in a falling rate of profit in this sphere relative to industries with average organic compositions of capital. But Marx argues that this tendency leads ultimately to falling profit rates across the entire system, which precipitates crises. So Schumpeter's process of creative destruction can lead not just to the demise of individual capitals, it can also lead to the relative decline of industry profitability if the innovations have the effect of increasing the organic composition of capital.

Largely driven by the in-built tendency for the average rate of profit to fall crises are inevitable. The crisis is usually resolved by a combination of capital destruction (firms go out of business), leading *inter alia* to unemployment, which puts downward pressures on wages, and permits an increase in the rate of exploitation of labour (S/V).

This tendency to crisis clearly puts the attempt to manage long-term strategy into perspective. This would suggest that strategists are at the mercy of these global, system-wide forces. These massive forces are outside the control of individual capitals, and possibly the only recourse for strategists is to understand them better. This is presumably the role of environmental appraisals in the strategy process, whereby the economic and political trends and forces operating on the firm and industry are assessed, scenarios are debated, and contingency plans created. However, if we accept Marx's explanation of capitalism there may be a role for strategists operating *in concert* on behalf of the capitalist class as a whole [see Ingram and Inman (1996) for an institutional view of this process, and Useem's (1984) "Inner Circle" concept]. If value and surplus value are produced at the system level, then it would make sense for strategists to help to ensure that the societal context within which they function is most conducive to surplus value production. We could call this level of strategy, *meta-strategy*, strategy operating above the level of corporations.

Conclusion

In this paper we have used insights from Marx's economics to inform RBV, and RBV in turn has enabled us to develop certain aspects of Marx's schema. In particular this has enabled us to elaborate the concept of labour-power into several categories, and to develop our understanding of the processes of "moral depreciation" experienced by individual capitals. We have seen that the process of accumulation, which is at the heart of Marx's analysis and which we have explored in the circuit of capital, is capable of representing and accounting for

many fundamental processes addressed in the strategy field. Specifically, the fusion of these two complementary perspectives provides a coherent explanation of competitive processes within and between competing capitals.

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Notes

[i] **The process of production**

The production process is where all value and surplus value is created. New value is created by the labour power set in motion with the means of production. Marx argued that constant capital *C* is "dead" labour embodied in the means of production (*MP*). This portion of capital cannot create new value. The best that can happen here is that the living labour "valorises" this dead labour, enabling its value to be passed on in the form of saleable commodities. Marx is clear that a commodity must be a *use-value*. Thus, the *use*-value of a commodity is assessed by the customer at the point of sale, a "subjective" approach to value theory. Pursuing this line of argument further, customers can only value what they perceive. Thus they are unable to value, for example, inputs to the production process. This means that they cannot *consciously* "reward" or compensate any inputted resources, or any suppliers of those resources.

A more significant consequence of this line of argument is that the monetary value of an input cannot be "passed on" in the production process. All inputs are subject to the same rules as any final, consumer product outputs. Hence, the *exchange* value of a computer-controlled lathe or a truck is determined at the point of the decision to purchase it, or to sell it. Its exchange value is also realised at the point of purchase. It is not passed on in any way. It is an accounting convenience to assume that the exchange values, or prices of inputs are passed on to customers. In reality, many resources are purchased that do not "add value" in ways that a customer can perceive. That is not to say that the purchased input was not valued. It was. It was valued as a *use*-value by the manager who decided to buy it on behalf of the firm. But as soon as the machine was bought, all its *exchange* value was "realised".

Thus, it is unhelpful to try separately to value inputs into *P*, the production process. Once these means of production have been purchased, they move out of the sphere of circulation and into the sphere of production. They could only be valued if they re-enter this sphere ie if the capitalist decided to re-sell a machine. Firms can only be sensibly valued as a gestalt, as a coherent ongoing system, and this valuation is the market capitalisation of the firm. In other words, the firm is valued according to the judgements another capitalist makes about its future profit-earning capacity, which is compared with other outlets for money capital, and is reflected in the firm's share price.

[ii] **Profit rate equalisation**

This line of argument assumes that the process of profit rate equalisation operates at the level of use-values: ie through processes within a particular industry domain. When Marx was writing, *capital* markets were relatively undeveloped, but in today's highly efficient global capital markets the process of profit rate equalisation is conducted at a higher level, a level abstracted from particular use-value domains, or industries. Equalisation of the rate of profit occurs not primarily through competition in *product* markets, but through near perfect competition in *capital* markets. This is entirely appropriate, as it gets to the heart of capitalism, where the objective of production is profit, not use-values. Capitalist structures

try to ensure that this capital market is perfectly competitive; entry and exit is unfettered, to permit the shifting of cash to the most productive (of profit) applications. Once *capitals* can be traded in the form of shares or stock, equalisation occurs above the domain of use-value production. This process happens when the firm earning super profits experiences an increase in the demand for its shares, hence raising their price. The new owner of the higher priced share probably earns an average rate of return on it, the seller of the share makes a windfall profit. The net result is an (risk adjusted) equal rate of return for all capital over the longer run.

So a share is a legal right to a proportion of captured surplus value. Once shares have been issued the processes of surplus value production, the firm itself has been commoditised. These shares will be exchanged, and their value will be a function of surplus value.