

## **Is entrepreneurship a resource?**

### **Reflections on Schumpeterian, Kirznerian and Ricardian approaches to entrepreneurial dynamics**

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#### **Abstract**

Entrepreneurship is here discussed in a strategizing and dynamic framework, consistent with a view of strategizing as capturing profit opportunities in disequilibrium. Nothing would seem to be more opposed than the Schumpeterian and Kirznerian conceptions of entrepreneurship – the one driving the economic system away from equilibrium, the other driving the system towards equilibrium. In this paper a solution to this conundrum is offered, by focusing on different evolutionary processes operating simultaneously within the business system, giving rise to both equilibrating and disequilibrating outcomes. Along the way, the paper sheds light on the nature of entrepreneurial dynamics, viewed from an evolutionary perspective, and their capacity to generate the variety that is the dominant characteristic of the resilient and innovative capitalist system. The Kirznerian and Schumpeterian approaches are contrasted with approaches that may be dubbed ‘Ricardian’ and which posit ‘entrepreneurial rents’ as the goal, and entrepreneurial characteristics as resources.

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“This process of Creative Destruction is the essential fact about capitalism. It is what capitalism consists in and what every capitalist concern has got to live in. ... Economists are at long last emerging from the stage in which price competition was all they saw. As soon as quality competition and sales effort are admitted into the sacred precincts of theory, the price variable is ousted from its dominant position... But in capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest-scale unit of control for instance) – competition which commands a decisive cost or quality advantage and which strikes not at the margins of the profits and the outputs of the existing firms but at their foundations and their very lives.”

Joseph Schumpeter, *Capitalism, Socialism and Democracy* (1942/1975: 82; 83; 84)

“... markets tend continually (in the face of equally continual exogenous changes in the relevant independent variables) towards equilibrium, as the consequence of continually-stimulated entrepreneurial discoveries....The entrepreneurial role is that of alertly noticing (“discovering”) where these errors [of entrepreneurial over-optimism or over-pessimism] have occurred, and of moving to take advantage of such discoveries, and thus of nudging the market systematically in the direction of greater mutual awareness among market participants. (Since equilibrium is the state in which all market participants are, in effect, fully and correctly aware of what all others are doing, the entrepreneurial discovery process is one whose tendency is systematically equilibrative.)”

Israel Kirzner, Creativity and/or alertness: A reconsideration of the Schumpeterian entrepreneur, *Review of Austrian Economics*, 11: 5-17 (1999)

## 1. Introduction

It would seem on the face of it that nothing could be more opposed than the Schumpeterian and Kirznerian conceptions of entrepreneurship – the one driving the economic system away from equilibrium, the other driving the system towards equilibrium. How are these two views to be reconciled?

In this paper I offer a solution to this conundrum, by focusing on different evolutionary processes operating simultaneously within the business system, giving rise to both equilibrating and disequilibrating outcomes. Along the way, I hope to shed light on disequilibrium itself, and on the nature of entrepreneurial dynamics, viewed from an evolutionary perspective, a strategic perspective, and from the perspective of industrial dynamics. One outcome of such a more general perspective, which may be dubbed a ‘strategizing in disequilibrium’ perspective, is a resolution of the long-standing Schumpeterian vs. Kirznerian conceptions of entrepreneurship.

In the recent period there has been a revival of interest in these matters, and some important contributions – and some setbacks. Consider the case of Shane and Venkataraman (2000; 2001), for example, who begin their recent survey of entrepreneurship as a field of study with the provocative statement that: “For a field of social science to have usefulness, it must have a conceptual framework that explains and predicts a set of empirical phenomena not explained or predicted by conceptual frameworks already in existence in other fields. To date, the phenomenon of entrepreneurship has lacked such a conceptual framework” (2001: 217). Shane and Venkataraman then outline their version of a framework that should guide research on entrepreneurship, using as definition of this field that it is “the scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited” (2000: 218). Consequently, they argue that the field involves study of opportunities and their sources; processes of discovery and evaluation; and the set of individuals who discover, evaluate and exploit such opportunities. If these scholars are to be believed, entrepreneurship does not involve study of *how businesses are actually founded and how they grow*; nor with *how they are diversified*; nor with *how the entrepreneurial process fits into the wider processes of the economy* including the industrial dynamics involved, nor with how it meshes with any notion of *strategizing*. All of these elements, I suggest, must be part of any comprehensive framework that captures the role of entrepreneurial behavior in generating strategic variety and in driving the economy along new pathways.<sup>1</sup>

In this paper, I first review some existing approaches to the issue, and then develop a framework within which entrepreneurial processes may be given a clear functional meaning from a strategizing perspective, and the features of entrepreneurial dynamics from such a perspective may be displayed. The emphasis is on linking entrepreneurial dynamics and their success to the conditions of the economy, and in particular disequilibrium conditions and cyclical features such as upturns and downturns, rather than the psychological characteristics that are still held to be important – even by Kirzner when he describes the Schumpeterian entrepreneur as having “aggressive, bold, creative leadership qualities” (1999: 13). Then I put entrepreneurial dynamics into an evolutionary setting, and in particular pose the possibility of varying Darwinian processes based on variation, selection and retention operating over different time spans. It is in such a setting that I propose that the Kirznerian and Schumpeterian entrepreneurs may best be reconciled.

## **2. If entrepreneurship is a resource, then ...**

Let us start with reviewing some approaches to the issue. Scholars at the Fisher College of Business, where the Ricardian approach to a RBV of strategy has been

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<sup>1</sup> Low and Macmillan (1988) put the position well, when reviewing earlier definitions of entrepreneurship: “The problem with these definitions is that though each captures an aspect of entrepreneurship, none captures the whole picture. The phenomenon .. is intertwined with a complex set of contiguous and overlapping constructs ... (and) can be productively investigated from disciplines as varied as economics, sociology, finance, history, psychology, and anthropology ... Indeed, it seems likely that the desire of common definitions and a clearly defined area of inquiry will remain unfulfilled in the foreseeable future” (1988: 141). For a commentary a decade later, where the prospects for clarity are not seen as much brighter, see Davidsson, Low and Wright (2001).

developed, have in the last few years been looking to incorporate entrepreneurship within their framework. Central to this endeavour is the formulation of a notion of ‘entrepreneurial rents’ – as discussed for example by Alvarez and Barney (2000) and Alvarez and Busenitz (2001). Here the argument goes that entrepreneurial initiative is associated with some identifiable ‘resources’ such as *entrepreneurial cognition* (the recognition of opportunities) and entrepreneurial resource-combining (the exercise of combinative capabilities), brought to the firm by the entrepreneur, and which then earn *entrepreneurial rents*. We are told for example that entrepreneurs approach problem-solving differently from managers, and that if the insights and decisions reached with this kind of entrepreneurial cognition “are indeed rare, if they are difficult to imitate, and if the generated ideas are exploited by the entrepreneurs, then these entrepreneurial insights and decisions are a resource that can potentially lead to a competitive advantage’ (Alvarez and Busenitz 2001: 759). Apart from the interesting reversal, where the BRIO criteria are actually used here to define a resource (as opposed to a resource being characterized as such), we note the infinite regress involved in such an argument: if this kind of ‘entrepreneurial cognition’ is indeed a resource, then it can be offered by its owner to an entrepreneur building a business and as such can attract a rent. So there will have to be another entrepreneur B taking advantage of A’s ‘entrepreneurial cognition’ – and if entrepreneur B also displays entrepreneurial cognition, then his or her cognition will be available to be used by entrepreneur C – and so on and on we go, in an infinite regress. This is an inescapable implication of characterizing entrepreneurial characteristics as resources which can earn rents.

Alvarez and Busenitz then go on to inform us that “entrepreneurs can use market forms of governance to coordinate many resources necessary to realize an economic opportunity; they can also use a firm, as a form of hierarchical governance, to realize these opportunities” (A&B 2001: 760). What might these ‘market forms of governance’ be, if they do not involve formation of a firm which is, after all, what entrepreneurs generally are supposed to be building. Perhaps Alvarez and Busenitz mean a contractual form of governance – such as a license over a patent. Alvarez and Barney (2004) claim to deal with this situation by asking three simple questions about an entrepreneurial opportunity: a) whether the economic actor who wishes to take advantage of the opportunity controls the required resources or not; b) whether the knowledge involved is tacit or explicit; and c) whether there are effective isolating mechanisms in place. Thus for the case of an opportunity to develop a new business based on a new technology protected by a patent, reading off the Alvarez and Barney schema one finds that the “correct” economic form of organization is “non-hierarchical” i.e. contractual – to wit, the opportunity should be exploited via licensing. In practice, where effective markets for technology exist, such an outcome may be desirable. But what about the host of situations where the entrepreneur actually wishes to start his or her own business based on the patent-protected technology? Such an obvious (and common) procedure would be condemned by the *a priori* reasoning of Alvarez and Barney.

Alvarez (2007) takes the matter further but appears to end up contradicting Alvarez and Busenitz (2001) insofar as she informs us that entrepreneurs are acting in a situation of Knightian uncertainty, where hierarchical governance structures do not work. In this more elaborated metaphysics of entrepreneurship, Alvarez explains that *entrepreneurial rents* “are created when economic actors combine resources in new and different ways, and when the value of these resource combinations is not known, *ex ante*” (2007: 431). Presumably such rents are being contrasted with a case where

resource combinations have a *known value ex ante* – a case which could only be associated with perfect competition and where such ‘rents’ have been competed away to zero. But let that pass. Entrepreneurial rents as such are viewed as a ‘lure to invest’ while quasi-rents, defined as earnings when the value of an investment is either known with certainty or known probabilistically, i.e. under conditions of risk, are viewed as an incentive to leave an industry. Entry and exit are therefore linked to two specific notions of rents and quasi-rents. What this has to do with Marshall’s original intention in introducing the idea of quasi-rent, to characterize the earnings of a ‘quasi-fixed’ factor of production such as machinery, is quite beyond me. Alvarez then tells us that once “the value of an entrepreneurial rent is determined ex post in the market, it becomes a quasi rent” – by definition, since rents are defined as occurring in uncertainty, and quasi rents under conditions of risk. Alvarez adds the further insight that under conditions of uncertainty, governance structures based on fiat – saying who gets what – are unlikely to work. This is surely true, since entrepreneurial ventures are, by definition, ventures where the outcome is not known.

Leaving aside all this business about rents and quasi rents, and the circularity of entrepreneurial rents being generated only in conditions of uncertainty (as if they could be generated under any other circumstances) we are left with the key question, which is how strategic criteria might be brought to bear on entrepreneurial decisions. Why are some entrepreneurial decisions likely to lead to superior market positions? Here Alvarez (2007) offers no further enlightenment – other than the insights offered earlier to the effects that entrepreneurs assemble ‘resources’ such as entrepreneurial cognition and that *if* these modes of thinking can be characterized as being rare, difficult to imitate etc then they can be called resources—and presumably will be sought by entrepreneurs wishing to avail themselves of such rare, difficult to imitate etc characteristics.

So, let us provide an example – since Barney, Alvarez and Busenitz never seem to do so. Let us say that an entrepreneur A wishes to open a coffee shop, and secures the land needed for it. So our entrepreneur already possesses a resource with a property right attached to it – but assuming that it is on a shopping street, it has no particular rarity or difficulty involved in imitation, since after all our entrepreneur is merely imitating what hundreds of others have done before. Now let us assume that the entrepreneur wishes to build a coffee shop business with a sustainable competitive advantage, and so he/she creates a nice special pastry and calls it ‘Jay’s special’ since he is a great admirer of the RBV. Either this special pastry is going to be bought in from a very special bakery that does already exercise a competitive advantage in special pastries – in which case the ‘rent’ associated with the special pastry will be appropriated by the bakery – or else the entrepreneur A hires a special chef who creates the special pastry –and presumably will appropriate the rents involved in the very high salary he attracts. Either way, not much ‘entrepreneurial profit’ is left over for the entrepreneur A.

But what if our entrepreneur brings ‘entrepreneurial cognition’ into the picture? This time, the resource labelled ‘cognition’ recognizes that there exists a market opportunity for a coffee shop with a special pastry, and so entrepreneur A hires this ‘cognition’ resource to pin down the insight and take full ownership of it (since such a resource might prove valuable and come up with some new ideas). Then, armed with this cognitive resource, the entrepreneur A then faces the issue: how to implement this marketing insight? Presumably there is a choice between buying in the pastries (as before) or hiring a chef (as before). Nothing has changed. How then does the resource ‘entrepreneurial cognition’ alter the situation under analysis? Only to the

extent that now the entrepreneur A will pay for this resource – out of his zero profits left after the rents have been extracted. And how does entrepreneur A decide whether to avail himself of this valuable ‘cognition’ resource that generates such valuable insights? Presumably, by exercising his own ‘entrepreneurial cognition’ – and we are back with an infinite regress.

Flippant as these remarks may appear to be, they go to a serious issue. The protagonists at the Fisher College of Business have spent years presenting a ‘theory of the entrepreneurial firm’ which, when it is not entirely circular, or building a house of air on metaphysical quasi rents, generates no insights at all over and above what the RBV has already asserted to be the case. And the RBV has already shown itself to be concerned entirely with comparative static situations and Ricardian rents where the resources being deployed are already known and valued – in other words, a theory that has zero insight to provide into the situation of the entrepreneur, where everything is uncertain. Of that, we can indeed be certain.

### **3. If entrepreneurial opportunities are created by market imperfections, then ...**

In the same *Journal of Business Venturing* where we find the papers by Alvarez, Barney et al, we also find Cohen and Winn (2007) tackling the question of market imperfections and entrepreneurship. Cohen and Winn raise the stakes by setting their entrepreneurs in conditions of global spoliation of resources, global warming, and pollution. Taking their cue from the RBV, which views the value of resources as being created by market imperfections, they then cite four market imperfections (existence of externalities; imperfections in pricing systems; imperfect distribution of information, and – for good measure, but inexplicably – inefficiencies in firms) and declare that these are “sources of opportunities” (C&B 2007: 30). The paper then goes on to elaborate on the relationship between market imperfections and entrepreneurial opportunities, and the emerging field of ‘sustainable entrepreneurship’.

So, let us engage in another little thought experiment. Suppose that you are the Secretary-General of the United Nations, and you are scanning the management literature for some inspiration. You come across his paper. By Jove, you say, here we find market imperfections (such as the absence of a carbon price, or skewed information over oil supplies as between ExxonMobil and the average consumer) creating opportunities for entrepreneurs. It’s a good thing, you declare to your colleagues, that we abandoned that Kyoto Treaty, because that would have introduced a carbon price and thereby reduced the market imperfections *for all players*. We don’t want our policies to eliminate entrepreneurial opportunities.

Here the problem stems again from a contrived view of entrepreneurship, as taking opportunities where rents are asserted to be generated from market imperfections. What an easy slippery slope it is to view such opportunities as the primary issue – even in situations where the opportunities so generated are life-threatening? Obviously we would all agree – surely – that some opportunities are best ignored, or extinguished by appropriate public policy.

The point I am labouring to make is that it is not ‘market imperfections’ – defined as situations that generate rents (or perhaps quasi rents, according to Alvarez) – that attract the attention of entrepreneurs, but situations where profits can be earned. And profits, we know from Knight, can only be earned in conditions of disequilibrium. So no matter what the ‘imperfections’ might be imagined to be – and they are only imperfections when compared with an imaginary ‘perfect market’ where there is

perfect competition and profits are reduced to zero – their discussion does not illuminate the situation of the entrepreneur. Unless our purpose is to amuse, and to imagine situations like abandoning the Kyoto Protocol so as to preserve environmentally attractive opportunities for West Coast entrepreneurs.

These are all examples of what might be dubbed a ‘Ricardian’ approach to entrepreneurship. I use the term advisedly –since Ricardo never once mentioned ‘the entrepreneur’ in his writings, and never considered situations which we would describe today as involving entrepreneurial dynamics. While the scholars of the Fisher College of Business know doubt have their reasons for pursuing entrepreneurial rents, it is hard to see just where this line of reasoning is taking the field.

Perhaps the strongest statement as to the role of the entrepreneur in the economics literature of the 20<sup>th</sup> century is provided by the French economist, Jean Marchal (1951): “... the entrepreneur, although undeniably providing a factor of production, perhaps the most important one in a capitalist system, is not himself to be defined in those terms” (1951: 551). Marchal elaborates a theory of profit (published in the *American Economic Review*) that sees it as the fundamental engine of capitalism, and derived from entrepreneurial action on the market structure – not taking it as given, but changing it to profitable ends. His insight is worth carrying at length.

*[E]ntrepreneurs obtain remuneration for their activity in a very different manner than do laborers or lenders of capital. The latter provide factors of production which they sell to the entrepreneur at prices which they naturally try to make as high as possible. The entrepreneur proceeds quite otherwise; instead of selling something to the enterprise he identifies himself with the enterprise.. Some people doubtless will say that he provides the function of enterprise and receives as remuneration a sum which varies according to the results. But this is a tortured way of presenting the thing, inspired by an unhealthy desire to establish arbitrarily a symmetry with the other factors. In reality, the entrepreneur and the firm are one and the same. His function is to negotiate, or to pay people for negotiating under his responsibility and in the name of the firm, with two groups: on the one hand, with those who provide the factors of production, in which case his problem is to pay the lowest prices possible; on the other hand, with the buyers of the finished products, from which it is desirable to obtain as large a total revenue as possible. To say all this in a few words, the entrepreneur, although undeniably providing a factor of production, perhaps the most important one in a capitalist system, is not himself to be defined in those terms. (1951: 550-51)*

In Marchal’s view, the established firm takes prices and costs as given, and works out a production schedule based on these cost curves. But the entrepreneur changes the cost curves, by making a hypothetical judgment as to what the profit might be if the cost curves (and prices of factors or resources) were different. It is this capacity to make a judgment as to what would happen if circumstances were to change (or be changed) that distinguishes capitalism as a system, and the entrepreneur as prime mover of the system, from everything else. This has to be our starting point.

So if we rule out entrepreneurial characteristics such as ‘cognition’ as resources (or factors of production) then that raises two important issues: just how are resources to be defined as part of an entrepreneurial theory of the firm (one that does

not depend on ‘entrepreneurial rents’), and how should entrepreneurship itself be formulated as something different from the resources assembled by its intervention? How then should we approach the issue of entrepreneurial dynamics?<sup>2</sup> Let us tackle the first issue first.

#### **4. The essence of entrepreneurship: creating new enterprises**

Let us start our account with resources, since they are the prime elemental category out of which businesses are created. Given the discussion above, we wish to restrict our definition of resources to entities that can be assembled by entrepreneurs into businesses. These resources will have various attributes, some of which are known and some of which remain to be discovered – which itself is an important aspect of entrepreneurial activity.<sup>3</sup> But let us exclude from our definition any notion of entrepreneurial capability, which we want to embody in the entrepreneur and not in the resources being assembled. Let us assume, to illustrate, that you an entrepreneur wishing to start up an airline, and that you already have some credit at your disposal (e.g. a cheque account at the bank with an overdraft facility). What kinds of resources are you going to need? Assuming that you wish to pursue a low-cost strategy and emulate firms like RyanAir and easyJet, then you will need to access a fleet of carriers (by leasing them, at least initially), access some key human resources such as flight deck crew and cabin and ground staff, and some operational resources such as passenger booking systems. But even before these tangible resources you will need intangible resources such as a license to operate an airline and landing slots at airports. To secure these is the first entrepreneurial step, and the choices made will reflect the strategy being pursued. The entrepreneur in this account may or may not own the resources being deployed – although (as discussed below) it certainly makes sense to assume that the entrepreneur has some residual rights of ownership in order to simplify decision-making.<sup>4</sup>

Now we wish to restrict our notion of resources to the underlying assets of a business, and keep them distinct from the choice of activities that will actually earn revenues. The choice of activities is also an entrepreneurial act, taken as a result of calculations as to likely revenues, given assumptions as to market demand, and the costs involved in setting the acquired resources in motion. The net present value computations will be conducted, by the entrepreneur himself or by a hired finance manager, and together with strategic considerations will determine the activities to be

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<sup>2</sup> On entrepreneurial dynamics there is now a vast literature; see for example Bhidé (2000) or *The Handbook of Entrepreneurial Dynamics: The Process of Business Creation* (Gartner et al 2004).

<sup>3</sup> On this topic, see the recent works by Foss, Foss, Klein and Klein (2007) and Foss, Foss and Klein (2007). I discuss this aspect of entrepreneurial dynamics below.

<sup>4</sup> This approach is consistent with that elaborated by Jarillo (1989) and Stevenson and Jarillo (1990), who likewise place the emphasis on entrepreneurial behavior being oriented towards the capture of resources not currently under the firm’s (or entrepreneur’s) control. This was of course also the emphasis of Schumpeter (1912), where he characterized the credit system of the free-market economy as underpinning the recombination of resources to be found under other firm’s control. Aldrich and Martinez (2001) provide an evolutionary perspective on the processes of entrepreneurship.

undertaken – the routes flown, and the timing and frequency of the flights. The choice of point to point routes would be consistent with a budget airline strategy.

There is a third elemental category of business entity that will be the subject of entrepreneurial choice, and that is the routines that will link the resources put in place with the activities chosen. SouthWest Airlines, for example, adopted a crucial routine consistent with its strategy of minimizing the on-ground time for a plane, requiring the specialization of one member of the ground staff in supervising the rapid emptying of passengers at the plane's destination and rapid refilling to prepare it for its next leg; SouthWest's ability to minimize this time on the ground (and thereby maximize the time spent by the plane in the air, carrying passengers) was the result of its choice of this specialized routine, and as it perfected the routine, so it could be said to embody a strategically significant capability, namely the capability of maximizing air time. Other choices of routines would involve the procedures involved for booking, for check-in, their use of web-based procedures, and so on.

The entrepreneurial dimension to this is provided by the fact that these entities are being assembled for the purpose of creating a new business venture. The resources, activities and routines will be selected by the entrepreneur in terms of their price, availability and consistency with the chosen strategic direction. If resources, activities and routines can be built into a package where they reinforce each other, through capture of systemic effects, then we might say that the entrepreneur has generated a coherent business.

In order to calculate likely operating surplus (profit) the entrepreneur will have to engage in estimations of likely future demand, at a certain price point, and will have to assess the prices of needed resources in light of the goal of making an operating profit some time in the near future. Such calculations might also include an assessment of the total value of the package of resources, activities and routines assembled, so that it might be sold to an incumbent airline, with the entrepreneur walking away with a profit on the whole deal.

How is the entrepreneur to judge the strategic significance of this package of resources, activities and routines? With regard to resources, it is clear that it is not resources on their own that are significant (whether they satisfy BRIO conditions or not) but the resources taken as a package. This is a pure Penrosean view of the firm, as a package of resources, where the entrepreneur seeks complementarities between the resources assembled. The airline just assembled might be used to start a new freight business, and to this end a failing freight business might be acquired. Its resources are bundled with the existing resources, and operating efficiencies are then applied to capture more value from the combined resources than they originally generated individually. This capture of complementarities from the resource bundle may be viewed as the key strategic goal pursued by an entrepreneur.

Then there is a strategic goal to be pursued as the activities are assembled. Here the entrepreneur will be seeking to gain more from the operation of the airline than is put into it, or to capture increasing returns. These are not necessarily technological increasing returns, but operating returns – as when a firm re-organizes its value chain, squeezing out inefficiencies. This entrepreneur building an airline business may introduce a freight arm and then acquire a freight forwarding company, with all its existing activities and routines, and then rationalize them to match those employed in the existing business. Thus further complementarities will be sought in regard to the resources, as well as increasing returns as the activities are rationalized.

Finally the entrepreneur will look to use routines in such a way that their repeated use will generate learning effects, and in this way their operation will come

to embody capabilities. Learning by doing is a dynamic concept that has no counterpart in the equilibrium-based world of the neoclassical theory of the firm.

What we have then is a strategic account of entrepreneurial behaviour that is not circular; one that does not depend on entrepreneurs finding 'market imperfections'; or that is not concerned with capture of rents (or even quasi rents). Instead, we have an account of entrepreneurial endeavours that is concerned with the real entities that entrepreneurs have to acquire in order to build a business, namely resources, activities and routines; an account that is able to generate strategic goals associated with these entities; and is able to offer some insight into why entrepreneurs might choose consistency and coherence in their choices of resource package, activity set and routines – given that one kind of activity set or one kind of routines set will better match the choices made in terms of resources than something else.

Along the way, we have an account of entrepreneurship that generates a dual view of resources and activities (something long pursued in the management and entrepreneurial literature, e.g. by Porter); and that corresponds to actual business practices, in the sense that resources as defined will in general appear on the balance sheet, and activities on the profit and loss statement.

Rents are dispensed with in this account, along with all the metaphysical elaborations like entrepreneurial rents and quasi rents, in favour of a simple notion of profit, earned as residual after the entrepreneur has paid for the use of all resources employed. This essentially simple definition of profit as residual, we owe to Frank Knight, who employed it with an argument about uncertainty to create a sound foundation for entrepreneurship. The entrepreneur puts the resources into motion in conditions of uncertainty, as a calculated gamble (or test of a market conjecture); he or she then generates the returns, and after deducting the costs of the resources employed, is able to claim the residual (capital gains and profits, if positive) or become liable for the losses (or deficit, if negative).<sup>5</sup> There is an inescapable element of residual rights employed here, or ownership, which the more perceptive students of entrepreneurship insist on.

Equipped with such a simple but accurate account of entrepreneurship, we may now elaborate in a way that links the processes described to the literatures emanating from evolutionary economics, from industrial dynamics, and from the property rights perspective.

## **5. Does entrepreneurial activity take place in disequilibrium, or generate disequilibria?**

We know that Schumpeter contrasted his entrepreneur with the operation of an imaginary circular flow, where everything in the economy takes place as it did before. The entrepreneurial act disrupts this flow; the entrepreneur, armed with access to credit, draws resources from their current uses and applies them to new uses, in new activities, and employing new routines or combinations of routines. The revenues generated by these new activities accrue to the entrepreneur, and when summed over all such entrepreneurial activities, drive the economy into an upturn, where fresh

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<sup>5</sup> Harper (1996) engages in an insightful discussion of entrepreneurship as the test of a market conjecture. The problem is that it might not be easy to see just what is the conjecture that is being tested – at least in a multi-product firm. In the case of new product development, the issues are even harder to distinguish.

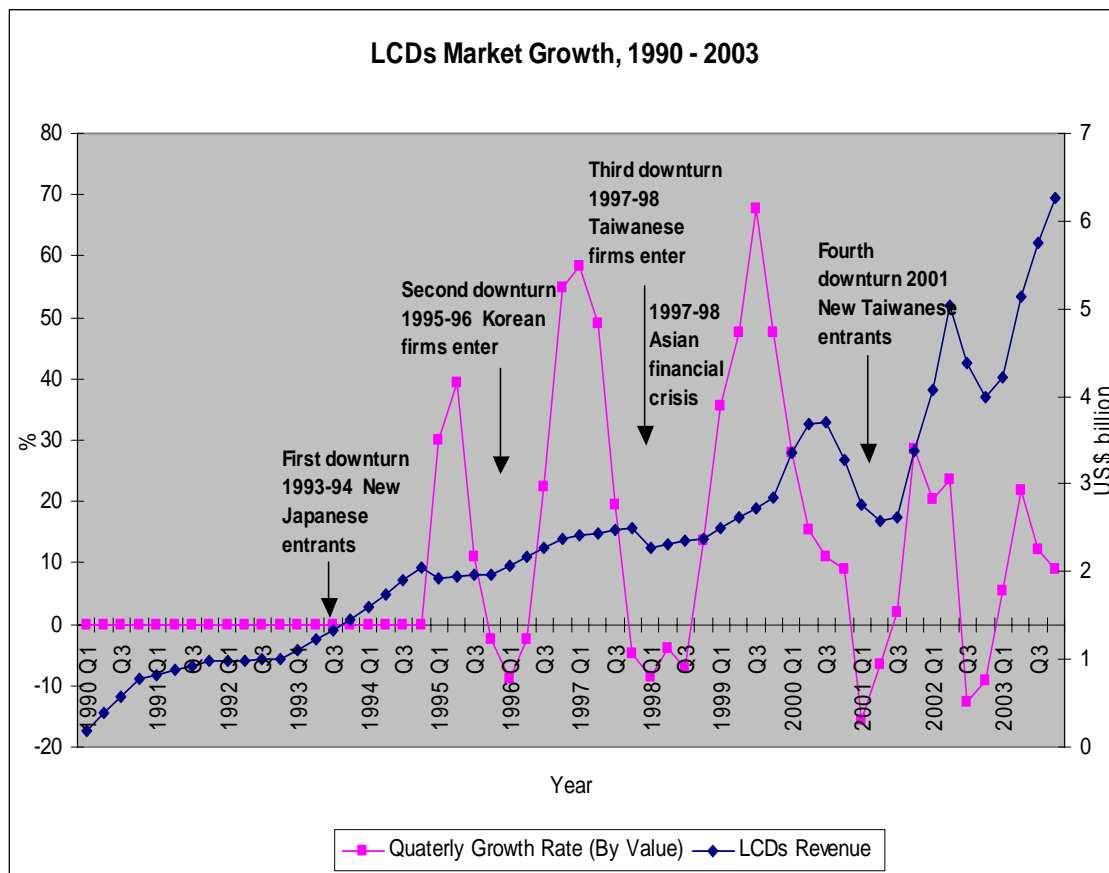
profit opportunities are revealed, prices rise because of competition for resources, and investment rises as entrepreneurs seek to capture the opportunities being generated.

But all this feverish activity results in over-capacity, and as supply exceeds demand in the product market, prices fall, and entrepreneurs are forced to lay off some of the resources they hired, which then lowers the income available to these resources, and the economy goes into a downturn. In the downturn, resources are released and circulated (as firms go bankrupt or are acquired by stronger firms), new firms are enabled to enter the industry, supply chains can be reorganized, and the economy is generally put onto a new and invigorated footing.

This process, so acutely described by Schumpeter in his youthful 1912 masterpiece, *The Theory of Economic Development*, is not only a description of the process of entrepreneurship but also a description of the cyclical economic dynamics of the business system as a whole. This is what is so clearly missing in the accounts of entrepreneurship published in the management literature; one looks in vain for any connection with the dynamics of industries or with those of the economy as a whole.

Chart 1 shows the workings of these dynamics in one important global industry, namely that of flat panel displays, where entrepreneurial initiative has taken firms into this industry in well-timed sequences, using the downturns for entry and the upturns as occasions for capture of profits.

**Chart 1 Growth of the Flat Panel Display industry and its cyclical dynamics, 1990-2003**



Source: Mathews (2005)

By contrast, Kirzner offers an account of the same process but with a very different emphasis. For Kirzner, the entrepreneur is alert to new opportunities, and out of these fashions business ventures that even out economic fluctuations and bring the turbulent economy closer to the ‘circular flow’ imagined by Schumpeter.

So is the entrepreneur driving the economy away from equilibrium, towards disequilibrium, or driving it from disequilibrium, towards equilibrium?

While Schumpeter emphasizes the link between entrepreneurial behavior and innovation, and thus with the creation of disequilibria; and while Kirzner emphasizes the equilibrating character of entrepreneurial initiatives, in the approach I develop here the main effect of entrepreneurial initiatives, whether involving innovation or not, is to create and sustain disequilibria in the economic system. From a strategizing perspective, firms are not interested in whether they are taking the economy towards or away from equilibrium (not that Kirzner claims they are so interested); they are simply interested in creating and sustaining for as long as possible entrepreneurial profits. My point is that these are created and sustained to the extent that the entrepreneurial firm maintains its position away from equilibrium. From such a perspective, it spells death for a firm to actually arrive at a perfectly competitive equilibrium.<sup>6</sup>

A multiple time-frames approach provides a means of resolving the long-standing tension between the Kirznerian/Austrian conception that entrepreneurial dynamics drive the economy through a market process towards equilibrium, and the Schumpeterian conception that entrepreneurial dynamics create disequilibria. I suggest that the Kirznerian approach operates in a shorter time-frame from that of the Schumpeterian, but that *both are operating simultaneously*. Loasby puts the matter succinctly, in the context of a discussion of disequilibrium states in the economy, when he states: “Whereas Kirzner’s entrepreneurs respond to changing data, Schumpeter’s cause the data to change” (1999: 178). Nooteboom (1999) provides an interesting discussion of the same issue, but with a different solution in the form of a “logic of development”, where equilibration is characterized as first-order learning or exploitation, and dis-equilibration as second-order learning or exploration.<sup>7</sup>

In contrast with many of the current approaches to entrepreneurship, emphasizing features such as “entrepreneurial alertness” and the still-prevalent approach of characterizing entrepreneurs in terms of their personal characteristics, an evolutionary perspective on the topic needs to be consistent with a trial-and-error approach to business formation in the face of vast uncertainty. In this sense, as we discuss above, the theory of entrepreneurship can be placed in a Popperian framework, one that emphasizes the entrepreneurial venture as equivalent to a conjecture, and the market processes of selection as equivalent to the testing of a business conjecture and its attempted refutation. From an evolutionary perspective, entrepreneurial failure is just as important as entrepreneurial success. In a setting of industrial dynamics, entrepreneurial initiative is more likely to succeed during downturns rather than

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<sup>6</sup> It hardly needs to be pointed out that at a perfectly competitive equilibrium, firm profits sum to zero; see Knight (1942) for a definitive discussion, where entrepreneurship is ‘saved’ within a rigorous neoclassical economic system.

<sup>7</sup> Kirzner (1999) provides his own reflections on the Schumpeterian entrepreneur. But this is a disappointing discussion, in that Kirzner seems to be working with a rigid conception that the Schumpeterian entrepreneur is “heroic and bold” while no such psychological criteria apply to the Kirznerian counterpart. This somewhat misses the point, and a different approach is adopted in this paper.

upturns – a feature of entrepreneurial dynamics comprehensively ignored in the literature ever since Schumpeter.

From an evolutionary perspective, we may view the entrepreneurial function as essentially a process of *settling on a choice* of combination of resources, in the same way that Calvin (1996) regards thoughts in the brain as the products of a rapid Darwinian process that considers many alternatives only to discard most of them. We see the actual choice made by an entrepreneur; but we rarely see the process of selection in which numerous options are entertained and then discarded. It is the entrepreneur who himself or herself acts as the agent of selection, in making the final choice of *this* combination rather than *that*. And then we witness a further Darwinian process as entrepreneurs place their bets on their resource combinations and strategies for employing them, and perform to the best of their abilities – with the market at this stage acting as the selection device.<sup>8</sup> Or rather we see the market emerging as the vehicle for the Darwinian process, and entrepreneurs' resource-combination bets being tested for their fitness to the current operating conditions, and weeded out accordingly.

Over a longer time-frame, the entrepreneurial process works its way through the market, and one entrepreneur places one bet in terms of a particular strategy, while another places a different bet in terms of a different strategy. There are also the incumbents, who have made their bets, and are defending their position as best they can, against the entrepreneurial challenges. These entrepreneurial processes then work themselves out in the form of industry dynamics, with firms electing to enter an industry, or trying to do so, and electing to exit if things are too tough, or finding themselves destroyed in the process. This is the domain of Schumpeterian “creative destruction” – an ugly enough process if one is caught in it (e.g. as investor, or worker in a destroyed firm) but absolutely essential if the system as a whole is to maintain its adaptability and viability.

## 6. Entrepreneurship as discovery

In Kirzner's account of the entrepreneurial process, almost all the emphasis is placed on the process of ‘discovery’ of business opportunities – to the point where discovery comes to seem more important than the actual founding of new ventures. Whether the entrepreneur can be said to ‘discover’ such opportunities, implying that they were already there, or whether the entrepreneur takes a situation and employs foresight to calculate whether a business opportunity can be said to exist or not, would seem to be merely a matter of words. Some in the Austrian tradition prefer discovery, and some foresight, and some others judgment (to be discussed in a moment). My point is that these verbal distinctions should not be allowed to get in the way of the main issue, which is how new business ventures are started.

The scholars associated with the Copenhagen Business School (Foss, Foss, Klein and Klein 2007) have entered this debate, and characterize the entrepreneurial act in terms of judgment as regards the possible attributes of resources set in business motion. They argue that alertness and discovery must be formulated with respect to existing opportunities, while judgment must perforce be linked to the creation of new

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<sup>8</sup> As Aldrich and Martinez (2001) put it, in their discussion of the evolutionary dimensions of entrepreneurship: “Interaction between entrepreneurs' chosen strategies and the particular environmental forces they face determines entrepreneurial success or failure” (2001: 50).

opportunities. This might be stretching a point. But they are certainly on solid ground, as it were, in arguing contra Kirzner that entrepreneurship generally involves making a judgment as to how to utilize resources that are owned, and over which no negotiation has to take place – as would be the case if we argued that entrepreneurs assemble various kinds of ‘entrepreneurial characteristics’ such as cognition and pay each of them a rent for their services. Foss et al then go on to argue that entrepreneurship is essentially a process of discovering (here they go back to Kirznerian phraseology) new attributes of the capital assets. This they argue goes beyond the conventional view that entrepreneurship is concerned with assembling superior combinations of capital assets with ‘given’ attributes, and takes entrepreneurship into the realm where the entrepreneur may be experimenting with various combinations of heterogenous capital assets in order to discover new attributes.

Again an example might help. I hope I will be forgiven if I return to the case of the coffee shop, where our entrepreneur has given up hiring a resource called ‘entrepreneurial cognition’ because in the end it didn’t make any difference to the choice of productive resources to be made. Now let us suppose that the entrepreneur ‘discovers’ that the special pastry being brought in has a low Glycaemic Index (its sugar content is absorbed slowly) and so it is ideal for clients who are experiencing mature onset diabetes. This is quite unexpected – in this sense it is a discovery – but it certainly attracts customers. The special pastry recipe is a resource that turns out to have a very convenient attribute that generates large profits for the coffee shop.

So if this example can be relied upon, then there would appear to be no problem in characterizing the entrepreneurial process as partly involved in assembling new resource combinations, and partly in discovering new attributes of the resources already assembled. It is worth recalling that the coffee shop entrepreneur has to allocate revenues towards such discoveries (in the form of what might best be called R&D expenditures); they will not arise in the absence of a process of active search.

Are Foss et al on solid ground when they claim that entrepreneurship principally concerns the discovery of new attributes, and is a process that goes on all the time? No doubt it does – but then we call it strategic adaptation. I think it is best if entrepreneurship as a term be reserved for the creation of new business ventures (either new businesses or new line of business within an established firm). To simply equate entrepreneurship with strategy, or strategic adaptation, as suggested by Foss et al, amounts in my view to salvaging entrepreneurship from neoclassical economics only to surrender it again to strategy. It has to be something distinct – and as a Schumpeterian, I hold that its distinctness lies in its being associated with the creation of new lines of business, which allows us to account for the renewal and survival of capitalism. It would be hard to make such a claim for the discovery of new attributes of existing resource bundles.

## **7. Concluding remarks**

Drawing these threads together, we may define strategic entrepreneurship as the activity that drives the economy in new directions, through recombination of resources, activities and routines, and the entrepreneur as the economic agent who lacks resources (but knows where to find them), who becomes aware of profit opportunities, and acts to realize these opportunities through resource mobilization and activation. The goal is entrepreneurial profit, which we see as the prime motivator of strategizing behavior, and indeed the driving force behind economic dynamics.

The entrepreneur, so conceived, is an endogenous source of change, or development, in the economic system. This creates the possibility of endogenously induced growth and development, as opposed to the static conception that sees all change as static adjustment to an external shock – which is the mainstream economizing perspective. Thus the definition encompasses a Schumpeterian notion of innovation as recombination; entrepreneurial dynamics; entrepreneurship as the starting of new lines of business, and hence as central to strategizing; increasing returns, externalities, path dependence; technological systems and the shaping of production by demand; evolutionary dynamics and the generation of variety. It thus brings our theory of strategizing (Mathews 2006) into conformity with our picture of how the economy grows and develops, through its internally generated industrial and evolutionary dynamics. In particular, with entrepreneurship defined in this manner, I am able to close the framework offered: *entrepreneurial behavior creates the disequilibria within which the strategizing firm operates.*

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