

Business Cycles and Entrepreneurs: A Heterogeneous Adjustment Process

Abstract: This paper takes the concept of heterogeneous entrepreneurs (Evans and Baxendale 2008) and investigates how higher quality entrepreneurs are able to adjust their structures of production and economic calculation in face of business cycles to avoid malinvestments and other ill effects that result from credit expansion. In an attempt to overturn opposing views of the Austrian Business Cycle Theory and shed insight on how entrepreneurs can avoid the harmful effects of credit expansion, we look to show that production structure adjustments are different across industries depending on the specificity of the good produced, or how lengthened the structure is. We make the additional claim that the entrepreneurs in charge of the adjustment process have a thymological experience, or specific understanding, that can be relied upon for making the necessary changes in the structure of production to maintain profitability through the business cycle.

Introduction

Austrian economics has laid out the most definitive argument against credit expansion and business cycles. The theory explains a cycle of booms caused by credit expansion and a lowering of interest rates that eventually leads to busts as a correction process takes place. Austrian theory further explains that business cycles can never be predicted with certainty as to when the actual event will take place. This being said, theory does allow us to identify a boom in its present state, and anticipate when the bust is likely to occur.¹ There are several indicators of a boom's existence: low real interest rates, rising gold prices, money supply growth above trend levels, lending above trend levels, unemployment below natural rate, and savings rates below trend levels. With these "easily identifiable" indicators of a boom, the question might be asked why entrepreneurs simply do not recognize these features and integrate them into profitability calculations. This is the question Bryan Caplan (1997) raises when he maintains the "rational expectations" criticism—one of many criticisms against Austrian Business Cycle. Caplan writes:

Given that interest rates are artificially and unsustainably low, why would any businessman make his profitability calculations based on the assumption that the low interest rates will prevail indefinitely? No, what would happen is that entrepreneurs would realize that interest rates are only temporarily low, and *take this into account*. [Emphasis in original]. Quoted originally in (Engelhardt 2012).

¹ An in depth explanation of the Austrian Business Cycle theory will not be given in this paper. Only a sufficient explanation will be given to understand concepts set out in subsequent sections. Reference Mises (2009 [1912]) and Hayek (2008 [1935]) for the theory in its original form; it has changed very little since its conception.

One particularly devastating result of business cycles is the distortion of capital values, which make it difficult for entrepreneurs to identify profitable lines of production and investment opportunities. Caplan fails to recognize this as he assumes production can readily be adjusted to account for predictable capital variation. He believes the entrepreneur (or businessman) can recognize the extent to which his capital is artificially overvalued and should be able to make profit calculations based on the arbitrary increase in value.

Lucas Engelhardt (2012) makes the correct distinction that modern macroeconomists, critics of the Austrian approach, ignore that capital is necessarily heterogeneous. This is important in explaining the point momentous to this paper that entrepreneurs must be of a heterogeneous nature as well, varying in ability. The question we pose and look to answer is: given the fact that entrepreneurs of certain ability can predict business cycles, how are they able to adjust (maintain) real economic calculation and structure of production without malinvestment to achieve profitability throughout the business cycle? Due to heterogeneous capital and heterogeneous entrepreneurs, firm structure adjustments are certainly different across industries depending on the specificity of the good, and how lengthy the production structure is. Similarly, there is a certain extent of specific understanding the entrepreneur possesses that is figured into his ability. This reemphasizes the point that only those entrepreneurs of a certain caliber are able to recognize the boom, and adjust their own firm structure accordingly to identify profitable investment opportunities despite distorted capital values.

Heterogeneous Entrepreneurs and Characteristics

By starting with a brief understanding of the business cycle—credit expansion leads to an increase in the money supply which leads to a decrease in interest rates—we can see the active role entrepreneurs play. The increase in loanable funds for the entrepreneur is not distinguished

as being any different than a reduction in consumption, or an increased in savings. As a result, entrepreneurs invest more resources in long-term projects than they otherwise would, given a real level of loanable funds. This causes a severe contradiction in the structure of production as entrepreneurs are using resources that lengthen their structure of production while consumption remains unchanged. Adjustment in the structure of production occurs when interest rates increase, and the long-term investments the entrepreneurs began are revealed to be unprofitable given the present circumstances.

Being cognizant of business cycles harmonizes with the profit-loss system's ability to weed out entrepreneurs of a lesser quality (Engelhardt 2012). Evans and Baxendale (2008) make the claim that the result of business cycles is the revealing entrepreneurs being "wise" or "fools." The authors suggest that it is not "irrationality" on the part of market participants during the business cycle—rather the expansion of credit draws in "marginal" entrepreneurs (Engelhardt 2012). As a result of credit expansion, there are more loanable funds available and marginal entrepreneurs receive the funds necessary to invest in projects. From this, we assert the average quality of entrepreneurs declines during the boom, though this is only realized as an *ex post* fact. The term "fool" comes from the adjustment process where we see incredible malinvestment on the part of the marginal entrepreneurs being revealed through liquidation.

The question that goes unanswered in this analysis is what happens to the entrepreneurs of higher quality, or "wise" entrepreneurs? Engelhardt suggests (2012, p. 183):

... those entrepreneurs that are high quality and foresee the path that the economy will follow have an incentive to get out of—or at least more strictly *limit* their participation in—those industries that are dependent on the persistence of the boom, especially as the boom continues and the crisis looms. [Emphasis added]

With regards to capital goods, it is an interesting area of the structure of production to examine because of their price increases caused by the investment boom. The entrepreneur is in a unique

position to identify the overvaluation and capture the benefits, but in doing so, decreases the extent to which his firm can produce. Engelhardt (2012) comments on the point Evans and Baxendale (2008) make about capital goods not being able to be “shorted” in the same sense financial instruments can be, but suggests that the existing capital goods could be sold by the owners who recognize an overvaluation and the impending bust (2012, p. 183). This offers the question of how productive wise entrepreneurs actually are during a boom if they sell off capital goods when they are overvalued to capitalize on the boom, and then await the bust to resume production activities. We look to answer this question in subsequent sections.

We rely heavily on this assumption of heterogeneous entrepreneur quality, but there has not been any description about what specifically makes him of a more superior quality than other entrepreneurs of the same industry. Engelhardt (2012) presents evidence for their existence when he gives an empirical analysis of the housing market during the 2008 downturn. This is helpful in further proving the concept of heterogeneity, but he does not give much theoretical analysis of the characteristics that an individual entrepreneur of a higher quality possesses. Frank Knight admits that men “do actually strive to anticipate the future accurately and adapt their conduct to it” (1964 [1921], p. 241). We offer two quotes at great length from this esteemed work highlighting this concept. He writes (p. 241-2):

...(1) Men differ in their capacity by perception and inference to *form correct judgments* as to the future course of events in the environment. This capacity, furthermore, is far from homogeneous, some persons excelling in foresight in one kind of problem situations...(2) Another, though related, difference is found in men’s capacities to *judge means* and discern and plan the steps and adjustments necessary to meet the anticipated future situation. (3) ...variation in the power to *execute* the plans and adjustments believed to be requisite and desirable. (4)...diversity in conduct in situations involving uncertainty due to differences in the amount of *confidence* which individuals feel in their judgments when formed and in their powers of execution....[emphasis and numbering in original]

We see in Knight's work here that he offers clear points that describe a concept of heterogeneous entrepreneurial quality. It is evident that given the ability to reap part of a profit earned, an individual is going to look to make the most economizing decisions regarding production. We argue that this includes any agent the capitalist hires to organize given resources in a manner that can generate the greatest return. We look to Knight as he describes this event (p. 243):

Judgment or foresight and the capacity for planning and the ability to execute action are each the product of at least four distinguishable factors, in regard to which the faculties in question may vary independently. These are (a) accuracy, (b) promptness or speed, (c) time range, and (d) space range, of the capacity or action...it is evident that accuracy and rapidity of judgment and execution are more or less independent endowments. The third refers to the length of time in the future to which conduct is or may be adjusted, and the fourth to the scope or magnitude of the situation envisaged and the operations planned.

This section is dedicated to the description of terms commonly used in the discussion of entrepreneurship and looks to provide an explanation of what is superior about the "wise" entrepreneur. As will be revealed, several of the qualities that we give significance to are only developed as a result of being active in the activities of the firm. For this reason, the qualities are not necessarily transferable to other industries due to the specificity of the traits as they are developed by physically organizing particular means of production. We do admit that an entrepreneur of a higher quality may exceed in other industries given time to adapt to the new environment, but the skills he develops in one particular industry will not immediately help in another.² Further, these terms will be used often in subsequent sections, so properly defining them as to how we understand them is necessary for readers to fully grasp the points being made. Terms include: anticipation, knowledge, appraisalment, and economic calculation.

Knowledge, in regards to the entrepreneur, is meant as a type of specific understanding unique to the entrepreneur. Entrepreneurs of a more superior nature will tend to have a greater

² One might test this claim by looking at the success rates of hired CEOs who move from one industry into a sufficiently different industry (i.e. highly technical, capital-based production structure to a simplistic, labor-based production structure).

extent of understanding of their structure of production allowing them to more accurately appraise capital values in the event of a business cycle where there is distortion in market prices. This is similar to the economic principle of specialization, where individuals become more adept in their field, the longer they labor in it. Similarly, the longer an entrepreneur is operating within his field and with the same structure of production, the more knowledge he is likely that is not transferable to others. Jesús Huerto de Soto uses the term “practical knowledge to describe such knowledge. This knowledge is any that cannot be presented in some formal manner; it is instead progressively acquired by the subject *through practice* (2010 [1992], p. 20). For example, an entrepreneur might know the exact production process that maximizes efficiency for reasons he cannot explain or convey to others.³

A concept that is necessary to mention here is the one Ludwig von Mises develops in his book, *Theory and History* (2007 [1957]), thymology. Defined as, “the knowledge of human valuations and volitions” (p. 265), thymology can “establish the fact that certain traits appeared in the past as a rule in connection with certain other traits...it can never know in advance with what weight the various factors will be operative in a definite future event” (p. 274). For the entrepreneur, this means he is able to obtain knowledge of his firm and production structure simply by being proactive in its development. To Mises (2008 [1949], 791-2)

It may be that businessmen will in the future react to credit expansion in a manner other than they have in the past. It may be that they will avoid using for an expansion of their operations the easy money available because they will keep in mind the inevitable end of the boom. Some signs forebode such a change. Quoted originally in Salerno (2010 [1995]).

We see that entrepreneurs base decisions about the future on facts realized in the past, and recognize that future conditions of a particular situation are likely to emulate situations of the past with similar conditions. The entrepreneur, who is actively involved in the structure of

³ For more on what we mean by knowledge here, see de Soto (2010 [1992], pp. 20-5)

production, constantly adjusting it to maximize efficiency, will come to know and understand it much better than an entrepreneur who is not as motivated for such efficiency. The former entrepreneur is obviously of higher quality and it reflects this fact because he is 1. More likely to have been invested in when loanable funds were at a normal level, but 2. More likely to be able to adjust his structure of production due to his greater understanding of what adjustments to make in order to maximize efficiency in face of business cycles.

Anticipation is another component to an entrepreneur's ability; we define it as his being able to *identify changes* in the market and understanding the likely effects, and recognize the necessity of taking action in order to maintain efficiency. Anticipation does not mean much without knowledge however. Joseph Salerno (2010 [1995]) writes (pp. 229-30):

Nothing but a perfect familiarity with economic theory and a careful scrutiny of monetary and credit phenomena can save a man from being deceived and lured into malinvestments. Certainly, thymological analysis reveals to the economist that the assumption that entrepreneurs in the contemporary world possess this prerequisite of rational expectations, that is a grasp of the Austrian theory of the business cycle, is patently false and would lead to erroneous theoretical deductions.

An entrepreneur can identify (anticipate) a bubble is developing, but if he has no knowledge of how to react, this ability to anticipate does him no good.

This definition is accommodating to the subscribed theory of heterogeneous entrepreneur quality. The theory of business cycles that allows us to identify their presence is becoming more widely recognized, yet entrepreneurs do not know how to adjust structures of production accordingly, and thus fall victim to the bust. The opposite scenario is true as well—an entrepreneur who has *knowledge* of how to adjust the structure of production, but does him no good if he does not have the ability to *anticipate*, or *identify changes* in the market, still errs.

In regards to Mises's point on entrepreneurs identifying the link between malinvestments and low interest rates caused by credit expansion, Salerno (p. 229) writes:

...comprehending these links requires much more recondite knowledge and a more rigorous intellectual effort than that required for grasping the connection between the running of the printing presses and rising prices...even if the entrepreneur learned the basic lesson of avoiding an expansion of his operation when interest rates initially dropped to uncommonly low levels, he would still be enticed into malinvestments as the inflationary boom progressed.

Thus, even superior knowledge and anticipation is not sufficient. Even if the entrepreneur has correctly anticipated the business cycle, and has knowledge of how his firm is affected by it, if he cannot correctly *appraise* real capital values to identify overvaluations, he will still be “enticed into malinvestments”.

Appraisement is the entrepreneur’s ability to assess the value of their capital structure and determine the possibility of future profit and equity; it looks at what accounting statements will look like in the future. The ability to appraise the real value of different capital goods by looking at the discount marginal revenue products (DMRP) is necessary in order to identify overvaluation of capital goods that occurs as a result of investment booms. It is an important note that appraisement must clearly be distinguished from valuation. Appraisement does not rely on subjective preferences as valuation does, but instead is the anticipation of an *expected* fact.

Appraisement aims at establishing what prices will be paid for a particular good on the market. Mises notes that although valuation and appraisement are closely connected, the valuations of an individual buying and selling rely upon appraisement and market prices. He writes, “It is necessary by and large to be familiar with the prices of those goods which one would like to acquire and to form on the ground of such knowledge an opinion about their future prices” (2008 [1949], p. 329). Although the valuation of goods aims at different methods of satisfying ends, it does so by first going through the appraisement process of the structure of market prices. Salerno (2010 [1995]) makes the following point (p. 222):

Entrepreneurial appraisements of future price structures are the outcome of a specific understanding of future market conditions that must be actively produced by deliberately

bringing one's thymological experiences and insights to bear on information about past prices. Such "knowledge" about future profit opportunities is, therefore, emphatically not embodied in the objective (disequilibrium) price signals of the immediate past; its source is rather internal, resting on thymological insight and impinging on external events only through the actions it motivates.

Business cycles distort capital values, and make investment decisions difficult for this reason, but entrepreneurs of a higher quality are able to appraise real values of capital based on their discounted marginal revenue products, or "the amount [the factor] specifically contributes to the firm's revenue" (2009 [1962], p. 603), and can either choose to capitalize on the overvaluation, or continue making proper investment decisions to increase, or maintain the efficiency of production. Salerno notes, "...the entrepreneur may earn increased net income from superior technological knowledge or from the 'differential rent' yielded by relatively more productive factors *he alone discovers and knows how to employ more productively*" (2008, p. 201).

Lastly, *Economic Calculation* is the entrepreneur's ability to use market prices to speculate the possibility of generating a profit and adjust the structure of production according to customer wants. He does so by assessing past profits and equity. It looks at the balance statements of the past to realize equity. Similar to the problem business cycles have on an entrepreneur's ability to appraise capital goods, business cycles make economic calculation difficult as certain investment options in particular lines of production appear profitable to the entrepreneur, and only the bust reveals them to be malinvestments. We rest here on our previously suggested notion of thymology and the development of specific knowledge. Because prices are a historical fact, an entrepreneur looks to his specific knowledge of past prices to make decisions in the present that do not impair the future capacity to produce. Mises admits that precision in economic calculation is unattainable due to inevitable monetary changes (2008 [1949], p. 225). Entrepreneurs of a higher quality are able to still engage in economic calculation to some extent to identify profitable investment opportunities.

Entrepreneurs and Capital Finance

This section is devoted to the discussion of the different types of entrepreneurs that exist within society. Entrepreneurs by their very nature are bearers of risk and uncertainty. To that end, all humans are entrepreneurs any time they act. For the purposes of this paper, we will focus on two particular areas of entrepreneurship—economization within the firm and financing of firm activities. We will call the former the entrepreneur or businessman because he assumes the functions that modern economics says belong to the “entrepreneur”; the latter will be called the capitalist, or the one who provides the capital necessary to engage in production and make investment decisions. Only the entrepreneurs of the highest quality, the “wise” entrepreneurs, receive the necessary loanable funds to engage in production decisions. The marginal entrepreneurs are deemed “high risk”, and the capitalist, acting entrepreneurially, does not want to bear the higher risk of lending funds to lesser quality entrepreneurs, the ones revealed to be “fools”. The capitalist organizes his “investment” in the “wise” entrepreneur with an incentive structure that encourages the active economization of the capitalist’s invested resources. By doing so, the entrusted entrepreneur has the incentive to constantly be looking for ways to maximize efficiency to earn the greatest return on a given investment of resources.

Though the entrepreneur’s role is vital for the production of goods in society, theory cannot ignore the role the capitalist plays in the production process. First and foremost, we must recognize that it is capitalists who really decide what gets produced in society, not the entrepreneurs receiving finance as is commonly asserted. Because of the division of labor, we identify an individual playing the role of capitalist and another playing “entrepreneur” in society, or else each individual would be forced to produce their own subsistence, and be reduced to a primitive standard of living. Thus, we have the capitalist who allows for the entrepreneur to

pursue investment and production decisions without reducing his own consumption to provide the necessary savings. Peter Klein (2010) writes (pp. 38, 46):

Because the owner, and not the manager, is the ultimate decision-maker, the Austrian theory of the firm should comprise two elements: a theory of investment...and a theory of how investors provide incentives for managers to use these resources efficiently...Failure to understand the entrepreneurial role of capital providers plagues the mainstream literature in corporate finance and corporate control.

It is right to make the distinction Joseph Salerno highlights in regards to the actual nature of the entrepreneur. He criticizes Austrian economics for adopting a Kirzenerian concept of the entrepreneur as a “pure decision-maker possessing superior ‘alertness’ but owning no resources. This pure entrepreneur earns profits by ‘discovering’ and seizing objectively existing but previously unperceived opportunities to arbitrage price discrepancies...” (2008, p. 189). Salerno acknowledges the point made by Henry Hazlitt (1974), “Hazlitt noted that someone taking risks using other people’s capital ‘is merely a hired manager.’ It is not enough for an entrepreneur to be alert and perceive opportunities...the entrepreneur must be a capitalist plus...” (2008, p. 190). Further, it is “un-Austrian” to conceive of an entrepreneur who owns no capital.

Mises describes a similar concept he calls the “pure entrepreneur,” which Kirzner uses as a framework for his theory of production. Mises however, uses this explanation of the entrepreneur only as an imaginary construction to describe functional distribution, or the breakdown of the individuals in the production of a good (i.e. the laborer, capitalist, and the “entrepreneur”). Mises does this to explain the principles of factor pricing, and of the nature and source of profit and loss. (Salerno 2008, p. 192). This cannot be used as a framework to develop further theory because within a production process, one particular individual is likely to take on multiple production functions. Salerno contrasts this imaginary construct of a pure entrepreneur, one that simply directs resources, but does not own them, with the very different, but commonly mistaken, concept Mises called the promoter-entrepreneur, which Salerno redefines as the

integral entrepreneur (2008, pp. 192-205). Mises makes the definitive point that the pure entrepreneur

...remains propertyless for the amount of his assets is balanced by his liabilities. If he succeeds the net profit is his. If he fails the loss must fall upon the capitalists, who have lent him the funds. Such an entrepreneur would, in fact, be an employee of the capitalists who speculates on their account and takes a 100% share in the net profits without being concerned about the losses... To the extent that the losses incurred cannot be borne out of the entrepreneur's own funds, they will fall upon the lending capitalists, whatever the terms of the contract may be. A capitalist is always virtually an entrepreneur and speculator. (2008 [1949], p. 254). Originally quoted in (Salerno 2008).

Salerno continues and emphasizes the same point Mises makes, but notes that there are different types of entrepreneurs that inevitably come about due to the levels of uncertainty individuals are willing to bear. He writes (p. 195):

In practice the man who achieves such a status [promoting oneself into a position of organizing and directing the factors of production] in the market economy must be a capitalist and property owner, although not all capitalists are integral entrepreneurs in our sense; the latter *bear* uncertainty as an inescapable, ancillary cost—in addition to abstention from present consumption—of earning interest on their invested capital.

Mises explains that the pure entrepreneur's balance sheet reflects assets equaling liabilities, and having no equity. What this ignores is the possibility for the hired manager to build equity through successful entrepreneurial activities. At first, a loan from any financier will reflect the suggested balance sheet, but once profit is earned and reinvested into the production structure, the entrepreneur begins sharing in the equity being built by his ventures. We believe there is a certain autonomous nature to the two actors being discussed. Financial markets allow capitalists (principles) to provide funds to a firm and its operators without ever interacting with the entrepreneurs (agents) overseeing the production and investment decisions of the firm.

Moreover, publically traded companies allow for multiple capitalists to provide partial "funding" to a respective company.⁴ The analysis that is left unexplained by the current theory is how the

⁴ We use the word "funding" lightly here because companies that are selling company stock are already established, and are not necessarily seeking funding in the same sense we understand an entrepreneur looks to the capitalist for

capitalist and the entrepreneur individually respond to a business cycle, and how their actions affect the other.

We still believe there can be such thing as a propertyless entrepreneur, but not in the sense Kirzner means. By propertyless, we simply mean the scenario Salerno emphasizes that “all capitalist-investors are not entrepreneurs in the narrower, less precise sense. This is why the market is always full of capitalists anxious to find the most *promising employment for their funds*” (p. 195, emphasis added). The outlet for their investment is the more superior entrepreneurs we discussed in the previous section. This claim surrounding hired managers, and their inability to act entrepreneurially, is not entirely correct. We acknowledge that the manager provides no resources of his own, and has no capital goods at his disposal, and looks solely to the capitalist (financier) to provide such goods. Where the capitalist bears the uncertainty in abstaining from consumption to invest in an opportunity that earns him a return, the hired manager bears the uncertainty of his reputation as an investment opportunity. So long as he is profitable, he maintains his ability to appeal to capitalists as a viable option for their resources.

Adjustments during a Business Cycle

Up until this point we have been using the word “entrepreneur” to describe the individual who is the individual adjusting the structure of production in face of change (i.e. a business cycle) in order to maintain, or even increase profitability. Although this term is perfectly suitable to describe such an individual, Mises acknowledges broadness of the term and suggests employing another term, “promoter,” which we shall use in order to understand the particular role of the entrepreneur we are specifically interested in. He defines it in a way that implies our

investment. Furthermore, it is no longer entrepreneurs per say that are being invested in, but rather a company name that earns a reputation for itself by making wise production and investment decisions.

heterogeneous entrepreneur quality, and aids in our understanding of how promoters are likely to react differently during a business cycle. He writes (p. 256):

...Economics cannot do without the promoter concept. For it refers to a datum that is a general characteristic of human nature, that is present in all market transactions and marks them profoundly. This is the fact that various individuals do not react to a change in conditions with the *same quickness* and in the *same way*. The *inequality of men*, which is due to differences both in their *inborn qualities* and in the *vicissitudes of their lives*, manifests itself in this way too. There are in the market pacemakers and others who only imitate the procedures of their more agile fellow citizens....The driving force of the market, the element tending toward *unceasing innovation and improvement*, is provided by the restlessness of the promoter and his eagerness to make profits as large as possible. [emphasis added]

The promoter-entrepreneur that Mises explains is a foil to the imaginary construction of the entrepreneur he describes to explain functional distribution. He emphasizes the importance of property ownership on the part of the entrepreneur in order to bear the uncertainty of allocating resources. Joseph Salerno offers a new term due to the confusion surrounding Mises's dichotomy of the two entrepreneurs. He renames the promoter-entrepreneur the "integral entrepreneur" and explains his role to be restricted to

the actions of those who are markedly superior in these abilities [to foresee and swiftly and efficiently adjust their actions to changing conditions] and who deliberately seek to earn their livelihood by risking their property in an endeavor to adjust production to the changes they forecast in the market data.⁵ (p. 194)

Frank Fetter (1915) makes the point that there are clearly two types of these entrepreneurs: the active and the passive. He makes this distinction with regards to the concept of "investment profit", which he defines as the income attributable solely to the active capital investment in the particular enterprise; the amount (of investment profit) is peculiar to each business and indeed to each investment. The two types of entrepreneurs he differentiates between is the "active

⁵ Salerno (2008) gives great detail on the origin of the concept of entrepreneurship as it has developed in Austrian Economics. He recognizes that even from Menger there was this idea of the integral entrepreneur being skewed in modern Austrian literature. We acknowledge this contribution and criticism to modern Austrian theory, and use especially the ideas he offers surrounding Frank Fetter.

capitalist” and the “passive investor” in order to determine the extent of investment profit because he explains there to be

a dual character in investment profit; it is a capital-income and a labor-income combined. The distinctive feature of investment profit...is precisely this excess (deficit) of income in active-capital as compared with the normal prevailing rate of time-price, which can be secured by the most conservative passive investor. It is the hope of income *more than* ordinary interest, that is the inducement to active capitalists to assume the risk. (p. 345)

This distinction is necessary to understand the likely adjustments to take place in the event of a business cycle. An active entrepreneur is likely to maintain a close relationship with his investment (i.e. the manager), and even may be working closely with him as is the case of venture capitalists. A passive entrepreneur invests conservatively and typically does not see his investments all the way through a business cycle. The passive entrepreneur, if classified as a “wise” entrepreneur, is likely to capitalize on the investment when goods are most overvalued, and as a result, decapitalize the hired manager altogether, or at least significantly withdraw investment funds to the point that production must cease.

In order to understand the autonomous nature of the capitalist and entrepreneur, and how they are likely to react to business cycle conditions, we must first recognize the different relationships that are likely to exist. Because we rely on the concepts of heterogeneous entrepreneurial quality and heterogeneous capital, we must necessarily introduce the concept of heterogeneous firm structures.⁶ As previously stated, adjustments in face of a business cycle are likely to differ across industries depending on the specificity of the good, the number of capital goods required, etc... (i.e. what the production process and firm structure ultimately are).

Salerno makes the same distinction when he highlights Rothbard’s concept of the “decision-making function” and explains it to be “specific to each firm as it is an inalienable property of

⁶ Klein, Klein, et al. (2007) present a compelling discussion of entrepreneurs and the organization of firms with great emphasis on heterogeneous capital.

the owner's personality....Given that decision-making ability is idiosyncratic and non-separable from the individual intellect, it differs from owner to owners and generates unequal rents with no tendency to equality" (2008, p. 204-5). Plainly speaking, the relationship that exists between a capitalist and hired manager is never to be the same, and can only be generalized into different categories to lay out a proper theory to explain production structure adjustments during a business cycle.⁷ It is because there is an inevitable limit to an owner's individual ability and knowledge surrounding production processes that he looks to entrust his resources to a hired manager who is more superior in technical capacities. We consider two specific relationships that are general, but distinct in explaining the different adjustment processes likely to exist: an active capitalist-hired manager relationship and a passive investor-hired manager relationship.

The active capitalist-hired manager relationship is a scenario where a capitalist gives resources to a hired manager to organize them into a production process to generate a return greater than initial investment. The capitalist hires the manager, and allows him to act entrepreneurially by granting quasi-property rights. The capitalist believes the manager is able to organize resources in a fashion that generates a return greater than would otherwise be received if the capital were left alone or invested in other ventures. The capitalist however, does not leave the manager alone to organize the production process, but is "active" in production with the manager. This relationship reflects that of some venture capitalist-sole proprietors and Limited Liability Partnerships. The essential difference is the extent of uncertainty borne by the capitalist

⁷ As we might begin to imagine the possible entrepreneur-capitalist relationships to exist (i.e. Sole-proprietor-venture capitalist, sole proprietor-angel investor, LLC-venture capitalist, LLP-venture capitalist, and so on), we see the great detail that can be given to lay out the different possibilities for adjustments to a business cycle. We merely suggest this complex idea as an important area of additional research. In order to fully adopt the framework laid out here, specifically heterogeneous firm structure, one must handle the different structures individually. For the purposes of this paper, and length restriction, we shall simplify it to two scenarios using Frank Fetter's (1915) descriptions: active capitalist-hired manager and passive investor-hired manager.

to continually be active in the production process because he anticipates a return that exceeds the normal or prevailing rate of interest.

Mises makes a point about capitalists and hired managers that describes the active entrepreneur fittingly. He writes, “A successful corporation is ultimately never controlled by hired managers... The marvelous achievements of corporate business... were accomplished by people who were connected with the corporation by means of the ownership of a *considerable* part or of the greater part of its stock...” (2008 [1949], p. 303-4).⁸ Rothbard makes the similar point that the firms, even on the margin, are likely to produce a “positive decision rent”. If this were not the case, then the firm’s owner would be more active in the firm’s activities,

...making and bearing responsibility for ultimate decisions about his property and choosing the top managers—and yet receiving no return... But there will be no reason for the owner to continue performing these functions without a return. He will not continue to earn what is *psychically* a negative return, for while he remained in business he would continue to expend energy in ownership while receiving nothing in return (2009 [1962], p. 604). [emphasis in original]

In the event of a business cycle, because the relationship is close and interactive, the decisions made are likely to reflect discussions regarding the best modes of action. By saying this we mean that the hired manager, acting as an entrepreneur due to granted property rights, and the capitalist work together to economize resources to maintain efficiency and profitability even through the bust. The manager is looked to for his superior abilities to communicate effectively the proper course of action to make production decisions that do not lead to malinvestment or overinvestment that squanders the capitalist’s resources. The capitalist meanwhile, is exercising his own abilities in other ventures to aid the entrepreneur in proper production decisions, such as those he develops from relationships with other hired managers.

⁸ Originally quoted in (Salerno 2008). Salerno also offers an interesting footnote to be referenced regarding Mises’s attributing the emergence of an omnipotent managerial class to interventionist policies (p. 203).

As explained before, exact adjustments will vary across different industries, but are likely to be similar across firms of the same industry due to the nature of the capital goods involved having similar production processes. Capital intensive and capital specific industries such as machinery and medicine should abstain from lengthening the production structure due to the high risk nature of this area of investment. Often, these investment decisions are revealed to be malinvestments and are sold at less than purchase values in the adjustment process. Also, one should avoid investing in lines of production that appear especially profitable. It will likely be shown that any further investment into these lines of production prove to be overinvestment, which causes capital to remain underutilized. The idea that capital goods cannot be readily sold for the value of their investment is essential for understanding the nature of superior entrepreneurial ability. The more specific a capital good is, the less liquefiable it is, making malinvestment and overinvestment concerns to be assessed and analyzed by the entrepreneur's abilities of appraisal and economic calculation.

The passive investor-hired manager relationship is much less complex in trying to understand the actual roles each participant play. It is however, obscure with respect to the adjustments likely to take place in the event of a business cycle. This relationship is best understood in the context of publically (and privately) traded companies where there are thousands of stock owners who by definition, own part of the company. Stock holders are never thought of as having any real role in the production process or firm structure. Instead, a board of directors is elected, or appointed, that is made of up specialists in various industries, and not necessarily the one the company is involved in. These individuals offer business expertise to make the operating decisions in oversight of the company. The board of directors decides what hired managers there should be, and what their salaries should be. These managers are not

granted quasi-property rights as our previous description of the active capitalist-hired manager relationship, but there is an incentive structure set up to reward good entrepreneurship. The problems of malinvestment and overinvestment are still prevalent and require the hired manager to be investing capital wisely while under the oversight of the board of directors. Though he is not granted property ownership from the passive investors as is the case with active capitalists, the hired managers in this relationship look to reap the full benefits from the incentive structure that promotes good entrepreneurship. To this end, the hired manager is looking to economize resources and invest in lines of production that will prove to be profitable after the adjustment process takes place. The relationship between the passive investor and the hired managers is not synonymous with that of the active capitalist due to the lack of interaction that exists.

We identify a clear autonomous nature for these two individuals and their incentives for being involved in the firm. While the hired manager is trying to accurately appraise capital goods and appropriately coordinate means to their most profitable ends using economic calculation, the passive investor is merely looking to make the greatest return on his investment at any given point. The passive investor does not have any commitment to the company he is invested in beyond capitalizing on the investment when he so chooses. A signature feature of business cycles is the overvaluation of capital goods, reflected in the price of the good as compared to the amount of revenue it actually brings. This overvaluation leads to increase speculation of the company's stock, thus driving the price up. A wise entrepreneur, even if he is a passive investor, recognizing the boom taking place and the overvaluation of capital goods, will look to capitalize on the speculation and pull his investment out to gain from the boom. Salerno makes the point that as inflation progresses it becomes clear to those possessing the greatest degree of entrepreneurial foresight [superior entrepreneurial quality] that there are pecuniary gains to be

reaped from such occurrences (2010, p. 321). Likewise, the opportunity cost is very high to “sit on the sidelines” during the boom. Wise entrepreneurs will not withdraw from production entirely, but take maximum advantage of excessive profits generated in the boom and liquidate just before it turns to the bust. He should and will invest in lines of production that appear especially profitable during the boom and not pull his investment out until he really must, ideally just at the peak of the cycle. Just because we cannot scientifically say when this point will come as a matter of economic theory, does not mean that “wise” entrepreneurs cannot exercise judgment to do so correctly. When the bust does ensue, these same entrepreneurs are likely to be the ones to buy up cheap assets in the adjustment period, allowing them to facilitate production decisions in the rebuilding economy.

Economic theory attributes very much of economic growth to successful entrepreneurship (as well as the social division of labor and capital accumulation). In order for a firm to be successful, it does not simply need a “manager” of resources; growth will not occur (Holcombe 2003). What is required is an entrepreneur active in organizing resources in an ever changing environment to maximize profit. Hired managers are entrepreneurs only to the extent that they are able to organize company resources to generate the greatest profit. In a publically traded company, there is typically one prevailing shareholder or group of shareholders who commands influence to make productive decisions within a company, and is responsible for the selection of hired managers.⁹ In this case, the overwhelming control of the company is exercising the entrepreneurial decision to hire consultants, forecasters, and technical experts (Klein, Klein, et al. 2007). These hired agents assume the role of making production decisions in the firm.

⁹ Henry Manne makes the important note regarding the hired manager and their ability to capitalize in the same manner by trading on insider information. He suggests as a preventative measure, publically traded companies “must provide a good enough compensation package to ensure productive entrepreneurs *instead* of trading on information” (Manne 2011). This is simply a measure taken to ensure good entrepreneurship on the part of hired managers, rather than shoddy work that allows him to gain a greater return than what a proper incentive structure allows him to.

Concluding Remarks

We have looked to discuss here the problem that exists between hired managers of firms and the capitalists providing finance during business cycles. While the manager is given entrepreneurial duties to organize resources and the production structure to earn a return on the capitalist's investment, he must possess certain qualities that allow him to adapt to market phenomena. Ludwig von Mises has long discussed the social consequences of credit expansion; he writes (2009 [1912], p. 204-5):

If the value of money falls, ordinary book-keeping, which does not take account of monetary depreciation, shows apparent profits, because it balances against the sums of money received for sales a cost of production calculated in money of a higher value, and because it writes off from book values originally estimated in money of a higher value items of money of a smaller value. What is thus improperly regarded as profit, instead of as part of capital, is consumed by the entrepreneur or passed on either to the consumer in the form of price-reductions that would not otherwise have been made or to the labourer in the form of higher wages, and the government proceeds to tax it as income or profits. In any case, consumption of capital results from the fact that monetary depreciation falsifies capital accounting.

This idea Mises lays out explains the difficulty entrepreneurs face in regards to business cycles fueled by government credit expansion. It becomes ever challenging to economize resources and make efficient production decisions.

We look to the “wise” entrepreneurs to exemplify their superior quality to not be enticed by easy money that leads to poor investment decisions. There is no correct method of how to adjust the production structure to maintain efficiency and avoid malinvestment and overinvestment during a business cycle. We note that if we are to hold to claims of heterogeneous capital and heterogeneous entrepreneurial quality, then we must necessarily have heterogeneous firm structures even within the same industry. Though firms of the same industry may adjust production processes similarly, there is no particular method that can be deemed correct for all cases. We place emphasis on entrepreneur abilities to be able to anticipate market

conditions of the future and be able to apply his specific understanding of how to react to those circumstances based on his thymological experiences. To further this idea, the entrepreneur must be able to accurately appraise real capital values in order to organize the production process in the most efficient manner, while making correct investment decisions that will not result in error. Additional research into the adjustment process would be a valuable contribution to business cycle theory. Specifically, harmonizing the differences between capital-based macroeconomics and labor-based macroeconomics to formulate a theory that integrates the liquidation and reallocation of capital goods with the reallocation of labor would provide a more sound explanation for why there is no one particular adjustment process suitable for all industries.

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