Business risk and black owned businesses – implications for capital access & costs

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ABSTRACT: Why are there not more scalable business firms and employment opportunities located within black communities? If development opportunities exist in the black community, in their states and regions and in the nation as a whole, why are there not more African American-owned firms which are community stabilizers, and reliable employment growth engines? The finance literature has developed no conceptual platform for addressing a range of these continuously perplexing questions. For example, if there is to be public policy in this area, what are the areas that might be appropriate? What might be the policy recommendations and with what expected effects? The purpose of this paper is to begin to conceptualize a model wherein a financial approach might contribute to a sustained policy set to address these issues. We develop a model wherein matched pairs of identical firms experience two sets of circumstances. Initially two identical firms in any matched pair face the same operating conditions and their risk and reward structures are not differentiated. Operating outcomes are identically rewarded in financial markets. In a later period, we introduce a costly and recurrent risk event that may befall one or more matched pairs of firms. When that risk is realized, its costs fall only on one firm in each matched pair. Now insurance and finance costs become prohibitively high or dry up. Some firms become higher cost, and are thereafter unable to be competitive. With persistence distinctly different outcomes feed heuristic behaviors. From this we attempt to extract policy implications.

JEL Codes: Market structure and pricing (D47); financial institutions and services (G21, G22); government policy and regulation (G38)

INTRODUCTION: Why are there not more scalable business firms and employment opportunities located within black communities? If development opportunities exist in the black community – whether in their states and regions or in the nation as a whole, why are there not more African American-owned firms which are community stabilizers, and reliable employment growth engines? Given an especially unique and difficult history among African Americans, it is especially important that their business prospects should be well-understood and be properly positioned for current policy prescriptions as may be necessary as well as for future refinements.[[1]](#footnote-1) In this paper, as a means of understanding the financial markets and capital access concerns faced by entrepreneurs in African American communities, we propose a model to explore whether these firms face idiosyncratic risk factors that are so unique that in financial markets they have viability and valuation implications in black communities.[[2]](#footnote-2)

In the area of business formation and competitiveness, some economic approaches have been used to address this issue. That approach has largely been data driven within a context and focus of labor markets. Fairlie (1999) has provided an excellent review of this string of research.[[3]](#footnote-3) For example, consideration has been given to factor endowments that might explain individual choices in labor markets wherein the alternatives have been defined as the choice of either self-employment or wage/salary labor force participation. Another approach in the literature has more narrowly focused on the relative performance and future prospects of black banks. A relevant overview of that genre is in Lash (2005).[[4]](#footnote-4) A third approach has highlighted the continuing presence of profitable business development opportunities in the African American community and their businesses. For example, consider Bates & Bradford (2005)[[5]](#footnote-5). Finally, there have been repeated comparisons of the business profiles of black non-financial small businesses in comparison with non-black firms. For example, consider Cavalluzzo et.al.[[6]](#footnote-6) Such approaches seem to run into the dead-end of capital access barriers and what are appropriate ways to address these barriers.

Consider a summary description of the complex state of African American entrepreneurship and the related paradox reflected in the recent literature. This summary includes the need for a finance theory regarding African Americans’ participation in capital markets. Let’s start with Fairlie[[7]](#footnote-7):

“... 11.6% of white workers are self-employed, whereas only 3.8% of black workers are self-employed.”

With their questions and observations, Lofstrom and Bates (L-B)[[8]](#footnote-8) express puzzlement in differentiating business start-up activities contrasted with actual self-employment:

“How then does one reconcile the higher incidence of firm start-up activities among blacks, relative to whites in the U.S. with their much lower rates of actual self-employment entry? … Restricted access to capital, of course, shapes the scale and industry distribution of planned businesses, thus reducing financial capital demand among black-owned firms… Black business owners – more so than whites – indicate that expectation of loan denial often causes firms in need of credit not to seek bank loans… Why are black men and women with graduate training two to three times more likely to be involved in a firm startup if indeed members of this highly educated group are in fact no more likely actually to enter into self-employment than those never attending college? Traditional resource-constraint explanations for the low self-employment entry rates describing black Americans simply lack credibility when applied to highly educated elite subgroups. A better understanding of the causes of racial differences … is needed to design or modify existing policies that promote minority business ownership.”

In this paper then, it is the issue of causality regarding racial differences that is central. In the finance literature there is no conceptual construct around which to explore the continuing concerns expressed most recently in Fairlie and L-B – regardless of related issues and personal or other attributes examined empirically, there is broad consensus that the deficient pool of African American entrepreneurs or self-employed individuals continues to revolve around capital and credit barriers. A conceptual financial basis might address self-employment deficits and provide a platform for other matters. A financial construct may also include some guidance related to appropriate policy prescriptions for some correction.

The purpose of this paper is to develop and present a conceptual model that starts with the finance sector. The model assumes that financial firms are best understood through their profitability aspirations. (In this paper, in addition to conventional banks and other institutions that supply financing to non-financial firms, the financial sector prominently also includes insurance firms that also serve non-financial firms.) The model relies on matched pairs of identical firms in an economy that is at a desired equilibrium state that is sustainable into the foreseeable future.

The model allows us to explore the following issue. If the financial sector entities pursue an established profit strategy (i.e. if they hold constant their expected periodic profits per non-financial firm) at the same time as relative conditions are changing among the non-financial firms, would there be severe consequences for any of the non-financial firms? If so, would there be implications for the capital access issues affecting African American and other minority businesses? We start the identical matched pairs in a desired equilibrium with matching expected outcomes. Then as relative conditions change for the individual non-financial firms in the matched pairs, we track their individual prospects as the financial firms hold constant their established profit plans.

The paper makes a contribution in several new ways. It attempts to address causality through financial markets’ operations regarding the barriers to African American businesses. Secondly, we attempt to consider whether there might be an investment incentive in these barriers. For example, a free rider issue comes to the fore. We also use the conceptual framework to introduce behavioral dimensions through heuristics that may be of consequence among non-financial firms arising from events initiated in the financial sector.[[9]](#footnote-9)

**The model:** The model we construct starts with a separation of firms in the financial sector from those in the non-financial sector. The model reflects and builds around financial firms whose planned profits per non-financial firm are constant. The non-financial firms’ relative circumstances do change, however. Then the question is how the non-financial firms fare in the long-term regarding provisions of credit and capital access. In this model, we start in an economy that is initially at a desired equilibrium.[[10]](#footnote-10) The non-financial firms’ optimally use their productive capacity, and with respect to markets, product, labor, management and capital markets are all in equilibrium. At this departure point, non-financial firms are undifferentiated in their operating characteristics, and their securities are widely held in the public within diversified portfolios. In this desired equilibrium, existing conditions establish currently normal operating risks.

For purposes of our model, non-financial firms are those engaged in production of goods and service packages both contractually and non-contractually. They have their largest investments in plant and equipment, including inventories etc. They are continuously seeking capital and credit for such things as optimal expansion and growth. As such, a financial sector is in operations to secure and maintain a profit potential compatible with the equilibrium conditions in the non-financial sector.

The structure of the non-financial sector is such that in equilibrium, if one firm disappears for whatever reason, an identical firm must arise as a replacement in order to restore and preserve the equilibrium. At this equilibrium state we assume that each firm is finely calibrated and, without loss in generality or operating efficiency, each is split into two such that each of the original firms yields two smaller independent firms that are the exact and equivalent replica of each other – undifferentiated with respect to management and financing, operating efficiency, labor, management and products. The split implies that initially (before the original firms were split) there were N firms in a desired equilibrium state. After the individual firms were split, there were N identically matched-pairs of firms for a total of 2N individual firms. The unit of examination is one of these N matched pairs and the examined unit facilitates an extrapolation such that we effectively address our concern as to how a constant planned profit regime among financial firms might affect relative outcomes among the economy’s non-financial firms. In other words, the expected profits of the financial firms are no different with the 2N firms after the split as with the N firms before the firms split into exact replicas of each other. After the split, a matched pair preserved the profits which a single firm initially yielded to the financial firms.

For example, initially each of the N matched-pairs would yield two undifferentiated firms. For ease of exposition, we might assume that at the desired equilibrium after the firms split in two, all 2N firms in the N matched pairs were colored green. Subsequently, in order to do the experiment, one of each of these exact replica firms is colored red. Thus in our experiment, we have matched pairs of firms, and within each matched pair, one is the original green and the other is red. Initially there are no other distinctions in the firms in each matched pair and the color distinction is purely superficial and of no consequence.

***Initial financial firms’ conditions:*** For purposes of this paper we consider simple financial firms as constituting the financial sectors. Insurance firms are in business to replace or repair the plant and equipment etc. at non-financial firms. They charge appropriate premiums to make their planned profit targets. Other financial institutions are stereotypically like banks. They supply capital and credit that facilitate current operations as well as the expansion and growth of not for profit firms. They use such things as collateral and other characteristics of the firm and its management to secure their financing.

Our approach in the model, holding constant the expected profits at financial firms, is to observe operating and risk conditions around one matched pair of firms in a single period. We assume that financial firms establish and hold constant expected profits for each firm in a matched pair in each period. The insurance firm’s normal periodic profits = π. The financial firm’s normal financing periodic profits = µ. In our design, any observation in one matched pair would also hold over the set of matched pairs. Also, to consider cumulative results affecting each firm as the number of periods increases, we assume starting with the first period, the cumulative result from added single periods would be exponentially greater over an infinitely longer time horizon.

Financial markets’ responses to the operating results at the non-financial firms also deserve scrutiny. Under our initial conditions, there are no differences when matched pairs are compared with respect to periodic operating results and future earnings potential. As identical twins, their financing mix and capital structures are exactly matched. Therefore, market valuations should reflect exactly the same cost of capital for each firm in a matched pair, each firm in a matched pair will enjoy the same market value, and investors will be indifferent between the firms’ securities. That is one element of the desired departure equilibrium point.

Consider for example the following table regarding profitability of insurance and finance firms for a matched-pair of firms:

|  |  |  |  |
| --- | --- | --- | --- |
| Table – Insurance & Financial Profits Summary for Matched Pair of Firms | | | |
|  | Green Firm | Red Firm | Profit per matched-pair |
| Insurance firm profit | π | π | 2 π |
| Financial institution profit | µ | µ | 2 µ |
| Total Financial Firms’ Profits | π + µ | π + µ | 2(µ + π) |

As indicated in the table, under normal circumstances, the combined normal profit amount at the financial firms (insurance and banking & credit firms) per matched pair of non-financial firms is:

Pn = 2(µ + π). (1)

These financial sector profit levels in (1) were established and existed prior to the finely calibrated split in the non-financial firms and were maintained thereafter. In fact these are the profits at financial firms that our model assumes have become the benchmark targets that they seek to preserve regardless of changes that might be occurring at non-financial firms.

***An idiosyncratic risk and firm’s distinction***: To move toward a theory regarding causality in shortages of credit and capital to the African American business experience, we move from the idealized initial conditions. We assume here that for unspecified reasons, a set of firms might emerge and be viewed as vulnerable enough to be exposed to a wider than normal range of business operating conditions, including costly idiosyncratic risk factors. [[11]](#footnote-11) In this paper, idiosyncratic risk factors (e.g. an excessive number of destructive fires) are geared to be disruptive of operating capacity. This assumption implies that for one class of firms in our model management must now contend with at least one risk factor beyond market risks. In accommodating the injection of idiosyncratic risk among the set of matched pairs of non-financial firms in this paper, the operating conditions for matched pairs of non-financial firms can be summarized as follows:

1. Originally, (at the time firms are calibrated and split into mirror images of each other) normal business and operating risks would include such things as random and occasional fires. These normal risks were incorporated in insurance and financing firms established normal profit expectations as in (1) for any matched-pair of firms.
2. Regarding insurance coverage, the individual firms in any matched-pair could obtain competitive private insurance at existing market rates or they could self insure. For other credit & financing firms, red and green firms had the same cost of capital and credit.
3. As it developed, the idiosyncratic risk is that in all future periods, the non-financial firms will experience an excessive number of highly destructive fires. The characteristics of the idiosyncratic fires reflected the following things:
   1. The probability is ĝ > 0 that compared with the prior normal number of fires (our example of idiosyncratic risk is fires) a positive number of excess fire events will likely occur. If realized in any period, the excess fires will certainly be very costly and destructive at non-financial firms.
   2. The idiosyncratic risk manifested such that the fires affected only red firms. Green firms were entirely unaffected.
   3. The periodic idiosyncratic risk structure described is permanent into the foreseeable future.

The question now arises regarding how the costs associated with the idiosyncratic risk factor gets transmitted into the operations of non-financial and financial institutions and markets. If the incremental idiosyncratic risk costs occasioned no market distortions compared with earlier conditions, then the development would be of no consequence and both financial and operating performance expectations would be unaffected.

We assume that under any circumstances, financial firms will continue to expect their normal profit targets. That implies no changes at the green firm in any matched pair. However, in any matched pair, the case of a fire risk at the red firm has profit implications for the financial firms in each period. Therefore regarding the red non-financial firm in any matched pair, if there is a fire in the period, then relative to its normal profits the insurance firm’s loss expectation in the period is:

LI = (α π); where (1a)

Similarly, the credit & financing firm’s experience at the red firm will be a loss in that period of

LC = (∞µ), where (1b)

Recall that by assumption, the probability of the idiosyncratic fire in any period is ĝ > 0. A tabular description shows the composition of conditional periodic profitability for financial firms in a given period for a matched pair of non-financial firms.

**Table of Expected Insurance & Financing Profit Payoffs with Idiosyncratic fire risk**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Probability of added idiosyncratic fire = ĝ > 0 | | |
| EVENTS: (*Risky periodic outcomes & affected financial firm*) | *Green Firm Profits* | *Red Firm Profits* | *Total for Matched Pair of Firms* |
| Insurance Firm – No Fire | π | (1- ĝ)π | π + (1- ĝ)π |
| Insurance Firm – *Fire* | π | - ĝ απ | π - ĝ απ |
| *Insurance Summary* |  |  | *π [2 - ĝ (1+ α)]* |
| Financing Firm – No Fire | µ | (1- ĝ)µ | µ + (1-ĝ)µ |
| Financing Firm *– Fire* | µ | - ĝ ∞µ | µ - ĝ ∞µ |
| *Financial Summary* |  |  | *µ [2 - ĝ (1+ ∞)]* |

\*For each firm in a matched pair, the normal profits for the insurance firm = π and normal profits per firm = µ for financial firms. For the exogenous risk (fire) the probability of occurrence = ĝ > 0

As indicated in the table, with the idiosyncratic fire risk, the combined profits (and the related composition) for the insurance and credit & financing firms per matched pair of non-financial firms are:

PnR = 2(µ+ π) - ĝ [µ (1+ ∞) π (1+ α)] (2)

If we compare (2) with (1) there is in the financial sector a decrease in planned profits per matched pair of non-financial firms. The amount of the profit shortfall is:

Pn – PnR ≡ TL= - ĝ [µ + π + LI + LC] (3)

In (3) the total profit shortfall in the financial sector arises on account of the red firms’ predicament from the idiosyncratic risk incidence. It consists of added insurance premiums, and also added costs of credit and capital from the banks and other financial institutions. The distribution of these increased costs notwithstanding, TL in (3) represents the incremental operating costs that red firms would have to incur in order to meet the profit expectations financial firms demand for the risk experienced at the red firms. Note that the drivers affecting these adverse operating results are (i) the non-random idiosyncratic risk and the non-zero probability of its periodic occurrence; (ii) the rigidity and levels in the profit plans in the financial sector firms; and (iii) the relative losses expected when incidences of the idiosyncratic risk are realized.

There is one additional and important factor that has not been considered in matters of capital access and the cost of credit affecting businesses. That is the matter of a reliance on heuristics – a construct that we introduce in this paper as a means of expanding our understanding of factors that may be explanatory of observed varying financial costs. [[12]](#footnote-12) In the context of our model, with businesses differentiated along color lines, observed outcomes being different, and the complexity of idiosyncratic risk factors beyond a simple exposition, this might be a climate that encourages heuristic thinking regarding firms and their success prospects. In this climate, heuristics may be appealing and reflect less the complex nature of the underlying risk processes, and more the outcomes observed as they are associated over a sufficient time period with the color differentiated firms.

Recall that insurance firms in this paper are in the business of repairing and replacing existing production capacity. Further, in the credit and capital supply process, the banks and other credit supply financial firms use as collateral the structures and equipment that are insured. In the absence of ready insurance, an added difficulty that can be expected is that credit supply will be disrupted. Here is one unique result of our model linked directly to causality in the supply of loans and credit. We identify that insurance decisions are value signals that might affect loan terms at lending institutions. In fact, other things constant, we would expect that the higher the insured value the greater the loan request that may be reasonably made for a given asset. Thus if there is a difference in the insurability of two otherwise identical firms, given their fixed asset bases, the firm with higher insurance will receive greater loan volumes at lower credit costs. The better the collateral funding, the easier it will be to finance growth opportunities starting from a known asset base. This interaction between insurance firms' decisions and the loan terms in decisions at lending institutions has not often been noted or recognized in the literature on funding entrepreneurs. However, we expect that it plays an important role in the presence of non-random non-diversifiable risk factors. It is a significant area for an examination of causality that has not been widely explored in empirical work.

The remaining issue is to consider the survival prospects for the firms experiencing idiosyncratic risks if such risk factors persisted over the long-term. Were the non-random risks incremental costs as assessed by the financial firms to be permanent, and if rationally they are passed systematically onto a defined set of (red) non-financial firms, then over the long-term, qualified red firms would have a choice with little difference in long-term outcomes. They must either absorb these permanent incremental costs arising with the idiosyncratic risk factors, or attempt to pass them through in the product market. In either case, over the long-term they would be unable to be competitive on account of the non-random idiosyncratic risk factors. We would expect, therefore, the demise of one set of potentially qualified red institutions in favor of another equally qualified set of green similar firms. We explore next how these developments course through several markets.

**Markets**

Product markets: Consider the product markets. As constructed, the product markets would not be affected in the long-term if the idiosyncratic risk persisted. This is because we can expect the desired equilibrium will be preserved. For example, in the short term red firms might continue to produce even at reduced productivity. However, the non-random costs of the idiosyncratic risk may start a process at the red firms that is difficult to reverse, and may lead to capacity shifting to green firms.

Firstly, a process of revenue shifting might occur such that a failing red firm may fail and a green firm arises as a replacement. For example, consider a case where firms make products under binding contracts. The contracting officials would be unwilling to undertake and elevated risk that their contracting firm could not deliver the contract on time and within budget. Therefore, in the presence of the idiosyncratic non-random risk, contracting officials might be inclined to shift contracts from red firms to green firms – shifting revenues from red firms, and increasing demand for capacity at green firms. Of course, what this kind of development implies is that there might be certain types of business that become increasingly difficult for red firms to hold where it once existed, or to secure if new opportunities arise. Thus the numbers of red firms and green firms might be seen to move onto different growth tracks.

Additionally, however, strong incentives may be imbedded in the non-random idiosyncratic risk occurrences for investors. For example, in well-functioning capital markets, good forecasting that would be routine would also become incrementally valuable in light of the non-random idiosyncratic risk occurrence at red firms. Forecasts about the viability of red firms in light of the non-random costs may have real consequences, and the quest for greater numbers of green firms and stable production capacity might reinforce perceptions of investment opportunities tied to the idiosyncratic risk factors. Among other things, therefore, an ability to arbitrage across the firms might arise where it is possible to buy capacity at existing red firms (at lowered values), convert them to green firms, and then hold capacity with arbitraged returns. Thus we expect that there will be no permanent impact or disruption within the product markets on account of the idiosyncratic risk factor.

Labor markets: In this area, we consider the implications for employees at firms affected by non-random costs of idiosyncratic risk factors. Employees at red firms face a heightened risk of unemployment on account of the idiosyncratic risk. For example, the competitive product market is unaffected by the incidence of the idiosyncratic risk. That implies that any increased costs cannot be passed on through increased prices and revenues. Thus as a first response, the red firms’ managements will seek to reduce costs – and this increases the risk to employees regarding their employment. Of course as that risk is realized we would expect that the best employees will be the first to leave the red firms and seek alternative employment. Thus even as the need for employment costs at red firms elevates the unemployment risk for their workers, simultaneously they have an elevated risk of reduced quality of workers going forward when compared with green firms.

Management markets: In this area, we consider the implications for managers at firms affected by non-random costs of idiosyncratic risk factors. Managers at red firms will be expected to have heightened challenges as the idiosyncratic risk affects their firms. In other words, they would be expected to address all of the normal challenges that affect the green firms, and additionally to manage in the face of the non-random idiosyncratic risk. This added responsibility and challenge would arise at the same time that their firms are expected to curtail costs if they are to be competitively profitable with the green firms. In other words, the management at red firms will be expected to undertake greater responsibilities for which they cannot expect any added compensation. This compensation structure would of course be untenable in the long-term. In the market for management, those at red firms would likely be evaluated as relatively inefficient (in comparison with management at green firms), their firms are comparatively less profitable, and other things constant, the value of management at those firms would likely decrease. Under those conditions, management at red firms would likely seek alternatives – again with better managers leaving the red firms first, and accelerating a process of deterioration at the red firms, and loss of shareholder value.

Financial markets: In this area, we consider the implications for investment opportunities related to firms affected by non-random costs of idiosyncratic risk factors. In financial markets, we expect that there will be two levels of response. The cost of capital at red firms will increase with the increased non-random idiosyncratic risk. As the insurance risk has increased, the collateral value of red firms’ assets will decline. As collateral, the assets at red firms will support less loan volume. Thus prospects for business growth will diminish or likely disappear. For such reasons, we will expect that the net result of the idiosyncratic risk will reduce the market value of red firms. Investor losses at these firms will likely accelerate the decrease in available financing – and when compounded by an available dearth of capable managers for red firms, it is in financial markets that the ultimate diminution and demise of red firms as a group might be determined.

**Community level implications**

Given the current consensus in the economics literature that African American entrepreneurs faced unique barriers in financial and capital markets, this paper’s intent was to address the issue of causality. The paper aims to begin a conceptual financial model that might illuminate how these extant conditions might arise and be sustained permanently. In the model, we relied on knowledge of financial institutions’ expected profits from non-financial firms. We then considered the profit impact of costly changes in idiosyncratic risk factors among a defined subset of the non-financial firms. As these factors adversely affected the profit plans at financial institutions and markets, they changed their pricing and premiums at the non-financial firms experiencing the idiosyncratic risk. As a result, capital market access decreased and the cost of capital at the subset experiencing idiosyncratic risks increased. Thus the subset experiencing the idiosyncratic risk could be expected to become non-competitive with otherwise similar firms not experiencing the idiosyncratic risk factors. Being non-competitive, the subset of non-financial firms experiencing the idiosyncratic risk factors would have higher failure rates – a development that would carry a wide array of consequences in markets for management, labor and capital.

If the subset of firms experiencing the idiosyncratic risk factors were expected to be the economic backbone of a defined community, then the economic prospects of that community would be curtailed, and any potential competitive advantage it had would be diminished or disappear. Such a community would likely become economically unattractive in the absence of contravening policy prescriptions. Relying on historical experiences in the African American community, this section of the paper relates the model’s predictions to persistent economic conditions in the African American community and might then be a basis for policy prescriptions.

*An example of idiosyncratic risk in the African American experience:* To transition the model and direct its discussion and focus directly on the business development prospects in the African American community, we consider selected developments historically within the African American community, how they might be characterized as economic phenomena, and market consequences of these economic phenomena for African American business formation, growth and development. Consider for example, characterizing the history of lynching African Americans as an example of persistent costly idiosyncratic risk.[[13]](#footnote-13) Recall what financial theory indicates about idiosyncratic risk and how savings and investment are affected:

“While he can hedge the systematic component of his business risks … he cannot diversify the idiosyncratic risk. Therefore…the idiosyncratic risk exposure will affect his interdependent consumption, investment, financing, and business exit decisions. Such non-diversifiable idiosyncratic risk … can sometimes overturn the predictions of standard finance theory on firm valuation, financing choices, and agency problems.”[[14]](#footnote-14)

A substantial literature exists on the importance of idiosyncratic risk in asset values and entrepreneurial finance. The relevance of idiosyncratic risk arises because (under normal entrepreneurial conditions) returns to equity are expected to be higher if owners have a higher exposure to idiosyncratic risk.[[15]](#footnote-15) If overtime African Americans have had added idiosyncratic experiences, then this would be an even more relevant element in the context of a model of market developments affecting these firms. There is also increasing recognition that in financial and economic markets, heuristic thinking might also play an important role.[[16]](#footnote-16)

*African Americans’ insurance experience – a reflection:* Consider the area of African Americans and their participation at emancipation in the insurance business. Woodson (1929) has discussed their participation in that business during the period of their embryonic status as freedmen. While Woodson identified both the opportunities, but great institutional barriers (including capital and management) that befell efforts by African Americans to secure insurance for their development needs, narrow idiosyncratic risk factors were noted.[[17]](#footnote-17) In the recent past, however, the example of Nationwide insurance having to settle redlining complaints served as a reminder of the persistence of insurance denial as an idiosyncratic risk factor regarding property insurance for African Americans and the implications for being economically competitive.[[18]](#footnote-18) One question that we ask in this context is whether insurance market heuristics might have arisen in the period between Woodson’s work in 1929 and Attrino’s report in 1998 – heuristics that undervalued participation of African Americans may have developed.

*African Americans’ and banking – a relevant reflection:* Now consider the area of banking and its related implications for credit access. By 1909, Booker T. Washington was highlighting not just that black banks’ faced impediments and lack of access to the clearinghouse, but also risk and cost implications that arose and penalized black banks and their communities.[[19]](#footnote-19) Yet even after introducing the Federal Reserve System (1913) and the Farm Credit System (1917), Work (1928) was still citing black banks’ “exclusion from clearing house participation,” as he noted that the “chief problems of Negro businesses of every sort are efficient management and sufficient capital, including credit in its various forms to successfully carry on the enterprises.”[[20]](#footnote-20)

As in the case of the insurance industry, a number of constraint issues identified long ago have persisted. For example, Hylton (2000) considered asymmetric information problems, identifying what amounts to a breakdown in credit supply by standard formal sector lenders when functioning in the inner city. The limitations and very high costs he delineated amounted to a rejection of any notion that formal sector lenders are suited for inner city lending[[21]](#footnote-21):

“In sum, the asymmetric information model applied to small business lending implies that a formal sector lender that services a hypersegregated community will: (1) ration credit in order to screen out risky applicants, generating relatively high rejection probabilities; and (2) make relatively steep collateral demands. Put another way, loan applicants from hypersegregated communities will be discriminated against in the sense that they will face higher rejection probabilities and steeper collateral demands.”

Again, the question we pose relates to the opportunity that arises in periods like that between Washington (1909) and Hylton (2000) to develop and advance heuristics about African Americans and access to capital and credit markets. For example, segregation notwithstanding, might there arise greater adverse outcomes related to asymmetric information if entrenched heuristics understated African Americans’ value in capital and credit markets? Were such heuristics to develop, then there might be an expectation that African Americans would be denied credit and have business outcomes that are less than desired. For example, consider the following:

“Our analysis finds significant evidence that black-owned businesses face impediments to obtaining credit that go beyond observable differences in their credit-worthiness. … In fact these concerns prevent more black-owned firms from applying for loans because they feared being turned down ...”[[22]](#footnote-22)

Cavalluzzo et. al. have reported similarly.[[23]](#footnote-23)

“Small businesses that were owned by African Americans were more likely to be denied credit and have unmet credit needs as the level of lender market concentration increased. In addition, African American owners were less likely to apply for credit with increases in lender market concentration. The latter ﬁnding suggests that a feedback effect may be exacerbating the detrimental effects of market concentration by limiting applications for credit from African American owners.”

In this background, African Americans are one group which has met the elements of our model. Their experiences included lynchings as an example of persistent idiosyncratic risk, and insurance and capital access have been persistently recognized. where our model predicts that idiosyncratic risks would lead to disastrous consequences for red firms, we We let the red firms be the ones which initially supported purely African Americans. Thus in our model the African American community starts with the same endowment of businesses and as strong and viable a business sector as the non-African American community that sprang up around green firms. And then idiosyncratic risk factors arose with non-random costs to the red firms in the African American community while sparing such costs to green firms everywhere else. For example, in addition to such things as fires, in African American communities random or occasional human lynchings occurred and these could be interpreted as another idiosyncratic risk factor. Again, that development could have had a long lasting and very direct chilling effect in such areas as the management and labor markets – thereby making other labor locations more desired especially for the most talented and entrepreneurial since managers and workers elsewhere (at green firms) would be relatively safer. In this context, our model would indicate that insurance and financing charges would be higher where lynchings occurred - less because of characteristics inherent in the residents, and more because those distinct residential and community characteristics allowed a strict imposition of non-random costs onto the otherwise normal expense structure of red firms in the African American community. With the design of communities as described around firms in this paper, the “red” color marker in the model that once signaled generically which firms should experience non-random costs of idiosyncratic risks could be replaced with the marker characteristics of the community residents. However, whether by firm color in the model, or residents’ characteristics in communities, the economic issues are the same – what is originated initially as an ability to impose non-random costs among non-financial businesses then translates into the financial sector firms having to adjust their revenue streams such that the adjustment process facilitates the demise of one set of potentially qualified institutions in favor of another equally qualified set of similar firms which avoids the idiosyncratic risk factors and their economic costs.

We have already noted that on account of the idiosyncratic risk factors and their non-random cost impositions that an opportunity exists to shutter red firms and open green replacement firms. When there are communities built around these firms, further incentives arise if there is community competition regarding the quality of local living conditions. There is at least the investment opportunity to arbitrage across locations and communities as long as the idiosyncratic risks and the related costs last. This opportunity is an incentive arbitrageurs to encourage the shuttering of red firms in one community (the African American community) and the establishment of equivalent firms in the other (non-African American community) thereby avoiding the non-random costs associated with such idiosyncratic risk factors as fires and lynching. We refer to this a free rider investment opportunity to make profits on account of the joint ability to impose non-random costs, and the existence of idiosyncratic risk factors.

In the long term, the process begun with the non-random costs of the idiosyncratic risk and then supported by this free rider incentive would have different results in the communities surrounding these firms. In (African American) communities surrounding red firms, institutions and activities that once might have prospered would likely tend to atrophy. At the same time, jointly on account of a free-rider arbitrage opportunity and the cost imposition process, the number of activities and institutions present in (non African American) communities around green firms would be expected to increase and to prosper. Given the expected results in labor and management markets cited earlier, the communities around green firms would benefit from more and better workers, and more and better managers. Shielded from costs associated with idiosyncratic risk factors in communities around green firms, financial institutions and markets would provide green firms relatively better terms and volumes of capital, those communities would reflect a range of better investment outcomes.

Note however, that it is the business model employed in the financial sector through its firms which is the avenue for actualizing the processes observed in the model. For example, we identified a free rider (or potential arbitrage) investment opportunity tangled into the idiosyncratic risk non-random cost shift. That incentive could be realized only through the financial firms. Additionally there might emerge a more uniform community support from residents in support of the non-random costs of the idiosyncratic risks on account of value imbedded in subsequent comparative community advantages and developments. Again, such value realization in the community could occur only in the context of the financial firms and the model they employ. For example, when compared with the (African American) community around red firms, the (non African American) one around green firms becomes increasingly more desirable both for its residents and future potential residents as it adds activities and institutions. We would expect that these are adequate reasons for the wider communities to potentially embrace a range of heuristics that are consistent with the values realized given these relative outcomes[[24]](#footnote-24).

In summary, a range of processes gets actualized on account of the existing structure of the financial sector and its profit model. The existing structure is compatible with sustaining non-random costs imposition when idiosyncratic risks arise. In addition, at some point within communities heuristics may come to play a major role in realizing comparative advantages across communities, and sustaining non-random cost imposition on vulnerable communities. The capacity in communities to ignore idiosyncratic risk factors if their costs are non-randomly assigned aligns well with Daniel Kahneman’s observations:[[25]](#footnote-25)

*“It’s very clear that it doesn’t take very much for people to think that there is a pattern, and it doesn’t take many successes for people to think they are very, very smart, and it doesn’t take many successes for others to think that a successful person has been very smart. People can be lucky, and that will feed into overconfidence. But even without luck, people are prone to overconfidence.”*

For example out of our model and subsequent analysis, an anchoring heuristic might append to firms in African American communities (red firms). Such firms may be characterized as having high risks, and incapable of long-run survival prospects. The labor force might experience high rates of unemployment, and the community might heuristically be unattractive for investment, investors and quality management personnel. In fact, given related heuristics, we would expect that financing opportunities to be of limited quantities and available at very high cost. The process that began with a capacity to impose non-random costs associated with idiosyncratic risk would have run its full course through providing arbitrage investment opportunities, extracting community support and being sustained by heuristics.

**Public Policy and Idiosyncratic Risks**

The intent has been to separate the non-random costs from the idiosyncratic risks which gave rise to these costs. Distortions in the economic realm arose on account of these costs. The most prominent of these costs arose with the financial firms whose profit expectations led to red firms bearing costs of idiosyncratic risks.

Public policy actions would logically be considered in the following areas:

1. Economic protection of vulnerable populations against costly non- random idiosyncratic risk factors.
2. The financial sector firms that serve the non-financial red firms. It is as important to include attention to insurance firms as to other financial institutions and credit supply firms.
3. Management of heuristics’ costs and their proliferation

*Economic protection:* There is need for one additional area of policing arising from our model’s results. That is in the area of economic defense for vulnerable communities. (Historically the African American community has been one such population and remnants may continue.) That policing would either stop non-random cost impositions on businesses in the vulnerable population, or dismantle existing structures supportive of such cost impositions.

* Recommendation: Institute a dedicated intelligence framework for discovery, examination and analysis of potential idiosyncratic risks whose costs can become non-random and target vulnerable communities.

*Financial sector firms*: Our model was constructed by maintaining target profits at financial firms even as non-financial firms experienced risk changes and costs. One implication has been that when firms experienced non-random costs imposed by idiosyncratic risks, their operating costs increased and their profits would be expected to fall in tandem. The reason for the cost increase was that financial firms passed along their own increased costs through charging the red firms higher insurance premiums. Additionally, red firms’ financing challenges were in two parts. On the one hand they faced a constricted supply of credit, and their costs of capital increased.

Given the model developments in this paper, one policy implication in this area is for a public indemnification for financial firms against losses arising from non-random idiosyncratic risk costs. Further, by way of addressing normal market conditions in insurance markets, there may be a public policy role to ensure that non-financial firms should be offered insurance premiums that reflect purely market conditions at any point in time. Another is that the supply of credit and capital should be increased to what would be expected in light of only generalized economic risks. Finally, in regards to the costs of capital, the policy implication is that the cost of capital should be available to vulnerable firms on terms reflective of market conditions only – stripped of idiosyncratic risk costs and any associated implications arising because those were viewed in a heuristic context.

* *Recommendation*: On account of the varied costs that may arise from idiosyncratic risks and imposed in non-random ways, there is need for a GSE regarding capital supply and costs to firms in African American and other vulnerable communities.

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1. As in the area of civil rights, the policy prescriptions first developed to address African American concerns arising from their unique financial prospects history are also later adapted to enhance the prospects of other minority groups. [↑](#footnote-ref-1)
2. In the finance literature, systematic and non-systematic or idiosyncratic risk factors are respectively rewarded or not rewarded in securities markets. The assumption in the literature is that portfolio opportunities are such that idiosyncratic risk might be diversified away. In this paper, we use the term idiosyncratic risk to describe situation specific risk factors that cannot be diversified away. [↑](#footnote-ref-2)
3. [↑](#footnote-ref-3)
4. [↑](#footnote-ref-4)
5. [↑](#footnote-ref-5)
6. [↑](#footnote-ref-6)
7. [↑](#footnote-ref-7)
8. [↑](#footnote-ref-8)
9. In this paper, the financial sector consists of firms that supply business insurance, and credit and capital. [↑](#footnote-ref-9)
10. For purposes of this paper’s analysis, the economy consists of financial and non-financial firms in capital, credit, product, management and labor markets. These are markets initially in equilibrium into the foreseeable future. [↑](#footnote-ref-10)
11. An idiosyncratic risk factor is represented in standard finance theory as a risk factor that cannot be diversified away in normal market operations and conditions. [↑](#footnote-ref-11)
12. “Economics is inherently difficult. If the public tries to make sense of it nonetheless, it must impose some simpler structure or rely on heuristics. We submit that naïve participants rely on a simple but powerful heuristic: the economic world functions in either a virtuous or a vicious circle. An increase in one good variable will increase the values of other good variables and decrease those of bad variables. This *good-begets-good* heuristic settles in most cases how to answer.” [↑](#footnote-ref-12)
13. ### “Lynching is the killing (by hanging, burning, or torturing) of an individual or individuals, by a group of three or more persons operating outside the legal system in the belief that they have the right to serve justice or to reinforce a tradition or social custom. Motivated by anger, hatred, or outrage, mob members act spontaneously on the basis of presumed guilt, without the due process of law. Lynching could exist because [law enforcement](http://digital.library.okstate.edu/encyclopedia/entries/L/LA028.html) officials tacitly approved or could not prevent it. Lynching or mob violence is usually, but not exclusively, associated with racism. However, much regional variation existed across the United States. In the South the system of [slavery](http://digital.library.okstate.edu/encyclopedia/entries/S/SL003.html) maintained a strong tradition of summary justice, with white owners exercising total control over black "property" and dispensing any kind of "justice" any time, for any "offense." After the [Civil War](http://digital.library.okstate.edu/encyclopedia/entries/C/CI011.html), when slaves became free men and women, whites perpetuated a caste system by creating an atmosphere of fear. In the South, the lynch mob institutionalized social control with enforcement by hanging and burning. In the same period, in the western states, where there was a shortage of courts and law enforcement officials, lynching was acceptable punishment for livestock rustlers, stagecoach robbers, gamblers, and other miscreants. Nationally, lynching grew each year from 1866 through the 1880s, peaked in 1892, and gradually declined, except for an upsurge during the Red Scare of 1919-20. By 1900 the punishment was reserved almost exclusively for blacks. From 1889 through 1918 mobs lynched 129 persons in the Midwest, 9 in New England, and 2,915 in the South and Border South. The nation reached a total of 3,587 by 1930.” (Oklahoma Historical Society n.d.)

    [↑](#footnote-ref-13)
14. See [↑](#footnote-ref-14)
15. See [↑](#footnote-ref-15)
16. [↑](#footnote-ref-16)
17. “This fraternal insurance developed more rapidly, too, after the publication of works presenting the Negroes as poor insurance risks. Chief among these treatises was Frederick L. Hoffman's *Race Traits and Tendencies of the American Negro*, published in 1896. **The author endeavored to show that because of social diseases, living conditions, and other undesirable circumstances, companies would be unwise to insure Negroes**. (Emphasis added). Denied, then, the protection which these companies had offered them, the Negroes had to fall back on fraternal insurance associations which, there-fore, flourished during these years whether they offered the same inducements or not.” (Woodson 1929) [↑](#footnote-ref-17)
18. “Nationwide Insurance has settled a 2-year-old redlining complaint filed against the corporation by members of the Lexington Fair Housing Council. In court papers filed in 1996, the council accused Nationwide of redlining, alleging agents discouraged African-Americans from seeking property insurance but offered whites insurance and gave them special discounts for homeowners policies if their homes were in predominantly white neighborhoods.” (Attrino 1998 (April 6)) [↑](#footnote-ref-18)
19. “In the early history of the coloured banks of Virginia it has been told me that considerable difficulty was experienced because these institutions were not connected directly with the Clearing House. The result was, it is said, that the “coloured” depositors were unwilling to open accounts in “coloured” banks, since no means existed by which an exchange of checks among “coloured” and “white” banks could take place, and the “white” banks refused to accept these checks because they could not “clear” them in the ordinary way. This policy was broken up, however, when the white merchants, who had accepted checks upon the Negro banks, threatened to withdraw their deposits unless the “white” banks made some arrangements by which checks on the “coloured” banks could be cashed.” [↑](#footnote-ref-19)
20. See [↑](#footnote-ref-20)
21. [↑](#footnote-ref-21)
22. [↑](#footnote-ref-22)
23. [↑](#footnote-ref-23)
24. “Heuristics are simple, efficient rules learned or hard-coded by evolutionary processes, that have been proposed to explain how people make decisions, come to judgments, and solve problems typically when facing complex problems or incomplete information.” *Wikipedia* [↑](#footnote-ref-24)
25. See (Investment Management Consultants Association 2012) [↑](#footnote-ref-25)