

A Theory of Minority Entrepreneurship

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Since different racial and ethnic groups experience different entrepreneurial outcomes, we need to develop an explanation for these differences as a foundation for overcoming them. Early analyses of entrepreneurship by Cantillon, Turgot, Smith, Say are applied to problems of minority entrepreneurship. Menger, Schumpeter, and Kirzner provided the most modern and complete treatments, but entrepreneurship's multifaceted nature makes it difficult to incorporate into formal models. Segmented markets and preferred habitat theories drawn from financial economics are applied to address special issues confronting minority entrepreneurs and suggest how they might inform public policy. Because policy implications are suggested, it is hoped that this paper may contribute to a constructive conversation on opportunities to encourage entrepreneurship and advance minority communities.

To analyze minority entrepreneurial planning first we will review entrepreneurship in the history of economic thought. These views from the economics literature will then be applied to problems addressing segregated societies, and those where discrimination is either legally formalized, such as under apartheid or Jim Crow, or prevails through established custom without legal sanction. Numerous discriminatory policies are explicitly designed to protect majority groups and established firms by shielding them from competition and creating barriers to entry that are expensive for new entrants to overcome (Kleiner & Kudrle, 2000). Though overtly colorblind, these regulations disproportionately burden minority communities, including minority entrepreneurs. Successful entrepreneurial innovation creates short-term monopoly profits. Monopoly firms can use these profits to lobby for protective regulations that preserve their monopoly power, though the most entrepreneurial firms move serially from one innovative experiment to the next (Mitchell, 2014; Tullock, 1967).

Segmented markets theory (Culbertson, 1957) and preferred habitat theory (Modigliani & Sutch, 1966) are theories of interest rate term structure that seek to explain why different interest rates are offered on debt of different maturities. Although applying these theories to discrimination against minorities is extraordinarily remote from the financial applications they were devised for, we will see they have high explanatory power. Segmented markets theory is based on the presumption that institutions and investors match maturities of assets with liabilities. It assumes little or no scope for substitution among debt instruments of different maturities, explaining why the yield curve can be inverted or u-shaped. Preferred habitat theory relaxes the assumption of no substitution among maturities. It assumes investors have strong preferences for particular maturities, normally matching the maturity of a loan to the expected time required for the investment to provide a return that will enable the loan to be repaid.

Preferred habitat theory recognizes that borrowers can sometimes be persuaded to stray from their preferred maturity or habitat by sufficiently attractive yields on loans with shorter or longer maturities. Arbitrage among instruments of different maturities lessens the extreme differences among interest rates.

Segmented markets where minority and majority communities are rigidly segregated still benefit from entrepreneurial innovation within each group, though both groups would benefit more if all innovations were equally available to both communities. Segmented markets would be characterized by no availability of entrepreneurial financing outside each community, and with entrepreneurs primarily catering to their own group, resulting in a lower availability of startup financing for minority entrepreneurs. Nevertheless, segregated majority and minority communities would still benefit each other and increase consumer welfare by engaging in trade, with total integration providing the maximum benefit to both groups.

The preferred habitat model recognizes that perceiving sufficient benefits from trade will persuade consumers and startup financiers to patronize entrepreneurs they would previously have discriminated against. Mutually beneficial exchanges habituate people to broaden their horizons and overcome established prejudice. The paper will also discuss the diffusion of innovation and entrepreneurial benefits from one group to the other.

The rest of the paper is organized as follows: the next section offers a brief sketch of how economic theorists have recognized the role of entrepreneurs in driving market process. This is followed by a discussion of ways entrepreneurs can contribute to removing discrimination and alleviating its impact, and how labor discrimination tends to shift minorities into more entrepreneurial activities where discrimination against them is less effective. The next section analyzes how entrepreneurial innovation spreads, and contrasts minority with majority experiences

in the face of discrimination. Then problems of government policy to address discrimination and encourage minority entrepreneurship are addressed. Finally concluding comments are presented.

Market Process and the Entrepreneur

Entrepreneurship is multifaceted and defies formalization. Historical views of entrepreneurial planning (Blaug, 1998, p. 227) include arbitrage (Cantillon, 1755), coordination (Kirzner, 1973; 1996; Say, 1803), innovation (Schumpeter, 1911), overcoming uncertainty (Cantillon, 1755; Knight, 1921; Turgot, 1766; 2011), and broadening judgments of the most effective ways to allocate resources (Casson, 1982, 1995). Entrepreneurial planning is an experimental process that generates market information through trial and error (Mulligan 2009). Market information only becomes objective historical data as buyers and sellers engage in mutually-beneficial exchanges (Buchanan, 1986). Cantillon (1755, pp. 73-77) relied on his own business experience to frame one of the earliest descriptions of entrepreneurial planning, his doctrine of the three rents for agriculture (1755, pp. 66, 124). In his formulation, agricultural revenue is divided in roughly equal thirds, among rent to the landowner, wages to the workers, and profits to the farmer-entrepreneur. Farmer-entrepreneurs assume the burden of uncertainty, since drought or pestilence may destroy their crop or reduce its yield, resulting in lower profits or even a loss.

Cantillon also sketched the contribution of entrepreneurs who occupy later stages in the production process, such as arbitrageurs who purchase harvested produce and assume some of the uncertainty of holding the output. The farmers benefit from this transfer of risk because they receive a definite price up front, since the arbitrageurs do not know with certainty how rapidly they will be able to dispose of the produce or at what profit, if any. Turgot (1766, 2011) emphasized that production depends on saving out of past output. Say (1803) was the first to recognize entrepreneurship as a fourth factor of production beyond land, labor, and capital. Ricardo (1817) noted that capital equipment enables workers to produce more, and that the equipment can only be financed out of savings from the income on earlier production. Malthus (1820) also emphasized building the stock of capital equipment, the parallel need to invest in land improvement, and the persistence of market disequilibria creating opportunities for alert entrepreneurs (Sowell, 1963). Menger (1871) dissected entrepreneurship into four components:

- (a) obtaining information about the economic situation;
- (b) economic calculation—all the various computations that must be made if a production process is to be efficient (provided that it is economic in other respects);
- (c) the act of will by which goods of higher order (or goods in general—under conditions of developed commerce, where any economic good can be exchanged for any other) are assigned to a particular production process; and finally;

(d) supervision of the execution of the production plan so that it may be carried through as economically as possible (p. 160, emphasis in original).

Schumpeter (1911) viewed entrepreneurs less as inventors of new technologies, but more as decision-makers who implement others' inventions. He also saw entrepreneurs less as Turgot's risk-bearing capitalists who own land and capital equipment, but more as innovators who borrow the funds they need from property-owning capitalists.

Knight (1921) distinguished risk from uncertainty. Risk presents us with unknown outcomes or results, but where the probabilities governing the outcome are well-understood and can be precisely defined. These situations can be described with optimization models, such as maximizing consumers' expected utility (Mulligan, 2005). To Knight uncertainty is fundamentally different because it arises whenever the underlying probability distribution is as unknown as the potential outcomes. One source of economic uncertainty is entrepreneurs' innovation and experimentation, which subverts the predictability of outcomes by introducing new potential outcomes. Entrepreneurs both introduce market uncertainty through innovation and help their customers overcome it. Uncertainty also makes it possible for entrepreneurs to earn persistent economic profits that cannot be eliminated through competition (Clark, 1955, 1960).

Mises (1949) defined the entrepreneur as "acting man exclusively seen from the aspect of the uncertainty inherent in every action" (p. 253). To Mises as to Cantillon, Turgot, and Knight, entrepreneurs bear the burden of uncertainty. Mises noted that uncertainty makes everyone an entrepreneur, including consumers who try out new products. Entrepreneurial planning succeeds by overcoming an uncertain future, anticipating emerging consumer demand and evolving demand and supply in factor markets. Entrepreneurs also reconcile each others' interdependent production plans even while competing to satisfy consumer wants (Mises, 1949, pp. 212-214).

Much of Israel Kirzner's (1973; 1978; 2017) work on entrepreneurship can be understood as a detailed critique of the standard view of economic decision-making as a series of deterministic optimization problems (Lewin, 1997; Mulligan, 2005). Kirzner and Hayek stressed the problem of dispersed knowledge that is never possessed in its entirety by any individual (Hayek, 1937; 1945; 1946), a problem whose "extent and seriousness cannot be known in advance" (Hayek, 1945, p. 520) by the entrepreneur, "arising out of unawareness of one's ignorance" (Kirzner, 1984b, p. 16). Lachmann (1986, pp. 65-70, 116-117) also emphasized that entrepreneurial planning seeks to address uncertainty about the future.

Given this bewildering variety of roles for entrepreneurs identified by different scholars, there would not appear to be any simple or straightforward way to model entrepreneurial behavior. Prices cannot be known with certainty until after an exchange occurs, and entrepreneur-

ial planners are never able to optimize with respect to any objectively knowable information set—Knight's (1921) problem of uncertainty. Because much human knowledge is tacit, and inherently decentralized, subjective, and inarticulable (Hayek, 1937; 1945), it becomes particularly difficult to justify blanket assumptions of perfect knowledge and foresight, and especially of perfect mutual knowledge and foresight, which underlie any attempt to view the behavior of producers and consumers as being accurately described by mathematical simplifications (Mises 1957, p. 13).

Entrepreneurship as a Solution to Discrimination

Now that we have reviewed historical analyses of how entrepreneurs drive market process, we will analyze the impact of discrimination on entrepreneurs and the impact of entrepreneurship on discrimination. Although we will focus primarily on African-American entrepreneurs and the discrimination they have faced, their experience applies to varying extents, to entrepreneurs from other minority groups, and to women, who are still relatively less represented in the ranks of entrepreneurs. No other minority groups were subjected to enslavement, though Native Americans, Mexican-Americans, Chinese-Americans, and Japanese-Americans all suffered involuntary relocation or deportation. Minority groups have all suffered violent repression at times, exemplified by massacres of African-Americans in Colfax, Louisiana in 1873; Memphis, Tennessee in 1892; Wilmington, North Carolina in 1898; and Tulsa, Oklahoma in 1921 (Ferguson & Witcher, 2022, pp. 86-111). Numerous massacres of Native Americans occurred between 1623 and 1911, often by the U.S. military.

Compared with whites, historically minority entrepreneurs have been (1) more dependent on friends and family for financing and support, who have fewer resources than comparable networks supporting white entrepreneurs; (2) more likely to focus on highly competitive industries with lower entry barriers and profit margins; (3) less likely to be supported by traditional banks, venture capitalists, and other funding sources, and what conventional financing they do receive is often on less favorable terms; (4) less likely to generate reliable cash flows, limiting opportunities for self-financing and reinvestment, especially compared to white entrepreneurs; (5) less likely to be supported by development, accelerator, incubator, etc. programs. Discrimination may have disadvantaged minority entrepreneurs by limiting their ability to develop the background needed for success and imposing higher learning costs.

Contemporary African-American entrepreneurs include Oprah Winfrey, who built a multimedia and entertainment empire including O magazine and the OWN.2 television network; venture capitalist Daymond John, founder of streetwear clothing maker FUBU and CEO of Shark Group; basketball star Michael Jordan who has marketing partnerships with Nike, Coca-Cola, Gatorade, General Motors, McDonald's, etc.; media moguls Robert L. and Sheila Johnson, founders of BET, Black Entertainment Television, which they sold to Viacom in 2000 for \$2.9

billion; Janice Bryant Howroyd, founder of employment and consulting group ActOne Group, the first African-American, female-led firm to exceed \$1 billion annual income; music producer Sean Combs, better known by his rap names Puff Daddy and P. Diddy, creating the Bad Boy Entertainment label and owing a 50% stake in Cîroc vodka; musicians Jay-Z and Beyoncé founder of clothing maker Rocawear, restaurant and bar chain the 40/40 Club, record label Roc Nation, and the Tidal streaming service; heavyweight boxing champion George Foreman marketer of his eponymous counter-top grill, which he sold in 1999 for \$137.5 million, also investing in EverybodyFights gyms founded by his son George "Monk" Foreman III (Taylor, 2024).

Some examples of Native American entrepreneurs include Chickasaw native Tom Love, who grew a single Oklahoma gas station into Love's Travel Stops with 644 locations in 42 states; Mohawk native Ken Hill, founder of Grand River tobacco; Dave Anderson, who has Choctaw and Chippewa ancestry, founder of Famous Dave's BBQ Restaurants and BBQ Holdings, a chain of 143 restaurants and additional acquired restaurant and brewery chains; Stephen Mills who has Chumash ancestry, founder of AQIWO, an information technology and program management firm; Roxie Schescke, founder of Indian Eyes LLC, a nationwide BTB security, project management, plant operations, and waste management services provider; Choctaw natives Kaben and Shelby Smallwood, who founded Symbiotic Aquaponic, supplying aquaponic systems for sustainable plant and fish production; Victoria Vasques, descended from Californian Diegueño Mission Indians, founded Tribal Tech LLC, a consulting firm which acquired Cowan & Associates in 2019 (Kurt, 2023b). Asian-American entrepreneurs include Eric Yuan who founded Zoom in 2011; Jensen Huang who founded NVIDIA in 1993; Shahid Khan, owner of the Jacksonville Jaguars of the NFL, Flex-N-Gate automotive supply, and All Elite Wrestling, and also provided startup financing for the 24-hour Black News Channel in 2020; Jay Chaudhry, founder of technology firms AirDefense, CipherTrust, CoreHarbor, SecureIT, and Zscaler; David Sun and John Tu, who founded chip-maker Camintonn Corporation, which failed in 1987, but undeterred, founded chip-maker Kingston Technology; Sun Hongbin, founder and chairman of the Chinese real estate giant Sunac China Holdings; Patrick Soon-Shiong, M.D., inventor of cancer drug Abraxane, holder of over 500 patents, founder of ImmunityBio, chair and CEO of bioinformatics firm NantHealth, and owner of the Los Angeles Times and San Diego Union-Tribune; Vinod Khosla, one of the founders of Sun Microsystems and as a venture capitalist provided startup financing for Nexgen and Juniper Networks, also founding Khosla Ventures in 2004, financing both for-profit and non-profit enterprises seeking to make a positive social impact; Jerry Yang, founder of Yahoo and investment firm AME Cloud Ventures, financing data-driven startups; and the exclusive and prolific fashion designer Vera Wang (Kurt, 2023a).

Economic studies of racial discrimination have focused on employment discrimination, but many of these insights either apply directly to entrepreneurship or can be used to analyze minority entrepreneurship because it acts as a substitute for labor—groups facing employment discrimination are more likely to choose entrepreneurial ventures as an alternative. Hutt (1930) argued that South Africa's pro-union legislation privileged white union labor at the expense of minority labor who were excluded from the white unions. Hutt condemned apartheid as a mechanism through which white unions exploited the government's monopoly on coercion to restrict competition, particularly from blacks (Hutt, 1964). Apartheid also suppressed South Africa's gross domestic product, increased domestic prices and production costs, and suppressed South Africa's overall welfare for all groups, but disproportionately impacted black South Africans in every way. Jim Crow legislation had a similar impact in the U.S. (Ferguson & Witcher, 2022).

Becker (1957, pp. 32-38) shows that employment discrimination reduces income for the majority by reducing the extent of the market, though it reduces minority income more. Becker's analysis of discrimination focuses on wage differences, and since entrepreneurial planning is a factor of production like labor, this suggests one approach to analyzing minority entrepreneurship. Alert entrepreneurs look for unexploited opportunities to employ relatively underpaid minority labor. They are also alert to opportunities to market their products to underserved market niches beyond their own group. These strategies simultaneously exploit minority-majority wage and price differentials as they work to overcome them. Whether institutionally formalized or not, discrimination is always an expensive luxury that reduces welfare, though its impact is invariably greater on the minority group (Becker, 1957; Moreno, 2008).

Employment discrimination should shift minorities into entrepreneurship even when they still face discriminatory restrictions on selling their product, or restricted access to financing (Clark & Drinkwater, 2000; Nannestad, 2009). Borjas and Bronars (1989) and Kawaguchi (2005) argued that labor discrimination displaces part of the unemployed minority labor force who turn to entrepreneurial activities, but they also note that these marginal minority entrepreneurs often operate at a disadvantage, frequently lacking comparable levels of education, professional training, access to start-up financing, family/community/cultural support and encouragement, etc. One solution is to remove, disincentivize, or penalize the underlying employment discrimination. However, significant social benefits can also be realized from parallel efforts to support minority entrepreneurs with training, mentorship, revolving loan funds, etc. (Bates et al., 2018; Michaelides, 2021).

From Cantillon's (1755, pp. 66, 124) doctrine of the three rents for agriculture, it should be observed that landlords, suppliers, and farmers come predominantly from the majority group, while agricultural workers are more likely to be minorities, even in the face of purportedly

progressive legislation, such as minimum wage and restrictive licensing legislation intended to earmark those jobs for majority workers. Discriminatory legislation attempts to privilege majority farmers, majority workers in agriculture and industry, majority-owned businesses, etc. When majority and minority laborers compete for the same jobs, public policy has often been implemented to favor the majority—Jim Crow legislation in parts of the U.S., apartheid in South Africa, etc. Minimum wage legislation was introduced to prevent minority workers from competing successfully, as well as lower the total number of workers who could be employed, with the burden of unemployment to be born chiefly by minority groups (Friedman, 1966). Licensing and antitrust legislation are designed to protect established groups from competition, including minority competition, and were often explicitly racist in intent (Ferguson & Witcher, 2022, p. 43). Urban planning has also been an instrument of discrimination, making affluent neighborhoods prohibitively expensive, and preventing any but a token amount of low-cost or high-density housing from being built (Beyer, 2022).

When minority farmer-entrepreneurs and arbitrageurs try to compete, they may be disfavored by popular sentiment and government policy. Minority entrepreneurs contribute to economic efficiency and general welfare by expanding the extent of the market (Lewin, 1997). Majority brokers and consumers may indulge in prejudice, but they can always realize higher profits by dealing with both minority and majority producers and arbitrageurs on an equal basis (Higgs, 2008). Facing a history of discrimination, minority communities would generally have lower levels of savings for financing entrepreneurship. Tax legislation that provides loopholes and exemptions for which only the wealthy qualify amplify and perpetuate this disparity (Bailey, 2010). Furthermore, minority communities have historically faced restricted access to public services and infrastructure (Chetty et al., 2014; Spasova et al., 2019).

Minority entrepreneurs also face greater difficulties in obtaining bank loans, venture capital, and support from business incubators, but this disparity should drive the most entrepreneurial lenders and investors, whether minority or majority based, to specialize in serving underserved markets by developing a comparative advantage in minority startup financing. Daymond John's venture capital partnership Shark Group (Taylor, 2024), Vinod Khosla's Khosla Ventures, and Jerry Yang's AME Cloud Ventures (Kurt, 2023a), among others, all exploit this underserved market. Again, entrepreneurial start-up lenders simultaneously exploit and profit from the disparity as they help bring about its end. If there is enough of a shortage of entrepreneurial financing to the minority, the returns can be higher, especially if markets remain sufficiently segregated that willing lenders are unable to offer adequate or sufficiently favorable financing to erase return differentials.

Producers can use their own savings to cover the costs of production or borrow from others. Without saving,

cash flow constraints would prevent most productive activities. The only exception is the very unusual kind of production that produces immediate revenue, and financing constraints tend to channel minority entrepreneurial efforts predominantly into these ventures which pay from the start. This circumstance has the unfortunate effect of raising time preference among minority entrepreneurs, who would otherwise lead the minority community in engaging in and developing comparative advantage in long-range planning. Low time preference is an important foundation for saving, wealth accumulation that finances entrepreneurship, and entrepreneurial alertness. This is a tangible negative impact of discrimination which holds back minority communities and helps explain lower levels of minority entrepreneurship as well as lower rates of entrepreneurial success.

Historically, enslaved African-Americans were prevented from saving and later discouraged from saving under Jim Crow, imposing a persistent structural disadvantage that suppressed the intergenerational wealth accumulation necessary to finance entrepreneurial ventures (Ferguson & Witcher, 2022, pp. 68-72). Capitalist-entrepreneurs also seek the highest return on their savings, which is why majority lenders and venture capitalists who finance minority entrepreneurs may be seen as predatory.

Say (1803) noted that entrepreneurs may (a) use their own capital equipment, or (b) lease equipment from owners, (c) borrow financial capital at interest, which they use to purchase or lease the physical capital they need, or (d) be hired by the owner of capital equipment to manage an enterprise for the owner's benefit. Majority entrepreneurs are more likely to fall into categories (a) and (b), while minority entrepreneurs are more likely to fall into categories (c) and (d). In category (d), when the minority entrepreneur works for the majority capital owner, profits are shared between the entrepreneur and the capital owner. In this case it is the capital owner who suffers from failure of the entrepreneurial plan, though the entrepreneur's security as an employee can also be jeopardized. The returns for majority entrepreneurs are generally higher though riskier because of the category they fall into.

Ricardo (1817) and Malthus (1820) both noted that workers could produce more if they have more capital equipment, the purchase of which can only be financed out of savings from the profits on past production. Again, this suggests minority entrepreneurs are systematically disadvantaged. The amount that can be produced is strictly limited by the number of workers, that is, by a country's population, the amount of land available, and the amount of capital equipment.

The more segregated a society, the more minority access to land and capital will be limited. Chetty et al (2014) analyzed how differentials in availability of public services also contributed to unequal outcomes for minority groups. This results in the minority group, out of necessity, specializing in more labor-intensive, lower-income activities. To some extent, however, it should also lead minorities to specialize in entrepreneurial planning,

though still disadvantaged by restricted access to land, physical capital, public infrastructure, and financial resources. By limiting minority employment, discrimination shifts minorities into riskier entrepreneurial activities, where marginal minority entrepreneurs are not as well-positioned to succeed. Poor start-up financing imposes further risk for minority entrepreneurs (Caliendo et al., 2009; Cramer et al., 2002; Legohérel et al., 2004). Entrepreneurs invest in capital equipment, which tends over time to further amplify the advantage to the better-financed majority group, though this disparity is transitory because the equipment wears out through depreciation.

Menger's entrepreneurial planners are alert to information, prevailing business conditions, and potential opportunities (Kirzner, 1978). Majority entrepreneurs can better afford the luxury of viewing the economy through a color-blind lens, but minority entrepreneurs and workers will generally be more aware of the discrimination they suffer directly and their smaller opportunity set. Entrepreneurs fit their production plans into a hierarchy of highest to lowest-order goods. Highest-order goods are unprocessed natural resources. Entrepreneurs add value at each stage of production through a succession of progressively lower-order goods progressively less remote from final consumers, to the first-order goods that directly satisfy consumer wants.

This process works better and becomes more efficient and less costly over time, the more people who contribute to improving it through entrepreneurial experimentation. Since any discriminatory restrictions on market participation by minority groups limit the extent of the market, discrimination also implicitly penalizes the majority (Smith, 1776, Ch. 3). Discriminatory restrictions like Jim Crow and minimum wage legislation directly benefit small segments of the majority group but penalize everyone else with higher production costs and reduced output—all the drawbacks and deadweight loss of market concentration without the profit or consumer benefit (Ferguson & Witcher, 2022, pp. 38-41). Entrepreneurial services are essential to all production, and thus must be rewarded with profits. Discrimination which disadvantages minorities is an especially expensive luxury that profit-maximizing entrepreneurs and utility-maximizing consumers can ill afford (Moreno, 2008; Mulligan, 2005).

Mises (1949) holds that,

the market is a process, actuated by the interplay of the actions of the various individuals cooperating under the division of labor. The forces determining the—continually changing—state of the market are the value judgments of these individuals and their actions as directed by these value judgments. The state of the market at any instant is the price structure, that is, the totality of the exchange ratios as established by those eager to buy and those eager to sell. There is nothing inhuman or mystical with regard to the market. The market process is entirely the resultant of human actions. Every market phenomenon can be traced back to definite choices of the members of the market society. The market process is the adjustment of the individual actions of the various members of the market society to the requirements of mutual coopera-

tion. The market prices tell the producers what to produce, how to produce, and in what quantity. The market is the focal point to which the activities of the individuals converge. It is the center from which the activities of the individuals radiate (pp. 257-258).

A market is not free if anyone is prevented from contributing to improving its efficiency and enhancing the welfare it offers participants, profiting from doing so to the extent they succeed. A more meaningful way to consider the influence of entrepreneurial planning, alertness, and innovation on market outcomes is to recognize that the work of the entrepreneur proceeds experimentally and therefore generates market information through trial and error. This information only becomes apparent after a mutually-beneficial exchange takes place (Buchanan, 1986). Discrimination prevents some of these exchanges from occurring, and so reduces welfare, both for the majority and the minority.

Successful minority entrepreneurship has engendered majority backlash displayed in further prejudice and discrimination to the point of violence (Norrell, 2009, pp. 69-70). This is often manifested through discriminatory legislation, regulation, or differential enforcement (Harvey & Conyers, 2020).

Discrimination I: Segmented Markets

First consider the most extreme case of discrimination where minority and majority markets are absolutely segregated. In this construction minorities are completely excluded from majority labor markets and foreclosed from startup financing, and majority consumers will not buy from minority producers, perhaps being legally prohibited from doing so. In this situation, the price of discrimination is that all firms, majority and minority, are denied access to the whole labor market, imposing higher labor costs and lower productivity on both groups. The same effect will be seen for startup financing, which must be universally allocated to less productive activities, therefore yielding a strictly lower return to investors. Consumers cannot satisfy their wants as well because they do not have access to the whole market which includes both sets of producers.

Product arbitrage can still benefit both groups in segmented markets (Higgs, 2008). Arbitrage provides benefits analogous to gains from international trade. The benefits of lowered production costs that could be obtained by employing labor and entrepreneurial talent in their lowest-cost, highest-productivity uses, is completely foregone. Discrimination locks minority labor into lower-paying jobs producing less-desired, lower-valued output. Discrimination against minority entrepreneurship similarly limits both the extent and value of what a society can produce.

Discrimination II: Preferred Habitats

Even in the most discriminatory environments, there is likely to be some straying from preferred habitats because that is one of the easiest strategies to lower costs and increase productivity. Even when minorities suffer legal or

de jure discrimination, or only cultural or de facto discrimination, any alert entrepreneur who observes the benefits of employing, financing, or otherwise trading with the other group, profits first for themselves, secondarily boosts total welfare, as well as helping break down the discriminatory environment by expanding the extent of the market.

In the preferred habitat model minority and majority markets may be informally segregated, but there will already be a higher degree of economic integration between the two groups. In this construction minorities are not entirely excluded from majority labor markets, though they may still be subject to varying degrees of discrimination. Minority entrepreneurs have some access to startup financing, but less than majority entrepreneurs, and generally on less favorable terms. The more effective discrimination against minority labor and entrepreneurial finance, the more handicapped the economy. Preferred habitats can exist on a continuum from absolutely segmented markets to full economic integration.

As with segmented markets, beneficial product arbitrage can still benefit both groups, though there will be less scope for, and benefit from, arbitrage in product markets. The principal scope for arbitrage across preferred habitats will be for hiring underpaid minority workers at higher wages and offering better terms to underfinanced minority entrepreneurs. This kind of arbitrage provides entrepreneurial profits to labor-hiring firms and start-up financing venture capitalists. It also reduces and ultimately removes minority-majority wage and profit differentials. Higgs (2008, p. 120) found that wages paid to white and African-American agricultural were virtually identical in the rural South over the whole Jim Crow era. The more favorable resource allocation this brings about helps move the economy naturally away from segmented markets and segregation.

Celebrated African-American entrepreneur Madam C.J. Walker presents something of an exception to this rule. Many items of her cosmetics line could not be marketed to wider communities, though her firm successfully expanded their consumer base to the Caribbean and Central America (Bundles, 2001). Her highly successful strategy seems to have been to fully dominate the African-American market and ignore potential white consumers. Walker's marketing practices emphasized beauty parlor sales, door-to-door marketing, and advertising in the African-American press, to the exclusion of mainstream retail outlets like drugstores. However, some parts of her product line could have been marketed to wider markets, and this appears to have been an unrealized opportunity she either never perceived, or which may have met with resistance.

Entrepreneurs as Monopolistic-Competitors

When minorities face employment discrimination, they are highly likely to face simultaneous discrimination as entrepreneurs (Spasova et al., 2019). However even blatant discrimination against minority entrepreneurs leaves

more margins for them to exploit, whether catering solely to minority consumers or to majority consumers as well. In some ways, discrimination encourages minority entrepreneurship because institutionalized employment discrimination is generally more effective than policy measures that attempt to discriminate against entrepreneurs. Even if minority entrepreneurs face an uphill battle to achieve acceptance from majority consumers, gain equal access to startup financing, overcome discriminatory regulation, they are likely to focus on entrepreneurial innovation where discrimination is less effective and has less direct impact.

Entrepreneurs introduce new products and differentiate familiar ones to better satisfy their target demographics (Geroski & Mazzucato, 2003). This enables them to achieve monopolistic-competitive market concentration and earn persistent profits even in competitive markets (Chamberlin, 1933). As competition from imitative new entrants erodes the initial monopoly profits, many entrepreneurs introduce further innovations that preserve their market power and concentration. A monopolistic-competitive entrepreneur can charge a higher price for a lower amount of output, and generally will do so when that will increase their profits. Unlike a competitive firm which is a price taker (Clark, 1955; 1960), monopolistic-competitive entrepreneurs can sell more output by lowering the price, meaning that the marginal revenue from selling more product is always downward-sloping below the demand curve (Figure 1). For a competitive firm, the marginal revenue curve is horizontal at the market price which a competitive firm, being a price taker with zero market power, cannot affect.

Although monopoly rents—increased revenue from the higher prices monopoly firms can charge—are conventionally viewed as resulting from market failure, this is only true for monopoly power that results from government favoritism (Mitchell, 2014). Monopoly power from entrepreneurial innovation comes from successfully improving consumer welfare. This is in diametric opposition to monopoly power conferred by government, which comes only at the expense of consumers (Armentano 1990, pp. 168-170; 2007). The higher price successfully charged by a monopolistic-competitive supplier can only be justified if the product benefits consumers in the target demographic. There are many dimensions for entrepreneurial innovation in a monopolistic-competitive market, such as differentiating product characteristics, marketing for specific applications or uses of the product, marketing to demographic niches including minorities, etc. Members of a target demographic must receive added value to justify paying a higher price. Differentiating characteristics may not provide the same benefits beyond target demographics. It is also possible that a generic product can be marketed differently to different groups of consumers (Geroski & Mazzucato, 2003).

Today, the image presented in a multi-media marketing campaign might attempt to differentiate a product from alternatives, identify different applications, uses, proper-

ties, aspirations, etc. in traditional media, in sharp contrast to what is portrayed on new media, because different marketing vectors generally reach different age groups. For example, an ad designed for LinkedIn or Facebook might target an older age group, than ads or popups for Instagram, X (Twitter), SnapChat, or other platforms which typically reach younger demographics. Generally, as new media platforms are introduced and enjoy at least a passing vogue, the newer the media, the younger the demographic. Virtually all entrepreneurs advertise and promote their product, but Oprah Winfrey, Michael Jordan, Robert L. and Sheila Jordan, Sean Combs, Jay-Z and Beyoncé (Taylor, 2024), Eric Yuan, Jensen Huang, Shahid Khan, Dr. Patrick Soon-Shiong, Vinod Khosla, and Jerry Yang (Kurt, 2023a) innovated in various forms of traditional or new media.

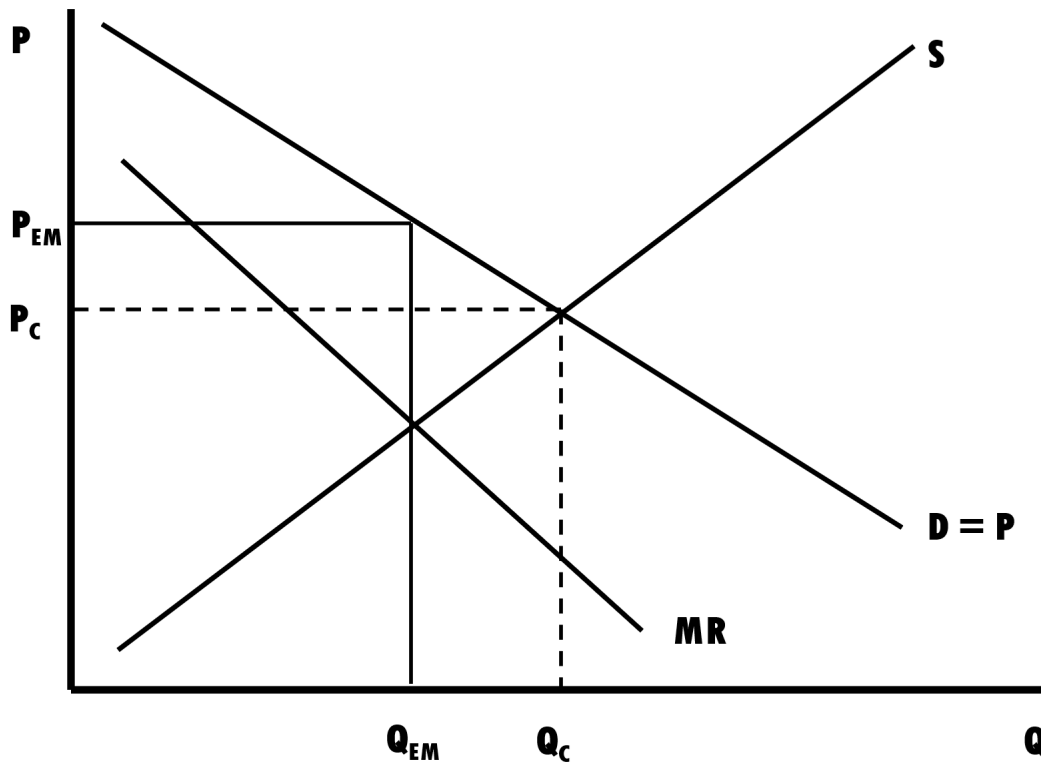
To summarize, discrimination limits minority opportunities, but one effect this has is to shift minority group members into entrepreneurial ventures and away from conventional employment with discriminating firms or unions, because discrimination against innovative entrepreneurs is less effective than other forms of discrimination. Successful entrepreneurs capture market share and earn profits by benefitting consumers. Arbitraging banks and venture capitalists who are alert to discrimination and its market impacts help overcome it. Discrimination operates on a continuum between absolute market segmentation and integration, with perfectly integrated, non-discriminatory markets contributing the most to improve welfare for both minority and majority groups.

Entrepreneurial Innovation and its Diffusion

Successful innovations improve consumer welfare and help integrate the economy by alleviating discrimination. To the extent that discrimination segregates minority and majority groups, both can benefit from innovations introduced by and among the other group. It is helpful to distinguish between first-order and second-order innovation. Both kinds provide entrepreneurial profits by improving consumer welfare.

First-order innovators act on a unique awareness of an unperceived market opportunity and how a new product can address it (Kirzner, 1979; 1984a). To address this need they introduce a new product which succeeds or fails. If the product meets consumer needs, initially the first-order innovator has a monopoly and may further benefit from being a monopsony buyer of inputs with no other use. Robinson (1933, p. 220) shows how monopsonist buyers use their market power to purchase lower quantities of inputs at lower prices than would prevail under competition. This provides additional profits to entrepreneurial innovators.

One example of a first-order innovator was African-American inventor-entrepreneur Lewis Temple, born in slavery in Richmond, Virginia in 1800. Temple's owner had him trained as a blacksmith, and he escaped to New Bedford, Massachusetts where he served the lucrative whaling industry supplying and repairing implements and

Figure 1*Entrepreneurs as Monopolistic-Competitors*

Note. On the vertical axis, P = Price, P_{EM} = Entrepreneurial innovators' monopolistic-competitive price, P_C = Competitive price; on the horizontal axis, Q = Quantity, Q_{EM} = Entrepreneurial innovators' monopolistic-competitive quantity, Q_C = Competitive quantity; S = Supply curve, D = Demand curve, MR = Marginal revenue curve. This diagram shows supply and demand for a generic product graphed in price P versus quantity Q space. In a competitive market, the producer is a price taker, and the intersection of the industry supply curve S and the demand curve D facing the industry determines both the market price P_C and the competitive output level Q_C . Since the competitive firm is a price taker, it faces horizontal demand at the competitive price P_C . In contrast, entrepreneurial firms introduce new products and innovate in product differentiation, giving them some level of monopoly power, including limited ability to set prices. Price-setting entrepreneurs can sell more by lowering their asking price in accordance with the downward-sloping demand curve, labeled $D = P$ to show that the price falls as the quantity sold increases. This contrasts with a competitive firm, which can sell any amount of output at the market price, and as a result, marginal revenue for a competitive firm is horizontal at the market price. For an entrepreneurial innovator, price falls as more output is sold, so the marginal revenue curve MR is downward-sloping below the demand curve. Marginal cost of production determines the location of the upward-sloping supply curve. The firm maximizes profits by setting marginal revenue equal to marginal cost. For an entrepreneur with a partial, full, or temporary monopoly, they maximize profit by producing a smaller amount of differentiated output Q_{EM} which they are able to sell at a higher price P_{EM} , compared with the competitive output Q_C and price P_C .

ship fittings. He designed an improved iron harpoon, the Temple toggle iron, based on Inuit bone models brought back by his customers. Temple's harpoon became the industry standard though he did not patent it (Kaplan, 1953). The fact that he chose not to patent his design kept him from fully capturing potential monopoly profits, but probably contributed to the design's widespread and rapid adoption. His favorable location in the most important U.S. whaling port may have enabled him to sell more harpoons and generate more revenue than if he had tried

to preserve a monopoly. Another first-order innovator was Annie Turnbo Malone who innovated in cosmetics and hairdressing products (Whitfield, 2016). Malone focused particularly on training a cadre of hairdressers and cosmetologists through her Poro Beauty Colleges in St. Louis and Chicago who then provided steady demand for her products. Yet another first-order innovator was Robert Gordon, a coal broker who implemented his initial business model while still enslaved, finding and exploiting new industrial applications for otherwise worthless coal

byproducts. He saved enough to buy his freedom in 1846, relocated to Cincinnati, Ohio, and actively supported the Underground Railroad (Woodson, 1916; 1937).

Next come second-order innovators, who observe the first-order innovators and piggy-back on their successes or failures. Second-order innovators may introduce improvements to the first-order innovator's product, firm organization, production methods, marketing techniques, etc. They may introduce cheaper production methods or substitute cheaper inputs for more expensive ones. Minority second-order innovators will often identify new market niches and target demographics the first-order innovator overlooked, or reach minority market niches better, essentially tailoring product characteristics to better meet the needs of specific demographics. For example, Madam C. J. Walker, born Sarah Breedlove to a formerly enslaved family in Louisiana in 1867, worked briefly as a door-to-door sales representative marketing Annie Turnbo Malone's Poro system products. After producing an effective home remedy for her own hair loss, Walker applied entrepreneurial awareness to address a market need, elaborating on and refining Malone's product line and marketing approaches. Walker's approach to training representatives and was more focused, less encompassing, and could be delivered in multiple locations, compared with Malone's Poro Beauty Colleges, but each served distinct market niches. Together, they trained and supplied generations of African-American hairdressers and cosmetologists.

Second-order innovators exercise entrepreneurial awareness when they realize that they can imitate the first-order innovator, and how they can implement an imitative process that makes best use of their special areas of competence. Madam C.J. Walker's product line and cosmetics marketing strategy provides an example of second-order innovation which improved on the methods and product line she observed as a marketing representative for Annie Turnbo Malone's Poro system. It is notable that Malone and Walker refrained from engaging in the second-order innovation of marketing their products beyond African-American consumers. Their perception may have been that the potential return would have been lower or less predictable, or perhaps that it might have generated racist backlash. Coal broker Robert Gordon was a first-order innovator in finding uses for coal byproducts and in successfully marketing these alternative products to appropriate industrial users that could benefit from them. He was a second-order innovator in establishing his prosperous coal dealership in Cincinnati, Ohio, and later in expanding into real property development, in both cases particularly benefitting from the city's post-Civil-War expansion (Woodson, 1916; 1937). Like many entrepreneurs, Malone, Walker, and Gordon were prolific philanthropists, particularly benefiting educational institutions, orphanages, and indigent relief.

Second-order innovators bypass much of the risk first-order innovators assume. Whenever a first-order innovator neglects minority markets, this always presents an opportunity for minority entrepreneurs to introduce sec-

ond-order innovation to serve minority consumers. Similarly, until and unless imitators appear, the first-order innovator enjoys a monopoly in the market where the product is sold to final users. If the first-order innovator can maintain entry barriers, for example, by successfully lobbying the government for protective regulation, their market advantage can be preserved (Tullock, 1967), but otherwise competing entrepreneurs will be attracted, both by below-competitive-market monopsony input prices, as well as the above-competitive-market monopoly output prices, eventually reducing the first-order innovator's profit margin (Armentano, 1990, pp. 42-45).

All innovators face uncertainty and assume risk in that they pay the price if what they attempt fails. This is why entrepreneurs need to pursue, not the most glamorous or most widely recognized opportunities, but those where they can apply their own specialized local knowledge to meet consumer needs and provide new opportunities to increase social cooperation and mutual, coordination among all the entrepreneurial plans in the economy (Kirzner, 1996, pp. 39-41). Entrepreneurs who have succeeded in one area often apply their special expertise and experience in related areas, for example Oprah Winfrey's expansion beyond television into other media, George Foreman's partnership in his son's gym chain (Taylor, 2024), Dave Anderson's diversifying his restaurant chain, Victoria Vasques' acquisition of Cowan & Associates (Kurt, 2023b), Jay Chaudhry's series of IT firms, and partners David Sun and John Tu, who parlayed their experience with an initial failure to ultimately achieve success (Kurt, 2023a). Minority entrepreneurs generally have comparative advantage in anticipating consumer preferences in their own community and culture. Even beyond viewing minority groups as specialized niches, minority entrepreneurs make additional contributions to the economy's welfare-improving potential, benefiting both majority and minority groups.

Ideally, the entrepreneur has studied and acquired specialized knowledge of their product and its potential markets and applications. They are alert to strategies others have attempted in the past, what has failed and what has succeeded, and can construct and implement new strategies to address specific consumer wants they are the first to infer, conceive of, or anticipate (Kirzner, 1984b; 1997). Because entrepreneurs are not omniscient, some fail, so financial intermediaries and venture capitalists, acting in their own self-interest, must carefully ration whatever start-up financing they control. The information entrepreneurs provide investors is at least one step further removed from the realities of the product markets—generally lenders' expertise is more financial than practical—and inevitably credit is rationed in a conservative manner that is more likely to overlook minority entrepreneurs and consumer bases, where traditional majority lenders are less likely to have any comparative advantage in understanding or appreciating.

However, whenever less financial capital is allocated to minority entrepreneurs, this also creates arbitrage opportunities that reward lenders and venture capitalists most

willing to remedy these shortages. Since the end of Jim Crow, regulatory privilege has been color-blind *de jure*, but almost invariably favors established enterprises at the expense of potential entrants for whom the cost of compliance is prohibitive (Ferguson & Witcher, 2022, pp. 48–50). Regulatory barriers to entry, including licensing, permitting, and zoning requirements, and various other regulatory restrictions, have a disproportionate impact on minority entrepreneurs and consumers, generally rendering these regulations discriminatory *de facto*.

Innovation Spreading from the Majority to the Minority Community

Even if we assume minority and majority markets are absolutely segregated, there is still an opportunity for imitation across groups—a form of second-order innovation. Since entrepreneurs actively imitate successful strategies, there can be little doubt they will do this across racial and ethnic lines. More realistic is the model of preferred habitats, where perceptions of sufficiently high profits can persuade entrepreneurs to serve both groups, always benefiting both. The larger group of majority entrepreneurs is likely to serve minority consumers, and added to and competing with the smaller group of minority entrepreneurs, will serve this community better than if the two groups were more rigidly segregated. Although successful innovation that spreads from majority entrepreneurs to minority consumers benefits the consumers—it has to or it would not offer any additional profits for the majority entrepreneurs, the greatest benefit is to the majority entrepreneurs, who get to sell to a larger market. There will also be some benefits of scale economies, though these will probably not be overwhelming (Leibenstein, 1966).

Scale economies arise whenever the fixed costs of production can be spread over more units of output. A larger majority firm with a larger scale of operations and output would benefit more from scale economies than a smaller minority firm, provided the two firms employed the same technology. One mode of entrepreneurial innovation is to devise or apply new cost saving technology. However, in the absence of new technology, scale economies tend to benefit majority entrepreneurs, especially where majority consumers discriminate strongly against the minority group, with a stronger effect the greater the numerical difference between the two groups and the more segregated they are. Generally, the majority market has more consumers and entrepreneurs and therefore provides greater scale economies. Minority entrepreneurs are not as well positioned to benefit from the same scale economies unless they can sell competitively to majority consumers. This scale economy differential acts as a barrier to entry against minority entrepreneurs, which is even more impenetrable if markets are rigidly segmented. Entrepreneurs should always embrace serving any minority market or additional market niche because the benefits of expanding the extent of the market offer opportunities for scale economies.

Innovation Spreading from the Minority to the Majority Community

Minority entrepreneurs are also innovators. Minority entrepreneurs can introduce innovations to benefit majority consumers, though the number of minority entrepreneurs will nearly always be far smaller than the number of majority entrepreneurs. This is generally true even though labor discrimination can result in the proportion of entrepreneurs as a fraction of the minority population being greater than among the majority (Becker, 1957). Exclusion from employment opportunities tends to push minorities toward alternative careers like entrepreneurship (Borjas & Bronars, 1989; Kawaguchi, 2005; Spasova, 2019). With labor discrimination, there is no corresponding pressure on the majority that drives them toward entrepreneurship since their employment opportunities remain unimpaired by discrimination.

Two examples of African-American entrepreneurs who served both minority and majority markets are Lewis Temple, an innovative blacksmith and inventor who supplied the whole whaling industry with his improved harpoon (Kaplan, 1953), and coal-broker Robert Gordon, who established new markets and industrial applications for waste byproducts (Woodson, 1916; 1937).

Minority innovation diffuses from entrepreneurs who were initially established in a relatively small niche market. By expanding their output and perhaps tailoring their product line for majority preferences, minority entrepreneurs benefit from the scale economies from producing for sale to a wider group but may also capture dramatically higher profits and scale economies (Leibenstein, 1966). Scale economies are more likely to benefit majority entrepreneurs, especially where minority firms and entrepreneurs face discrimination. Majority firms are likely to benefit from greater scale economies because they are more likely to have access to a larger market and face greater demand for their product. The same scale economies are less available to minority entrepreneurs unless they can avoid consumer discrimination and compete effectively in majority markets. They may also face institutional-regulatory discrimination in the form of price controls, land use zoning, licensing, permitting, etc., all of which disproportionately disadvantage minority entrepreneurs and new entrants (Harvey & Conyers, 2022).

Discriminatory Regulation and Other Problems of Government Policy

De facto discrimination may result from cultural preferences which can be weakened over time as individuals observe and experience the economic benefits of voluntary exchange across demographics. *De jure* discrimination is explicitly legislated, and the only remedy is voter desire for democratic reform. Many kinds of government intervention have discriminatory effects, even when their intent was not explicitly discriminatory. Different forms of government intervention include minimum wage legislation, licensing, taxation, inflation, zoning, urban plan-

ning, antitrust regulation, etc. (Kleiner & Kudrle, 2000). Each penalizes minority communities in different ways.

Government policy to address disparities is predictably schizophrenic—although the government earmarks a portion of expenditures for minority firms, the overwhelming impact of government regulation is to protect established firms with significant resources they can use to lobby for protective regulation (Mitchell, 2014; Tullock, 1967). Established firms are predominantly majority owned and managed. This impact can be seen through professional licensing requirements and regulations which impose prohibitive zoning, inspection, certification, and regulatory costs on new startups, and which disproportionately burden minority firms and entrepreneurs. These considerations help explain why minority entrepreneurs are relatively overrepresented in activities with low barriers-to-entry and low profit-margins (Bates et al., 2018).

Antitrust enforcement may be invoked against firms that achieve high levels of market concentration. In the absence of high market concentration, it would not generally appear that antitrust prohibitions would apply in the first place. Furthermore, to the extent antitrust enforcement succeeds against firms without high market concentration, it would not appear that these actions have accomplished much. High market concentration is generally taken as *prima facie* evidence of monopoly behavior; however it can also result from firms' greater success in satisfying consumer wants (Tullock, 1967). To the extent that this is the case, antitrust regulation penalizes firms directly for successfully satisfying consumer wants, and indirectly penalizes their consumers for having those wants. This is problematic for several reasons.

It is difficult for minority entrepreneurs to achieve high market concentration in segmented markets where they are excluded from the majority market. Thus, although discrimination is always detrimental, it can help shield minority enterprises from likely antitrust enforcement. In this limited sense discrimination can benefit minority entrepreneurs. A mixed economy which combines liberal and socialist principles embodies a certain inconsistency. Liberal principles argue that entrepreneurial profits demonstrate that entrepreneurs are successfully improving consumer welfare (Ikeda, 1998). The socialist perspective is that the profits of successful entrepreneurship are always and everywhere evidence of exploitation, especially if the consumers whose welfare is improved by an entrepreneurial venture are minorities facing discrimination.

Many monopolies are exempt from antitrust regulation because they operate under government sponsorship (Lombardo & Mulligan, 2010; Mulligan & Lombardo, 2008). The legal authority for the government to exempt favored firms from obeying certain laws is questionable, violating equal protection of the laws. The firms that operate under these exemptions are protected from prosecution under the common law doctrine of entrapment by estoppel. The rationale is that since the firms are colluding to fix prices at government request and under govern-

ment sponsorship, the government cannot turn around and prosecute them for violating the law.

This creates a moral hazard. Firms that acquire market share through satisfying consumer wants still risk antitrust prosecution. In most cases, these firms are doing something beneficial, though the market concentration they achieve by benefiting large swathes of consumers may technically be illegal or otherwise violate public policy. In sharp contrast, firms that collude under government sponsorship cannot be prosecuted for antitrust violations. These firms acquire market share not by satisfying consumer wants, but because they facilitate government planning and intervention. This will rarely maximize welfare or help satisfy consumer wants (Mulligan, 2005).

To avoid selection bias, market concentration should be treated more as a necessary but not sufficient condition for antitrust prosecution. Concentration due to entrepreneurial innovation does not violate sound antitrust prohibitions and should not only never be prosecuted, but should be encouraged by public policy. Concentration under government sponsorship is always and everywhere detrimental but is always exempt from prosecution. Concentrating antitrust prosecution on the first group exposes them to greater risk over and above the market risk innovators must always overcome. Although minority entrepreneurs are relatively risk tolerant (Caliendo et al., 2009), there is no justification for policy which subjects them to greater risk as minority entrepreneurs. Note that the second group, which enjoys bureaucratic sponsorship, is as exempt from antitrust regulation as from any possibility of contributing to social welfare.

Minority entrepreneurs are less likely to receive government sponsorship for collusion, and if their collusion and monopoly pricing is government-sponsored, by definition their price collusion will not benefit minority consumers. The one favorable feature of antitrust policy for minority entrepreneurs is that successful minority entrepreneurs face lower risk of antitrust prosecution, though they are also less likely to achieve a high level of market concentration. Regulators might also consider the unfavorable optics of prosecuting minorities for antitrust violations. In summary, many kinds of government regulation, though not explicitly discriminatory, have disproportionate impacts on minority communities and entrepreneurs.

Because government regulation has a greater negative impact on minority entrepreneurs, firms, and communities, legislators and regulators should avoid continuing proliferation of new legislation that imposes minimum wages, price controls, licensing requirements, taxes and fees, zoning and land-use planning, etc., and should seek wherever possible to roll back these restrictions. Any discussion of regulatory reform, and particularly of expanding existing regulations and restrictions on commerce and innovation, must consider the disproportionate impact regulation may have on minority entrepreneurs and communities.

Conclusion

This paper reviewed historical analyses of how entrepreneurship drives market process given by Cantillon, Turgot, Smith, Say, Menger, Schumpeter, Mises, Hayek, and Kirzner. These analyses were applied to economies where minorities face discrimination in segmented markets or preferred habitats. Past analyses of the economics of discrimination generally focused on labor discrimination, particularly those by Hutt and Becker. In some ways discrimination against minority entrepreneurs is just a special case of discrimination in general, and thus can be treated as directly analogous to labor discrimination. However, labor discrimination also tends to drive minority group members toward entrepreneurship, because in many ways discrimination against entrepreneurs is often less widespread and less effective.

The role of entrepreneurial arbitrage in breaking down discrimination was also developed. Segmented market and preferred habitat models of discrimination were also applied to understand how alert entrepreneurial planners seek out opportunities to hire underpaid minority labor and serve neglected demographic niches. The more entrepreneurial innovators arbitrage across demographic barriers, the more they contribute to breaking down discrimination and better integrate the economy to the benefit of all. It was argued that majority entrepreneurs benefit more from scale economies, which will be stronger the more segregated the two groups are, and the greater the disparities in population size and wealth between the two groups. Differentials in scale economies act as a barrier to entry against minority entrepreneurs, however the gains from economic integration will be greater for minority entrepreneurs as they need to scale up more to serve the whole economy.

Government regulation overwhelmingly acts to protect established firms at the expense of new entrants including minority competitors. Established firms are predominantly majority owned and managed and can devote significant resources to lobbying for protective regulation (Harvey & Conyers, 2020). Successful entrepreneurial innovation creates at least short-term monopoly profits. Firms can lobby for protective regulations to preserve their monopolies, though the most entrepreneurial firms move serially from one innovative experiment to the next (Tullock, 1967).

Segregated communities benefit each other and increase total welfare by engaging in trade, with the maximum benefit to both groups resulting from the total economic integration that signifies the end of discrimination. The more realistic preferred habitat model recognizes that sufficient benefits will persuade consumers and startup financiers to patronize entrepreneurs they would formerly have discriminated against. Real economies exist on a continuum ranging from absolutely segmented markets as one extreme, to total integration and a complete absence of discrimination as the other. Mutually beneficial exchanges habituate people to broaden their horizons and overcome established prejudice and discrimination. The

paper also discussed the mechanics of how innovation and entrepreneurial benefits spread across groups.

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Acknowledgements

I am indebted to Gregory N. Price and Tiffany Bussey for much fruitful and generous discussion and for making me aware of the literature on labor discrimination which displaces minority workers into relatively marginal entrepreneurial activities where they are subject to additional obstacles not faced by non-minority entrepreneurs (Borjas & Bronars, 1989; Kawaguchi, 2005).