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Portfolio decisions and perceived racial discrimination☆

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ABSTRACT

We use data from the US Health and Retirement Study to examine the relationship between individual portfolio decisions and perceived discrimination, with a focus on racial discrimination. We show that sensing racial discrimination has a bigger association with shaping portfolio decisions than any other type of discrimination. Perceived racial discrimination is correlated not only with the choice to opt-in risky financial assets, but also the amount of assets held. Specifically, racial discrimination is associated with reducing the probability of holding risky assets by 4.0% and reducing the amount of these holdings by 4.2%. Most of the respondents who report being racially discriminated against, are non-White, and thus such experiences add to the racial wealth inequality.

1. Introduction

Wealth inequality in the US is stark and growing, with the gap becoming wider across race comparisons (Boulware and Kuttner, 2020). According to the Federal Reserve Bank of St. Louis, as of 2019 the median wealth of the typical White family was USD 184,000 compared to USD 38,000 for the typical Hispanic family and USD 23,000 for the typical Black family. Moreover, in 2016, among the top 1% wealthiest families in the country, only 2% were Black and 2% were Hispanic (Darity et al., 2018). In general, an overwhelming majority – approximately 82% of Black families and 76% of Hispanic families – possess less financial and physical assets compared to White families (Emmons, Kent, & Ricketts, 2019).

Wealth and financial security depend on many factors, but primarily important are income, saving and investment decisions, home ownership, and transfers across generations. Although one should expect no differences in wealth accumulation based on race, data consistently show that race has a significant explanatory power on wealth (Boulware and Kuttner, 2020; Lusardi, 2005), illustrating the effects of discrimination. Historically underrepresented minorities are less likely to hold assets with high risk and high upside potentials such as stocks, compared to White individuals (Bhutta et al., 2020b). As of 2019 more than 60% of White families have direct/indirect stock ownership, in contrast to 33.5 and 24.2% for Black and Hispanic families respectively. White families have an average of USD 50,600 in stocks compared to less than USD 14, 900 for both Black and Hispanic families (Bhutta et al., 2020b). The vast difference in wealth between minority groups and White individuals seems to be driven, among other reasons, by the systemic racial discrimination existing in the US since the establishment of the country (Asante-Muhammed et al., 2016; Schell et al., 2020; Williams, 2017).

Although the impact of racial discrimination on wealth has been studied through its mediating effect on health, education, socioeconomic status, and social networking among others, to the best of our knowledge there are no studies examining the link between portfolio composition and the *perception* of being racially discriminated. We employ US survey data from the 2006-2018 waves of the Health and Retirement Study (HRS) in order to (i) Investigate the relationship between portfolio decisions and the perception of being discriminated against; (ii) Study the connection between portfolio decisions and feeling racially discriminated; (iii) Study if the frequency of the perceived discrimination matters on portfolio decisions.

This is the first study to show that racial discrimination relates to

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portfolio decisions more than any other kind of discrimination. Feeling racially discriminated is relevant to describe not only the choice to opt-in risky financial assets, but also the amount of assets held. In our preferred estimates, self-assessed experiences of racial discrimination decrease the probability of holding risky assets by 4.0%, and the amount of these holdings by 4.2%. Our results provide evidence to the speculations in Petach and Tavani (2021) that the permanent racial gap on portfolio returns is driven by racial discrimination.

2. Literature review

Racial discrimination against minority groups is a reality across different dimensions such as police treatment, healthcare, labor markets, education and voting rights, among others. Racial discrimination is evident in financial matters as well. Financial institutions have consistently discriminated against minority groups by totally banning funding or offering loans at unjustified higher subprime rates (Cheng et al., 2015; Ghent et al., 2014; Hammond, Massey, & Garza, 2019; Reid et al., 2017). Black and Hispanic borrowers are about 2.5 times more likely to be denied credit compared to White borrowers of the same income level (Bartlett et al., 2022), while the extra aggregate interest charge for minority groups is about USD 756 million (Bartlett et al., 2022). Furthermore, the quality of financial consumer services is poorer for minority groups (Begley and Purnanandam, 2021). Borrowers with names that are more common among underrepresented communities do not receive the same number of responses to their questions, compared to other consumers with traditionally 'English' names (Hanson et al., 2016). These discriminatory practices generate mistrust and extra reluctancy amongst minority groups, deterring them from participating in a non-inclusive financial system.

Our study investigates the link between perceived discriminatory practices, with a focus on racial discrimination, and the portfolio choices of non-White Americans. Episodes of racial discrimination have the power to generate post traumatic experiences, like that of rape and domestic violence (Bryant-Davis and Ocampo, 2005). Concurrently, a growing body of literature suggests a negative relationship between idiosyncratic and macroeconomic traumas with financial risk taking (Ayton et al., 2020; Bucciol and Zarri, 2015; Engelmann et al., 2015; Malmendier and Nagel, 2011). Bucciol and Zarri (2015) suggest that experiencing traumatic events, such as a physical attack or the loss of a child, decreases one's willingness to take financial risks to the same degree as experiencing an economic crisis. Bazley et al. (2018) refer to discrimination as a "a traumatic social experience" and show that when underrepresented individuals believe they have been discriminated they tend to overestimate income risk and participate less in the stock market. This suggests that perceived discrimination may act as a mediating factor of financial risk taking.

We expect racially discriminatory practices to generate traumas that restrict overall upside investment and wealth potentials, by reducing the willingness of taking financial risk. Several propositions might explain the mechanisms underlying the negative relationship between perceived discrimination and financial risk taking. Bazley et al. (2018) suggest the exposure to discrimination amplifies risk perceptions that might result in lower financial risk taking. Individuals that sense discrimination potentially feel more uncertain and insecure, and will not want to put themselves in riskier situations. This proposition is supported by Cook (2014) who shows that the number of patents produced by African-Americans declined significantly during periods of aggravated violence and hate crimes in the US, periods that were otherwise characterized by booming markets. Cook (2014) attributes the countercyclical relationship of African-American patents – another risky endeavor – to the feelings of insecurity produced by the increased discrimination at the time.

Another plausible explanation for the negative relationship between discrimination and financial risk taking can be attributed to the complexity involved in forming expectations for financial variables. Belief formation on future market returns is characterized by large and persistent heterogeneity (Guerrero et al., 2021). Perceptions of discrimination might be a new information set that explains this heterogeneity and affects financial choices. When forecasting complex and uncertain financial and economic variables, such as income and inflation, an agent must also consider personal factors (Bazley et al., 2022). This can be particularly difficult for individuals that believe they have been discriminated, as they need to invoke past traumas. In such cases the assessment of future economic and financial variables such as stock returns, becomes much harder, generating a gap between objective and subjective probabilities. For example, Bazley et al. (2022) show that perceptions of discrimination drive upwards income and inflation expectations, especially among minority groups. The difficulty in forecasting is further exacerbate by "cognitive aging" which is manifested among individuals that experience frequent discrimination (Zahodne et al. 2020).

There are growing concerns that the latest pandemic will exacerbate racial wealth inequality and decrease social mobility. Minority groups are more sensitive to negative wealth fluctuations in the aftermath of financial unrests (Bhutta et al., 2020a). It is important to understand the drivers of financial risk taking among minority groups in order to better support wealth building of underrepresented communities.

3. Data and research hypotheses

3.1. Dataset

We use data from the US *Health and Retirement Study* (HRS), a biannual longitudinal survey on a representative national sample of American households aged 50 or more. The respondent of each household is the one who manages the finances of the family, also considered the head of the household. The survey provides comprehensive and detailed information on a wide array of domains such as demographics, health, housing, employment history and net worth, as well as on self-perceived discrimination. The latter is very important for our study since we are trying to understand the effect that one's belief of being discriminated has on portfolio choices.

HRS is characterized by a core part available and stable since its introduction in 1992 with further sections added over time. For the aim of this study, we focus our attention on the "Participant lifestyle" section from 2006-2018 that includes variables on racial discrimination, primarily used in our analysis. The "Participant Lifestyle" section is devoted every time to a rotating half of the sample, which means that half sample is interviewed in 2006 and later interviewed in 2010, 2014, and 2018 whereas the other half is interviewed in 2008, 2012, and 2016. In other words, each participant is requested for an interview every four years.

Our final dataset is comprised of 17,741 complete observations on household heads aged between 50 and 80. This age range is a life cycle point characterized by the accumulation of the household's wealth. Although the survey design is longitudinal, the panel dimension of our dataset is limited. Indeed, we have on average 1.64 observations per individual (from one to four), given that the sample answering the "Participant lifestyle" questionnaire rotates every two years. In what follows we then treat our dataset as if it were purely cross-sectional, and use standard errors clustered at the individual level to accommodate for the likely correlation between observations referring to the same individual.

3.2. Variables and summary statistics

We divide the variables used in this study into four categories: (i) *Investment decisions*, our dependent variables on portfolio composition; (ii) *Discrimination*, the self-assessed experience of discriminatory behavior; (iii) *Controls*, for demographics and health as further variables; and (iv) *Time* fixed effects. Table 1 reports summary statistics for

Table 1
Summary statistics.

Sample	Full				White	Non-White
Variable	Mean	Std. dev.	Min.	Max.	Mean	Mean
Investment decisions						
Risk free assets (d)	0.982	0.134	0	1	0.982	0.980
Low risk assets (d)	0.238	0.426	0	1	0.267	0.125
High risk assets (d)	0.282	0.450	0	1	0.319	0.140
Risk free share	0.733	0.379	0	1	0.701	0.861
Low risk share	0.097	0.233	0	1	0.107	0.055
High risk share	0.170	0.319	0	1	0.192	0.084
Discrimination						
Any discrimination (d)	0.784	0.412	0	1	0.769	0.841
Racial discrimination (d)	0.204	0.403	0	1	0.091	0.648
Other discrimination (d)	0.580	0.494	0	1	0.678	0.193
Frequency	0.966	0.744	0	5	0.951	1.024
Frequency × racial discr.	0.247	0.615	0	5	0.116	0.765
Frequency × other discr.	0.581	0.730	0	5	0.679	0.196
Controls						
Non-White (d)	0.203	0.402	0	1	0	1
US born (d)	0.920	0.272	0	1	0.943	0.828
Female (d)	0.584	0.493	0	1	0.574	0.622
Married (d)	0.646	0.478	0	1	0.676	0.528
With children (d)	0.918	0.275	0	1	0.916	0.924
Worker (d)	0.449	0.497	0	1	0.442	0.475
Good health (d)	0.416	0.493	0	1	0.440	0.318
Age	65.140	8.020	50	80	65.528	63.615
Household size -1	0.551	1.041	0	10	0.470	0.869
Years of education	13.476	2.597	0	17	13.584	13.052
Ln(wealth)	9.794	2.817	0.113	17.060	10.121	8.508
Ln(income)	11.250	1.455	0	17.336	11.343	10.884
CES-D	1.428	1.965	0	8	1.395	1.556
Time						
Wave 2008 (d)	0.152	0.359	0	1	0.157	0.133
Wave 2010 (d)	0.165	0.372	0	1	0.163	0.173
Wave 2012 (d)	0.143	0.350	0	1	0.140	0.155
Wave 2014 (d)	0.147	0.354	0	1	0.143	0.160
Wave 2016 (d)	0.106	0.308	0	1	0.102	0.121
Wave 2018 (d)	0.091	0.288	0	1	0.090	0.096

Note: (d) means that the variable is a dummy. The number of observations is: 17,741 (full sample); 14,143 (Whites); 3,598 (non-Whites).

all the variables involved.

The *Investment decisions* variables regard the most common forms of financial assets, that we group in risk free (checking and saving accounts), low risk (credit default swap, T-bills, bonds) and high risky assets (stocks). In the analysis we assess their ownership (yes / no) and share with respect to the total available financial wealth. We exclude from the definition of financial wealth Individual Retirement Accounts (IRAs), because this form of investment is sometimes driven by the law rather than voluntarily chosen. Table 1 shows that the ownership of risk free assets is almost universal (held by 98.2% of the sample) whereas the other asset categories are less popular (23.8% for bonds and 28.2% for stocks). This reflects into larger portfolio shares held in risk free assets (with an average share of 0.733).

The *Discrimination* category consists of six variables obtained from two underlying HRS questions. One asks to indicate if the person believes to have suffered from any of five discriminatory practices, i.e., the person i) was treated with less courtesy than other people; ii) received poor service at restaurants or stores; iii) was thought not to be smart; iv) was harassed; and v) others were afraid of them, with these events happening at different frequencies. From this question we create the average answer per respondent, measuring the frequency of being discriminated, following the work of Boen (2020). Another question asks to indicate, in case discrimination was perceived, which were the reason(s) among ancestry, gender, race, age, religion, weight, physical disability, physical appearance, and sexual orientation. Respondents were able to select all applicable reasons. From this question we generate the dummy variable *Any discrimination*, equal to 1 if the respondent reports any reason, the dummy *Racial discrimination*, equal to 1 if the answer includes "Your ancestry or national origin" or "Your race" and the dummy *Other discrimination*, equal to 1 if the answer includes any reason apart from ancestry and race. We also create the variables "frequency × racial discrimination" and "frequency × other discrimination" as the product between the frequency of being discriminated and "racial discrimination" and "other discrimination", respectively. More details on the construction of the five discrimination variables are in Appendix Section A.1.[1] From Table 1 we learn that about 78% of the respondents believe they experienced at least one form of discrimination, with about 20% explicitly referring to racial discrimination. The frequency is however small (0.97 in a scale from 0 to 5).

Finally, we control for standard socio-demographic and time effects by incorporating information on ethnicity, citizenship, age, gender, marital status, household composition, education, occupation, income, financial wealth, self-assessed health status, and year of data collection. We also include a depression symptoms measure (CES-D). The CES-D measure consists of an eight items scale to measure one's affective functioning. The score takes values from 0 to 8. For more details on the construction of the scale, we refer to Appendix Section A.1. We control for depressive disorder using the CES-D measure as it has been found to affect risk preference and behavior (Cobb-Clark, Dahmann, & Kettlewell, 2022). From Table 1 we learn that the average respondent is 65 years old, White, born in the US, female, married, has children, studied for 13 years, currently is not working, is not in good health conditions, has income and financial wealth of 77 and 18 thousand USD (i.e., exp (11.250) and exp(9.794), respectively), and has a CES-D depression score equal to 1.428 that is below the threshold of 3 that is usually taken as an indication of depressive disorder (Nelson, Kessler, & Mroczek, 2001). The sample is representative of the US population aged 50 or more. In particular for our analysis, the distribution by ethnicity is in line with official statistics.[2]

Table 1 also reports the average statistics separately for the subsamples of White and non-White individuals. The two groups differ in few key dimensions, with the non-White group being less heavily invested in low and high risk assets and more likely affected by racial discrimination. Non-White respondents are also generally poorer, less healthy and more depressed. Although the main reasons for being discriminated change, the two groups share similar frequency of overall discrimination.

3.3. Research hypotheses

Based on the existing literature, we test the following three hypotheses:

[1] Race is by far most frequently reported among non-White individuals (it is the reason chosen by 59% of the discriminated non-Whites), followed by age (42%). Race is instead negligible among Whites (7%), where the most common reason is age (55%). Other reasons for being discriminated are similarly frequent among Whites and non-Whites.

[2] The US Census reports 28% Non-Whites Americans in the overall population in year 2010; see https://www.census.gov/newsroom/releases/archives/2010_census/cb11-cn125.html. The share is smaller in our elder sample because Whites generally have higher life expectancy; see https://www.nih.gov/news-events/news-releases/life-expectancy-us-increased-between-2000-2019-widespread-gaps-among-racial-ethnic-groups-exist.

H1: Self-perceived discrimination is associated to less frequent ownership of financial products and lower portfolio risk exposure.

Bazley et al. (2018) refer to discrimination as a "a traumatic social experience", and several studies have shown that personal traumas limit financial risk taking (for example see Bucciol and Zarri, 2015).

H2: Self-perceived racial discrimination correlates with financial risk taking more than any other form of discrimination.

Bryant-Davis and Ocampo (2005) suggest that racial discrimination is considered to cause traumatic experiences similar to that of rape and domestic violence. Bazley et al. (2022) show that the impact of discrimination in distorting household expectations about economic variables is mostly concentrated to race/ethnic minorities. Therefore, we expect that racial discrimination has a more detrimental influence on financial risk taking than any other form of discrimination.

H3: The frequency of self-perceived discrimination, and especially that of racial discrimination, is linked to portfolio decisions.

Zahodne et al. (2020) show that frequent perceived discrimination is associated with "cognitive aging". Thus, the more frequent the perceived discrimination, the more frequent the produced trauma, affecting portfolio choices by a bigger amount.

4. Results

In our analysis we look at both the extensive (holdings) and intensive (shares) margins of investment decisions in risk free, low risk and high risk assets. We employ probit regressions for the extensive margin and OLS regressions for the intensive margin. In both cases standard errors are clustered at the individual level. All the models, shown in Tables 2-4, include the control and time variables listed in Table 1. Appendix Table A.1 reports the correlation matrix of the variables used in the specification. In the main text we focus on our key variables of interest; full outputs are available in Appendix Tables A.2-A.4. In what follows we take the convention to comment only on coefficients that are significant at least at the 5% level.

Table 2 shows average marginal effects from our baseline regression, where the specification includes a dummy variable equal to one if the individual believes having been victim of any type of discrimination. We notice that the pseudo R-squared statistic of the probit model (Panel A) is much lower in Column (1) for risk free assets than in the other Columns (2)-(3). The reason is that – not surprisingly – most households in the sample (98.2%) hold risk free assets. The dummy dependent variable for the extensive margin is then close to being a constant. This makes it difficult for the model to explain risk free holdings as a function of the heterogeneity in the explanatory variables from the table. We find no significant coefficient on discrimination, thus finding no support for our Hypothesis H1; there seems to be no connection between portfolio decisions and the perceived discrimination practice.

Table 3 replaces the dummy for any discrimination with the two dummies for racial and any other reason for discrimination. Panel (a) on the extensive margin shows that the probability of holding high risk assets is 2.1 percentage points lower in the presence of racial discrimination. Interestingly, we observe no significant effect on risk free and low risk assets. Panel (b) shows the analysis on the intensive margin. We find a similar result, with the share of high risk assets falling by 1.9 percentage points when there is perceived racial discrimination. In neither Panel (a) nor Panel (b) do we find significant effects on risk free / low risk assets or for the "other discrimination" variable. Chi-squared and F tests show that statistical significance of the discrimination coefficients is found only for high risk assets, where the overall effect of racial discrimination on risky assets is also significantly lower than that of other discrimination. We thus find support to our Hypothesis H2, but only when looking at high risk assets. Perceived racial discrimination seems to have consequences on portfolio decisions regarding high risk assets only.[3] This evidence indicates a more conservative composition of

Table 2
Baseline regression.

a) Extensive margin			
	(1)	**(2)**	**(3)**
Dependent variable	Risk free	Low risk	High risk
Any discrimination	0.001	0.006	0.002
	(0.002)	(0.007)	(0.007)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
Pseudo R-squared	0.028	0.262	0.364
Observations	17,741	17,741	17,741
b) Intensive margin			
	(1)	(2)	(3)
Dependent variable	Risk free	Low risk	High risk
Any discrimination	0.004	0.000	-0.004
	(0.006)	(0.004)	(0.005)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
R-squared	0.379	0.115	0.264
Adjusted R-squared	0.378	0.114	0.263
Observations	17,741	17,741	17,741

Note: Panel a): Average marginal effects from probit regressions; Panel b): OLS regressions; Standard errors clustered at the individual level in parentheses; *** p<0.01, ** p<0.05, * p<0.10.

Table 3
Regression including discrimination reason.

(a) Extensive margin			
	(1)	(2)	(3)
Dependent variable	Risk free	Low risk	High risk
Racial discrimination	-0.002	0.010	-0.021**
	(0.003)	(0.010)	(0.010)
Other discrimination	0.002	0.005	0.006
	(0.003)	(0.007)	(0.007)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
Chi-squared tests (*p*-values)			
no discrimination	0.511	0.582	0.019
racial =other discrimination	0.277	0.567	0.005
Pseudo R-squared	0.029	0.262	0.364
Observations	17,741	17,741	17,741
(b) Intensive margin			
	(1)	(2)	(3)
Dependent variable	Risk free	Low risk	High risk
Racial discrimination	0.012	0.007	-0.019***
	(0.008)	(0.006)	(0.007)
Other discrimination	0.001	-0.002	0.001
	(0.006)	(0.004)	(0.006)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
F tests (*p*-values)			
no discrimination	0.265	0.228	0.005
racial =other discrimination	0.140	0.086	0.002
R-squared	0.379	0.115	0.264
Adjusted R-squared	0.378	0.114	0.263
Observations	17,741	17,741	17,741

Note: Panel a): Average marginal effects from probit regressions; Panel b): OLS regressions; Standard errors clustered at the individual level in parentheses; *** p<0.01, ** p<0.05, * p<0.10.

[3] A possible concern is that our results are driven by the relatively high correlation between the variables on racial discrimination and being Non-White (See Table 1 and Appendix Table A.1). Our results, however, hold if we remove from the specification the dummy for being Non-White. Results are available upon request.

portfolios for racially discriminated individuals; it may be the consequence of avoiding uncertainty and becoming more risk averse, and this way prefer simpler products to more sophisticated ones, in turn affecting returns and wealth.

Table 4 adds to the specification of Table 3 information about the frequency of discrimination. First of all, we confirm our previous results indicating that perceived racial discrimination has consequences mainly on holdings and shares of high risk assets. Frequency generally does not seem to matter, except for one case in the intensive margin. Here we find a significantly positive coefficient for the frequency of racial discrimination on the share of high risk assets. Specifically, one more point in the frequency scale is associated with a 2.0 percentage points increase in the high risk share. In other words, the negative effect of racial discrimination is mitigated as the perceived frequency of discrimination increases. A possible explanation for this finding is that more frequent episodes may be of less severe intensity. Here we find evidence of a significant effect of the frequency according to Chi-squared and F tests. Moreover, in these regressions we also find a positive role of racial discrimination in determining the risk free share (3.0 percentage points). This suggests that, after isolating the role of the frequency of discrimination (which is jointly significant for the risk free share according to an F-test), we find room for the perception of being discriminated by race. It should be noted, however, that adding the three frequency variables to the specification does not seem to improve the general fit of the model: The pseudo R-squared and R-squared statistics show a small increase compared to those in Table 3 – even in those columns where frequency happens to be significant. Overall, findings show mixed evidence with regards to our Hypothesis H3; the perceived intensity of discrimination seems to matter, but mainly on the portfolio shares and mostly when racial reasons of discrimination are involved.

Table 4
Regression including frequency of discrimination.

(a) Extensive margin			
	(1)	(2)	(3)
Dependent variable	Risk free	Low risk	High risk
Racial discrimination	-0.007	0.022	-0.040**
	(0.005)	(0.015)	(0.016)
Other discrimination	0.004	0.007	0.011
	(0.004)	(0.011)	(0.010)
Frequency	-0.002	0.010	0.009
	(0.003)	(0.010)	(0.010)
Frequency × racial discr.	0.006	-0.014	0.012
	(0.005)	(0.013)	(0.013)
Frequency × other discr.	-0.002	-0.005	-0.008
	(0.004)	(0.011)	(0.011)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
Chi squared tests (*p*-values)			
no discrimination	0.281	0.787	0.020
no frequency	0.166	0.597	0.143
no racial discrimination	0.540	0.493	0.024
no other discrimination	0.287	0.572	0.613
racial =other discrimination	0.078	0.583	0.003
Pseudo R-squared	0.030	0.262	0.365
Observations	17,741	17,741	17,741
b) Intensive margin			
	(1)	(2)	(3)
Dependent variable	Risk free	Low risk	High risk
Racial discrimination	0.030**	0.012	-0.042***
	(0.012)	(0.008)	(0.010)
Other discrimination	-0.001	-0.001	0.002
	(0.009)	(0.006)	(0.008)
Frequency	-0.005	0.008	-0.003
	(0.008)	(0.006)	(0.007)
Frequency × racial discr.	-0.012	-0.008	0.020**
	(0.010)	(0.007)	(0.008)
Frequency × other discr.	0.004	-0.004	-0.000
	(0.009)	(0.006)	(0.008)
Controls	YES	YES	YES
Time fixed effects	YES	YES	YES
F tests (*p*-values)			
no discrimination	0.060	0.275	0.001
no frequency	0.044	0.321	0.008
no racial discrimination	0.016	0.301	0.000
no other discrimination	0.915	0.303	0.877
racial =other discrimination	0.027	0.219	0.000
R-squared	0.379	0.115	0.265
Adjusted R-squared	0.379	0.114	0.264
Observations	17,741	17,741	17,741

Note: Panel a): Average marginal effects from probit regressions; Panel b): OLS regressions; Standard errors clustered at the individual level in parentheses; *** p<0.01, ** p<0.05, * p<0.10.

At the end of our analysis, we see that feeling discrimination matters for portfolio decisions. In particular, racial discrimination captures significant differences in high risk asset holdings and shares. On the analysis in Table 4 we ran several robustness checks, whose output is reported in Appendix Tables A.5-A.8. The checks generally confirm our main conclusions. First, in Appendix Table A.5 we repeated our benchmark analysis using random-effect panel rather than cross-sectional models. Second, in Appendix Table A.6 we used for "racial discrimination" a definition based on reporting "race" as reason of discrimination – and not also ancestry. In the two tables we found an additional significant coefficient on the interaction between frequency and racial discrimination on low risk holdings. Chi-squared tests on the joint significance of the frequency coefficients, however, did not support this evidence. Third, in Appendix Table A.7 we ran the analysis on the subsample of non-White individuals. Finally, in Appendix Table A.8 we replicated the benchmark analysis on the intensive margin in the subsample of asset holders, no longer finding a significant coefficient on racial discrimination. This may suggest that racial discrimination is more relevant in determining the holding than the share.

5. Conclusions

In this study we examine the effect of self-assessed racial discrimination on sub-optimal portfolio choices. We take on the proposition of Small and Pager (2020) that advise economists to move beyond the focus of taste and statistical discrimination, and rather study the consequences of daily and self-perceived discrimination from a sociological perspective. We generated an index of self-reported answers (self--perceptions) on whether individuals are treated with less courtesy than other people, receive poor service at restaurants or stores, are not considered smart, are harassed, think others are afraid of them, and if they explicitly believe to be discriminated against, due to race or a set of other reasons such as gender and age. We study the connection of all former parameters with financial risk taking, and we explore whether the connection is larger among non-White individuals.

We contribute to the literature by showing that perceptions of racial discrimination shape portfolio choices more than any other type of discrimination. The feeling of being racially discriminated is associated to a reduction of high risk asset holdings by 4.0%, and the amount of these holdings by 4.2%. Given the positive relationship between risk and return, changes in portfolio composition may have bearings on rates of return and, eventually contribute to decreasing wealth gaps, in a permanent manner (Shapiro, 2004). We suggest that understanding the relationship between self-perceived racial discrimination and financial risk taking might help combat the racial wealth inequalities that are growing over time.

Eliminating racial discrimination in all its forms should be prioritized in policymaking. The promotion of anti-discrimination laws, equity and inclusion in its broader form will increase calculated financial risk taking among minority groups. The economics and finance profession suffers from misrepresentation of historically underrepresented groups. According to the American Economic Association survey of 2020, only 3% of the people in the economics profession identify themselves as Black, and 10% as Hispanic. However, (Brown, Bucciol, Montagnoli, & Taylor, 2021). found that financial advice, even when it is free, increases the probability that the advisee will invest in stocks. We expect that,

when financial advice comes from someone you identify with, will be more likely to be applied. Thus, equal representation will help minority groups grow trust in financial institutions, invest to more complex and return-rewarding assets, and engage with financial professionals.

Asset redistribution as a form of reparations will internalize the costs of racial discrimination and have fast implications on reducing the racial wealth inequality gap, with longer time effects on its total elimination (Darity and Mullen, 2020; (Hamilton and Darity, 2010). The target group should be the younger generations whose marginal utility is greater in reaping these benefits. Student debt cancellations would help social mobility of minority students, given minority students are the ones who borrow the most (Eaton et al., 2021). Other forms of reparation can be through the provision of professionally managed, and well diversified mutual funds to children that belong to minority groups and will have access to wealth when they reach the time to make important financial decisions. The monetary benefits of closing the wealth gap will be the addition of about USD 1-1.5 trillion to the US economy between 2019 and 2028 (Noel, Pinder, Stewart, & Wright, 2019).

We conclude by mentioning the study's main limitations, that we plan to discuss further in future research. First, our contribution is to look at perceived discrimination. We believe what matters is what the individual perceives and not what actually happens. However, it is possible that the actual discrimination is quite different from the perceived one. Exploring the connection between perceived and actual discrimination and their separate role on portfolio decisions is an empirical exercise that may provide interesting policy implications. Further limitations regard the nature of the data. Although HRS is a panel dataset, we are not able to make full use of its panel dimension since the variables we are employing have been measured only every four years. The lack of a real panel dimension prevents us from adopting techniques that control for time-invariant omitted variables. Although we have no guarantee that our findings hold for the general population, we tried to make our results valid beyond our sample by i) considering a large set of socio-demographic explanatory variables and ii) using standard errors clustered at the individual level, to capture the correlation in observations coming from the same source. A further limitation is the age range of the sample. Our sample participants are between 50 to 80 years old. Life cycle investment models encourage reallocation to safer assets as one approaches retirement (Fagereng et al., 2017), which can have confounding effects on our dependent variables. However, we used these data since HRS includes a combination of financial variables along with self-perceptions on discrimination, which is unique across the existing financial databases. Future work might entail the development of an experiment with repeated tasks on a younger sample, allowing us to isolate the effect of certain behaviors on financial risk taking.

Data availability

Data will be made available on request.

Supplementary materials

Supplementary material associated with this article can be found, in the online version, at doi:10.1016/j.socec.2023.102062.

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