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Economic Freedom, Secular Ideologies, and the Prevalence of Women's Opportunity and Necessity Entrepreneurship

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Abstract

We explore the relationship between economic freedom and opportunity and necessity entrepreneurship with data from 98 countries between 2006 and 2018 using fixed-effects panel regression. Specifically, we examine how economic freedom (i.e., the consistency of policies across various countries towards voluntary exchange and secularism) and

U H O L J L R X V L G H R O R J L H V O R V H W K H H Q F R P S D V V L Q J D Q G L P
participation in opportunity and necessity entrepreneurship across countries. After controlling for
multiple macro-level factors, Z H I L Q G D V L J Q L I L F D Q W S R V L W L Y H H I I H F W R
opportunity entrepreneurship cross-culturally. We also find evidence that the influence of economic
I U H H G R P R Q Z R P H Q · V R S S R U W X Q L W \ H Q W U H S U H Q H X U V K L S L
Results do not show significant evidence that the economic freedom or secularism affects necessity

term secularization to refer to a decline in church attendance, or development of a secular society or religious transformations or a reduction in individual piety (Halman & Draulans, 2006). We focus on secular ideologies, that is, the idea that ethics are founded on rationality, logic, or ethical intuition rather than on purported divine revelation or guidance from organized religion (Inglehart & Welzel 2005; Mahmood 2009), because it is strongly linked to opportunity and necessity entrepreneurship (Hechavarria and Reynolds, 2009). In essence, when individuals are not primarily focused on physical safety and material security, their values tend to center around materialistic ambitions (Hechavarría 2016). The prevalence of secular ideologies in certain regions led to significant advancements in science and technology, which are commonly linked to high levels of wealth and economic development (Hechavarría 2016). Moreover, as secular ideologies become more widespread in societies, shared beliefs among members of those societies tend to place greater emphasis on individualism and autonomy (Inglehart & Oyserman 2004), two essential factors at the heart of entrepreneurial activity (Lumpkin et al. 2009; Rauch et al. 2009). Hence, the benefits of economic freedom on entrepreneurship for women might depend on cultural ideologies of secularism:

)UDPLQJ TXHVWLRQ +RZ GR VHFXODU LGHRORJLHV LP

Methods

We construct our sample by matching data from the following country-OHYHO VRXUFHV * Adult Population Survey $36),·V (FRQRPLF)UHHGRP ,QGH[(), WKH DQG :% 2XU PDLQ GDWD VRXUFH LV WKH *(0-age population ZKLJKWHG before aggregation to the country level (see Reynolds et al. 2005). Our sample is restricted by limitations in the periods for which the data were collected as well as missing data for some countries. We consider the inclusion of a larger sample of developing countries an important trade-off, and still achieve a sample large enough for the empirical analysis. We match country-level data with additional country level indicators from EFI, WVS, and WB. The GEM data from 2006-2018 covers 110 countries and comprises 729 observations. Our final sample consists of 628 and 91 countries. Table 1 lists all countries and the number of years in our analysis.

Measures

Dependent variables

Entrepreneurial activity motivations are measured by two dependent variables: percent of female opportunity-driven total nascent and early-stage entrepreneurship and percent of female necessity-driven total nascent and early-stage entrepreneurship at the country level. Opportunity entrepreneurship tends to involve job creation and innovative attempts to exploit new market niches, while necessity entrepreneurship is more consistent with imitative ventures, guided by rent-seeking. This operationalization is based on over one million GEM interviews from the overall GEM APS, which partitions activity for respondents (1) who claim to be driven by opportunity as opposed to finding no other option for work, and (2) indicate that the main driver for involvement in this opportunity is (a) independence or increasing their income, rather than simply maintaining their income (Singer et al., 2014, p. 24); or (b) who FODLP WR EH GULYHQ E\ QHFHVVLW\ KDYLQJ QR EHWWHU

Independent variables

To capture regulatory institutional changes in the macroeconomic environment for economic IUHHGRP ZH XVH WKH)UDVHU ,QVWLWXWH (DeRooy-Walters Index) that measures the degree of economic freedom present in five major areas: (1) size of government, (2) legal system and property rights, (3) sound money, (4) freedom to trade internationally, and (5) regulation of credit, labor, and

Results

Table 2 provides descriptive statistics, and Table 3 contains Pearson correlations. We perform a VIF analysis on the variables included in the regressions. The highest VIF of 2.03 indicates multicollinearity is not a concern. Figure 1-6 highlights variation in economic freedom and secularism across the years in our sample, illustrating heterogeneity across years among countries.

Table 4 presents our primary fixed-effects model estimates for our variables of interest on the Percent of Female Total Nascent-stage Entrepreneurship Opportunity-driven Entrepreneurship. Model 1 includes controls, and indicates that the % Female Unemployment Rate ($\beta = -0.0924$, $p = 0.095$) negatively affects the dependent variable, while % Sees Opportunity ($\beta = 0.0487$, $p = 0.001$), and % Start-up Skills ($\beta = 0.0559$, $p = 0.026$) positively affect the dependent variable. Model 2 of Table 2 includes [illegible] and shows a significant positive relationship for International Trade Freedom ($\beta = 0.599$, $p = 0.038$), and a significant positive relationship for [illegible] ($\beta = 10.07$, $p = 0.063$) on the dependent variable. For interaction effects, there is a significant positive relationship for Legal System and Property Rights and Secularism (Model 4: $\beta = 8.407$, $p = 0.001$) (Figure 2), Sound Money and Secularism ($\beta = 5.688$, $p = 0.001$) (Figure 3), International Trade Freedom and Secularism ($\beta = 4.655$, $p = 0.074$) (Figure 4), and Regulation and p

Sunny, 2021; Dencker, Bacq, Gruber, & Haas, 2019) argues that the necessity of entrepreneurship is linked to to-basic needs (i.e., physiological and safety) and the opportunity to higher-level needs (belonging, esteem, and self-actualization) (Maslow, 1954). When secular ideologies dominate, women entrepreneurs will perceive their efforts as opportunities to self-actualize because such behavior is legitimated. Under such circumstances, economic freedom intensifies such opportunities to venture by reduces market uncertainty.

2XU UHVHDUFK FRQWULEXWHV WR ZRPHQ·V HQWUHSUHQ DQVZHU FDOOV WR EHWWHUV XQGHUVWDQG WKH YDULDWLR 2013; Marlow 2020) instead of comparing women to men in terms of entrepreneurial activity. Second, RXU VWXG\ VKHGV OLJKW RQ KRZ VRFLHWLHV VKDSH WKH D through their institutional arrangements, particularly in regard to policy (Estrin & Michiewicz 2011; Dencker, Bacq, Gruber, & Haas 2021). We find strong empirical evidence that secularism is cross- FXOWXUDOO\ OLQNHG WR ZRPHQ·V RSSRUWXQLW\ HQWUHSU pronounced among efficiency and innovation economies. Furthermore, we find strong empirical HYLGHQFH WKDW WKH HIIHFWV RI HFRQRPLF IUHHGRP IRU Z be dependent on secularism. That is, according to the external enabler framework, the sociocultural enabler of secularism shapes the relationship between macroeconomic enablers of economic freedom (i.e., legal systems and property rights, sound money and regulation). International Trade Freedom is the

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Table 1. Study Variables

Variable	Data Source	Measurement
GDP (Current)/100K	World Bank	The sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products.
% GDP Growth	World Bank	The percent change in real GDP, which corrects the nominal GDP figure for inflation. Real GDP is therefore also referred to as inflation-adjusted GDP or GDP in constant prices.
Female Population/100K	World Bank	Female population is the percentage of the population that is female.
% Female Unemployment	World Bank	Female unemployment is the percentage of the female population active in the labor force that is unemployed.
% Female Labor Force	World Bank	Female labor forces is the percentage of the female population active in the labor force.
% Equal Living Standard	GEM APS	3 H U F H Q W D J H R I W K H R I F R X Q W U \ · V

Table 2. Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
GDP (Current)/100K	628	10223898	24320042	16670	2.061e+08
% GDP Growth	628	2.83	3.507	-14.3	25.176
Female Population/100K	628	418.167	1151.167	1.471	6828.548
% Female Unemployment	628	9.158	6.593	.239	35.844
% Female Labor Force	628	50.463	12.258	12.929	83.783
% Equal Living Standard	628	63.28	12.054	23.207	92.038
% Starting Business Good	628	64.982	13.389	22.808	96.156
% High Status to Success	628				

Table 4. Fixed-effects linear regression model for female opportunity entrepreneurship

Variables	(1) Model 1	(2) Model 2	(3) Model 3	(4) Model 4	(5) Model 5	(6) Model 6	(7) Model 7
GDP (Current)/100K	-2.08e-09	-1.08e-08	-1.35e-08	-1.28e-08	-1.40e		

Robust standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

Figure 1. External Enabler Framework and Study Findings

External Enablers

Figure 2. Legal System + Property Rights and Secularism Interaction

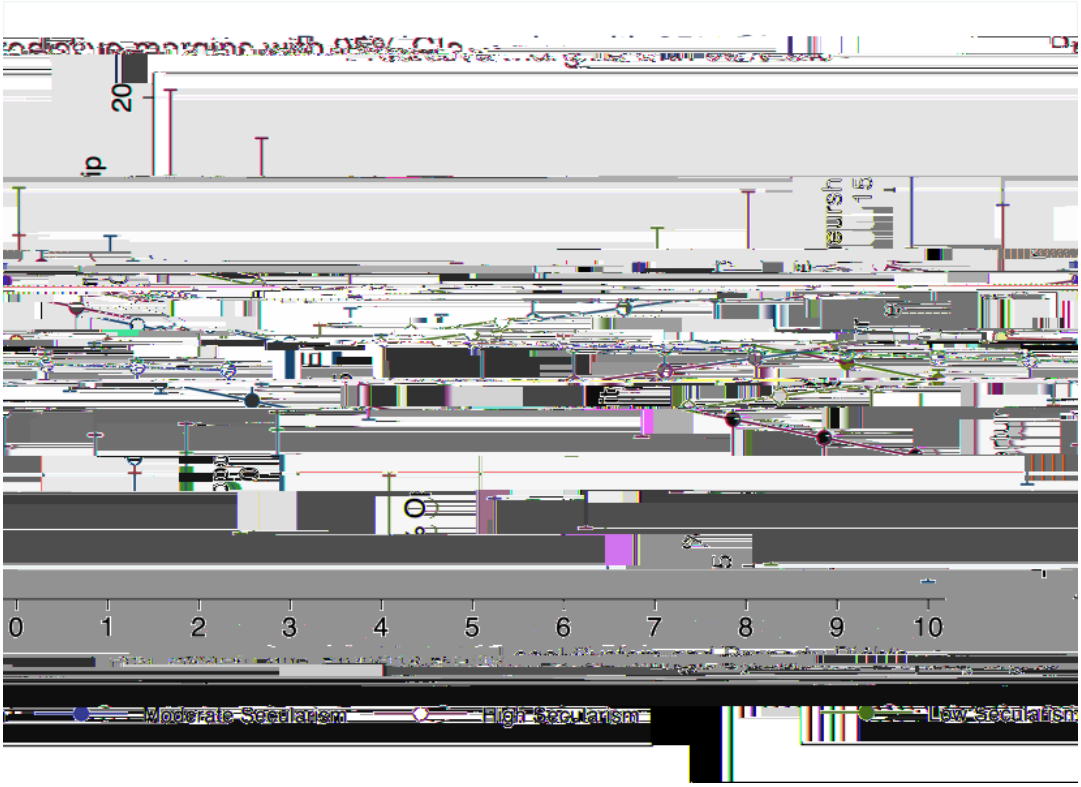

Figure 3. Sound Money and Secularism Interaction

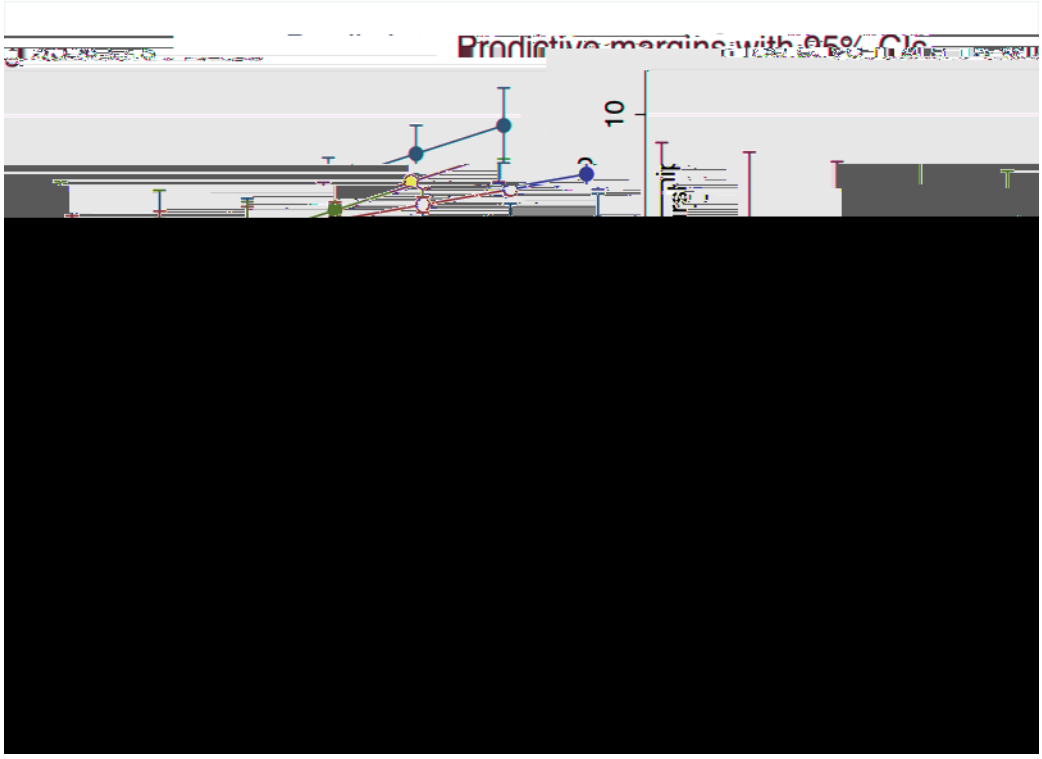

Figure 4. International Trade Freedom and Secularism Interaction

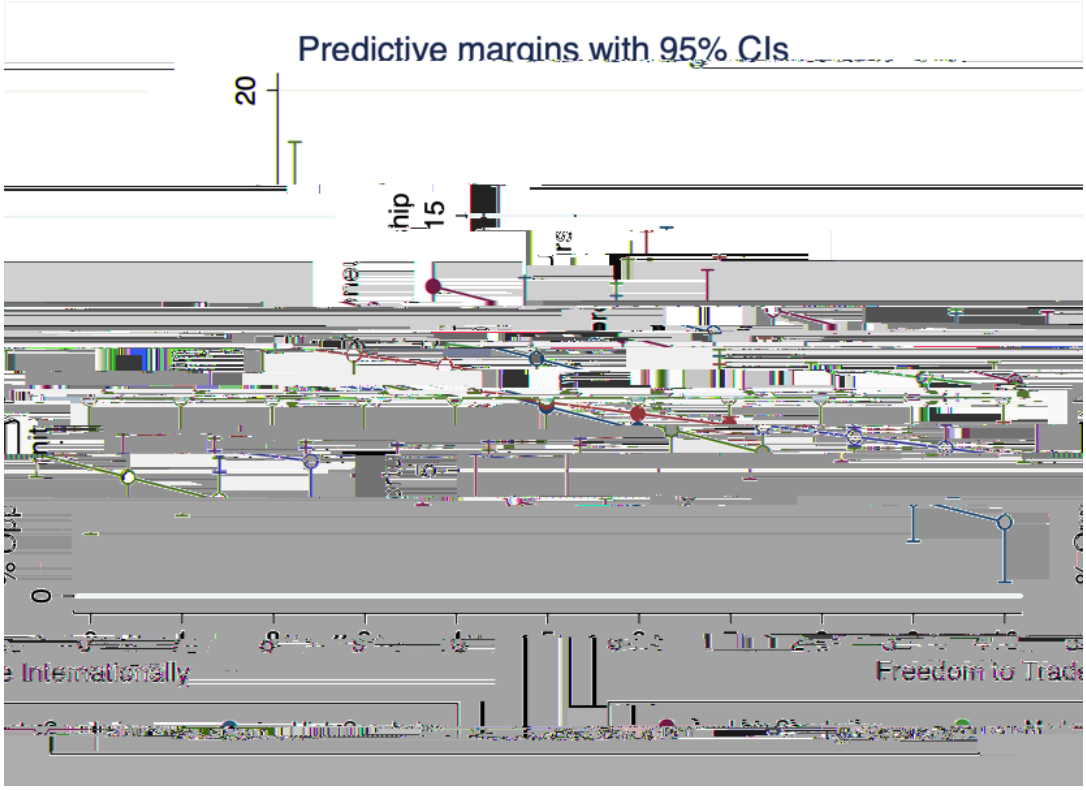
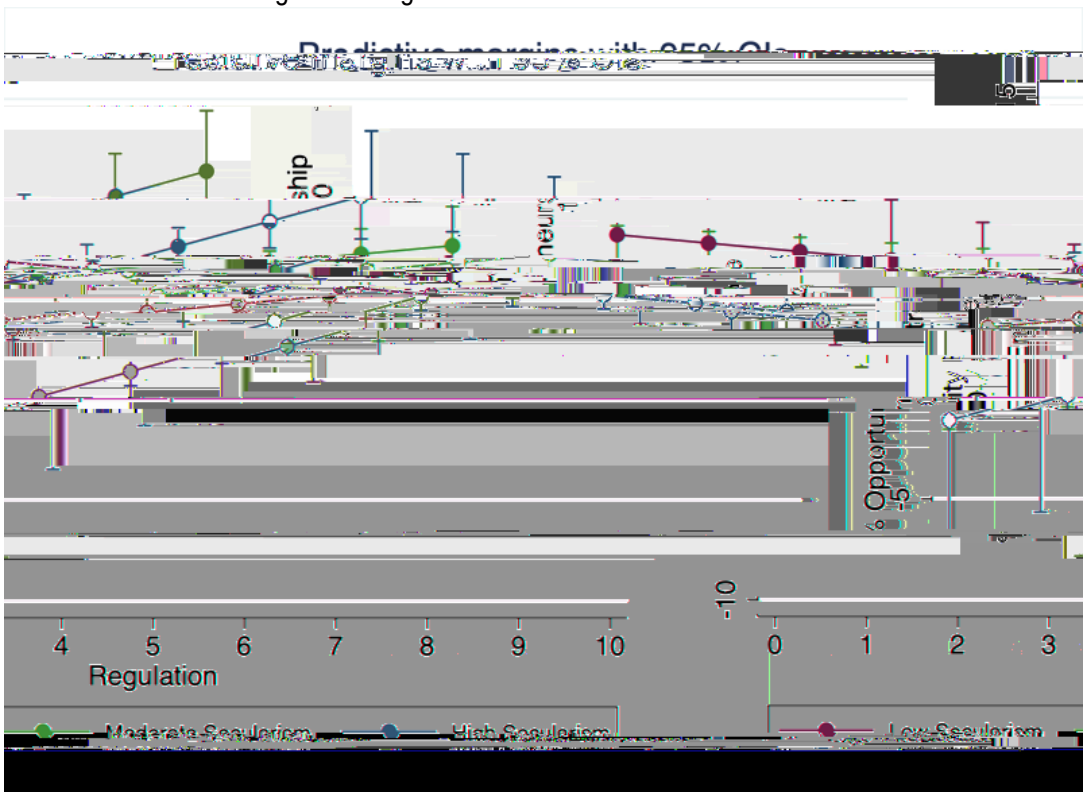
Figure 5. Regulation and Secularism Interaction