ASSESING THE SOCIO-ECONOMIC INEQUALITY IN LATIN AMERICA

SUMMARY

This study examines the influence of values in social classes' progress based in Latin American citizens' responses derived the latest World Value Survey, Wave 6 (2010-2014). Five types of values were considered as drivers for more socio-economic equality. These values were used to form describing indexes representing predictor variables namely technology adoption, trust in others, market competition, gender equality, and upward mobility which served as economic drivers after the integration of the country GDP and Gini coefficient. The analysis is based on a dataset, derived from 10,440 individual responses representing eight Latin American countries. Multiple linear regression estimates were used to examine the effect of the economic drivers in the middle class. The findings have relevant implications for public and private strategic decisions makers concerned about slow economic growth and rising social classes' equality leverage. It persuades those with the power to reduce inequality levels through policies and practices with emphasis on gender equality and trust in others as engines of social and economic changes in Latin America.

Keywords: Gini coefficient, Latin American values, socio-economic equality drivers

INTRODUCTION

Values and its relation to economic growth is a highly important research domain (Amoronto, Chun & Deolalikar, 2010). There is an implicit idea that the middle class holds a set of values and orientations that tell it from both its poorer and wealthier setoff. A perspective that dates to Swedberg (2009) suggests that the middle class is the source of economic values that emphasize savings and accumulation of human capital promoting economic growth. Given that the wellbeing of the middle class depends on specialized skills, this pattern is proclaimed to value long-term investments, in sharp contrast with the upper-class level, whose welfare relies upon, it is claimed, on capital and rental income (López-Calva, Rigolini & Torche, 2012).

Inequality trends remain a key concern worldwide, but especially in Latin America. To date, how the values determine the economic growth and levels of equality are a matter of continuous research particularly in regions where there is a tendency to this lack of advancements. Hence, the purpose of this paper is to empirically analyze the values influencing the economic development and growth with a focus on Latin American middle classes. Moreover, the study turns these values to economic drivers promoting growth by reducing the levels of inequalities through perceived social rankings and individuals' aspirations. To accomplish this objective, the study is based on individuals perceptions as measurements derived from national responses to the World Value Survey (hereafter WVS), Wave 6 (refer to Appendix A for WVS measurements). As for the economic analysis, the gross domestic product per capita for each country (hereafter GDP) and the Gini coefficient for each country were combined as part of a thorough statistical methodology. Conclusions and final remarks are discussed, which suggest the need for tailored policies and practices to address the differences between the individual countries as well as for the region.

THEORETICAL FRAMEWORK

How inequality levels are generated over time has been subjecting research for the longest time. The relation of inequality trends to economic development and income distributions have been at the top of the agenda in many countries and forums. For example, the Organization for Economic Cooperation and Development (OECD, 2015) addresses inequality issues expressly in two of its seventeen objectives of the Sustainable Development Goals. Another four of these goals focus the impact of technology, gender equality, education and job opportunities in transforming the world. These efforts and ongoing attention are addressed to reduce income disparities and find solutions with the target to improve all people's lives.

Common research practices tend to explore the ways individuals' values relate to their attitudes, behavior, and social experiences (Ros, 1999). The relevance of the subjective components, research on values and its connection to the labor market, investment, and economic growth is highly important (Amoranto et al., 2010) as they provide information towards economic growth. As such, this study comprehends the effect of individuals' perceptions in social classes' progress as contribution criteria for public and private policymakers' future decisions.

Technology Adoption

Technology is an essential driver in sharing economy (Demary, 2015) due to its positive impact on countries progress, economic development, and upward mobility (Ferreira, Messina, Rigolini, López-Calva, Lugo & Vakis, 2013). The Global Competitiveness Report (2016-2017) refers to the technology as a factor that contributes to increase efficiency and to enable innovation by enhancing productivity levels through the way the communication is

leveraged. In this respect, adoption stands for the individual desire or willingness to use something. Hence, greater levels of income inequality negatively affect the adoption of advanced technologies and investment opportunities due to the wealth level position (Cingano, 2014) limiting individual and countries further development.

Trust in others

Trust is crucial for economic and social development (Szabo, Ferencz & Puchihar, 2013). As such, researchers suggest that high levels of trust are associated with a greater willingness for cooperation (La Porta, López-De-Silanes, Shleifer & Vishny, 1997). Trust is related to attitudes reaching economic results. For example, Alesina & La Ferrara (2000) stated the economic benefits of trust as it relates to the better functioning of large organizations implying that more trust levels will pursue economic success through the moral, cultural attitude, and individual characteristics. Therefore, variations of trust levels suggest that middle classes perspectives also differ in cross-country levels (Ferreira et al., 2013).

Delhey & Welzel (2012) confirmed in their research the trust relation to economic growth. The study established the link between the in-group-trust to outsiders. While the former relates to the relatives and friends the latter has to do with people not known or have different group characteristics (e.g., nationality and religion). The analysis encountered important socioeconomic findings related to trust: (1) the influence of trust in others in human empowerment increased the GDP when individual experienced higher levels of trust, and (2) the diminishing of external constraints make people free and open to cooperation with outside groups.

Market competition

It is clear that competition drives the economy in many respects. It promotes efficiency, social welfare, and technology improvements (Barrios, 2015). The Global Competitiveness Report (2016-2017) emphasizes the importance of cultural and historical reasons for countries to do better. Therefore, it is plausible that customers may be more demanding of competition within the market in some countries than in others. This environmental dynamic requires flexibility, quick adaptability, and better resources management. Such behaviors can create an important competitive advantage forcing established organizations in a country to be more innovative and customer-oriented while maintaining the necessary discipline to achieve efficiency levels in the market.

The use of subjective responses as the ones derived from the WVS is fundamental for mainstream economists as they represent what ordinary people generally understand by market competition. The effect of this economic driver may suggest the need to find better avenues for educational opportunities and resources allocation that strength the country's position in this respect.

Gender Equality

Advocacy within gender equality and countries development is crucial as it relates to positive externalities towards fundamental human rights. The differences between men and women are socially learned and, therefore, subject to change over time. In general, the exclusion of people due to gender reasons has an adverse effect in every context. Although gender inequality patterns are more identifiable in labor market activities, fewer studies confirm its relation to economic growth. Thus, the inclusion of prospects is needed to enhance fundamental human values addressing better countries development.

Gender equality influence to labor market has been established by global economy competitiveness (Ostoj, 2015). As such, labor market efficiency considers female participation percentage as a ranking global competitiveness criterion. In a more in-depth definition, the Global Competitiveness Report (2016-2017) describes labor markets as ones that must have flexibility, allow wage fluctuation without much social disruption, and by providing equity in the business environment between women and men. Hiring individuals with the needed managerial skills (regardless the gender) improve the firm position in the market (Heyman, Norback & Persson, 2017) promoting business competition and increasing the opportunities to enhance citizen's quality life. Still, equal opportunities are relevant to other areas such as educational advancements, routine social interactions, and human development. Hence, this study contributes to previous gender equality research by empirically analyzing the subjective responses related to these different contexts.

Upward mobility

Ferreira et al., (2013) justified mobility upward as a result of technological and economic changes occurring in populations over time. Economists refer to mobility as the initial income period and the advancement of another income vector in the second period. Azevedo & Bouillón (2009) defined social mobility as the way individuals move upwards or downwards from one status position to another social hierarchy. Upward mobility could result in negative returns measured regarding income distribution, employment opportunities and other

upgrading opportunities (Azevedo et al., 2009). In fact, previous studies establish a negative relation to inequality levels when it is measured by Gini coefficients (Cingano, 2014).

The common expectations are to lower inequality levels, but specifically in Latin America by finding ways to promote greater savings and make internal markets attractive to generate jobs for faster economic growth (Torche & López-Calva, 2011). In this respect, while Azevedo et al. (2009) recognize the importance of income distributions as a measure for better life opportunities, Torche et al. (2011) indicate that the larger the middle class, the more robust the internal markets is expected to be.

DATA AND METHODOLOGY

The empirical study comprehends a qualitative and quantitative phase. The qualitative aspect is drawn from an extensive literature review from peer-reviewed journals and competitiveness reports. The quantitative phase is derived from the WVS. The WVS is a global network of social scientists studying changing values and their impact on social life (<u>www.worldvaluessurvey.org</u>). It seeks to understand beliefs, values, and motivations of people around the world. Several multi-disciplinary researchers have used these data to analyze social capital issues as well as economic development including gender equality. The WVS started in 1981 and represented 100 countries containing about 90% of the world's population through a standard questionnaire.

Due to its relevance, thorough execution, and widely usage for research, this analysis is based on the latest WVS (2010-2014). This research comprehends five types of values covered by this instrumentation. These values were used to form describing indexes representing predictor variables namely technology adoption, trust in others, market competition, gender equality, and upward mobility, which served as economic drivers after the integration of the country GDP (in US dollars) and Gini index obtained from the World Bank.

The focus of the study is towards the middle classes in the Latin American countries participants in the most recent WVS: Argentina, Brazil, Mexico, Chile, Colombia, Ecuador, Uruguay, and Peru. The Latin American middle class is considered a critical component to regional economic development and is expected to have lower inequality in countries through larger middle classes (Torche et al., 2011). Thus, this analysis is based on a dataset, derived from 10,440 individual responses representing eight Latin American countries. Multiple linear regression estimates for the economic drivers were used to examine the effect in the middle class. To relate its deterministic economic effect, controls for GDP were used. The

GDP is a standard measure of average standard of living conditions and prosperity measurement establishing that with the higher GDP levels, the better living conditions opportunities for the population. However, since incomes distributions are not equally compelled within countries, we combine Gini countries' coefficients to assess the income distribution, where lower (higher) levels reflect how the income distributions are evenly made. By using these wealth indicators, we expect to enhance our model combining socio-economic features. The prediction of value for the middle class with the economic driver (I) is accomplished by the following equation:

$$I_{ict} = \alpha + \beta LC_{ict} + \beta UC_{ict} + \delta \log(GDP_{ct}) + \gamma GINIct + \varepsilon_{ict}$$

To deal with the best prediction equation, there are four predictor variables: value for lower class with economic driver (β LC), value for upper class with economic driver (β UC), GDP logarithm value for each country (δ log (GDP)), and Gini coefficient for each country (γ Gini), in there, model weights must be estimated, one for each predictor variable and one for the constant (α) term.

RESULTS

Table 1 and Table 2 present descriptive statistics and summary distributions of individuals by self-perceived class status. Table 3 and Table 3a show the estimates of the regressions of each economic driver. Figure 1 and Figure 1a establish the magnitude of each class distribution by countries. Table 4 displays the effect by each economic driver by country compared to the value of all countries. Appendix B describes the relationship between the actual economic driver middle class and the predicted economic driver middle class graphically, by each economic driver in function of the regression result.

The analysis corresponds to individuals holding a university education who perceived themselves in the middle class. Their ages fluctuate between the ages of thirty to thirty-three, where commonly workforce is located. The gender participation is quite even, represented by an average of 48% for the males and 52% for the females distributed beyond all social classes.

Results across the comparison of means tests by economic drivers preliminary suggest that gender equality and trust in others have a strong and positive influence among populations. In

contrast, it also indicates that technology adoption, market competition, and upward mobility have less impact based on the perception among the Latin American participant population.

To determine social classes' distribution, we employed the Cantril Self-Anchoring Striving Scale, developed by pioneering social researcher Dr. Hadley Cantril. It consists of the following: a ladder with steps numbered from 1 at the bottom up to 10 at the top. Figure 1a presents the Cantril ladder for a range of scales of incomes by country for the self-perceived position. The top of the ladder represents the upper classes, and the bottom of the ladder represents the lower classes. The pattern for lower classes (levels 1 to 2) suggests that the lower classes relate to countries Argentina, Brazil, and Uruguay. The pattern for middle classes (levels 3 to 6) indicates that the middle classes are associated to Uruguay. Finally, the pattern for upper classes (levels 7 to 10) suggests its association to Uruguay and Peru.

The estimates of the regressions for each economic driver are presented in Tables 3 and Table 3a integrating all countries as a region. As detailed in Table 3, economic drivers trust in others, and gender equality are the ones with the highest positive correlation (upper and lower classes) with the middle classes for all countries. The gender equality driver (upper and lower classes) significantly predicted gender equality for middle classes. The results were significant, p < .05, $R^2 = .098$, indicating that approximately 9.8% of the variance in gender equality of middle classes is explained by gender equality (upper and lower classes), GDP (all countries), Gini (all countries). Trust in others driver (upper and lower classes) significantly predicted trust in others in middle classes. The results were significant, p < .03, $R^2 = .049$, indicating that approximately 4.9% of the variance of trust in others in middle classes is explained by trust in others (upper and lower classes), GDP (all countries), Gini (all countries).

Analyzing the individual effect of the economic drivers for each country, as shown in Table 4, emerges different results for the influence of the economic drivers. Findings across the countries maintain the same steady prediction for gender equality, but not for trust in others. Trust in others resulted not significant in any of the countries when individually measured. In contrast, technology adoption in the middle class was significantly predicted in the following countries: Argentina, Brazil, Mexico, Peru, Ecuador, and Uruguay. Ecuador and Peru were the most significant, $R^2 = .025$ for Ecuador, and $R^2 = .016$ for Peru.

The economic driver market competition in the middle class is significantly predicted in the following countries: Argentina, Brazil, Peru, Chile, Ecuador, and Uruguay. For Chile,

Uruguay, and Argentina, the results were the most significant, $R^2 = .009$ for Chile, $R^2 = .009$ for Uruguay, and $R^2 = .008$ for Argentina.

Gender equality in the middle class is significantly predicted in Mexico, Peru, Colombia, Ecuador, and Uruguay. Colombia was the highest with $R^2 = .184$ implying that approximately 18.4% of the variance in gender equality (middle class) is explained by gender equality (upper and lower classes), GDP (Colombia), Gini (Colombia).

Finally, the economic driver upward mobility in the middle class is significantly predicted in Argentina, Brazil, Chile, and Uruguay. For Chile and Argentina, the results were the most significant, $R^2 = .018$ for Chile, and $R^2 = .014$ for Argentina respectively.

CONCLUDING REMARKS

This paper contributes to extending the empirical literature on inequality estimating the impact of social classes' on eight Latin America countries economic growth. The study also provided a different perspective on class status based on self-perceptions rather than objective income measures. Middle-class values have long been perceived as drivers of social cohesion and economic growth. Thus, this research investigated the probability of achieving equality at socio-economic levels of the upper and lower classes within Latin America countries using five different drivers as possible routes.

The model analysis and results suggest that social classes' inequality in Latin America countries has a negative impact on economic growth. Latin America is often singled out because of its high constant patterns of income inequality. With a Gini coefficient for all sample countries closer to 50 in 2015, Latin American countries struggle with a rating index of 20 more unequal than the high-income countries in the world. Moreover, these results suggest the principal channels through which inequality negatively affects economic performance. The population is highly serving in social safeguard contexts like standing, claims, and protection of assets against a backdrop of social-driven relationships - market competition - and the opportunities for rising to higher stratification levels or economic position - upward mobility - of the segments of this region. The analysis empirically identified avenues to lower social classes' inequality: (1) the state of equal ease of access of resources and opportunities regardless of gender, including economic participation and decision-making - gender equality - and (2) a sustainable and lasting chain of decisive actions among the social classes - trust in others.

In general, the large variation across Latin America countries in values indicates that the social and cultural makeup of a country may influence into whether a country has more values conducive to economic growth and social classes' development. Therefore, it implies there are broader and more complex issues that cannot just be resolved by standard policies that attempt to increase income and move people up in class status.

According to our model, the reduction in inequality and poverty levels must result in a larger middle class. Findings for upper classes suggest that besides trust in others and gender equality; technology adoption represents another mechanism to the reduction of the social classes' inequality. This result is consistent with middle-class importance regarding its demand for better goods and services.

In conclusion, inequality has social and economic consequences. It affects social cohesion, enlarges government costs, and negatively influences the individual confidence level in the future. Within this context, it may impact personal choices for education which will be reflected in the lack of income advancements opportunities. Our findings have relevant implications for public and private strategic decisions makers concerned about slow economic growth and rising social classes' equality leverage. It persuades those with the power to reduce inequality levels through policies with emphasis on gender equality and trust in others as economic engines of social changes in Latin America. The individual results for each country and the findings for the region suggest the need to establish tailor-made practices to address the citizens' demands in each country. It is expected that country specific strategies implementation strengths the region by improving its competitiveness while lowering the inequality levels towards the progress of human desires development.

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Figure 1. Scale of Income

| _ | | SCALE OF INCOME (Crosstab distribution of the participants) | | | | | | | | | |
|----------------|--------|---|--------|--------|--------|--------|---------|--------|--------|--------|---------|
| SOCIAL | Lower | Second | Third | Fourth | Fifth | Sixth | Seventh | Eigth | Nineth | Tenth | |
| CLASS | step | step | step | step | step | step | step | step | step | step | AU |
| Upper | 14.84% | 12.44% | 11.21% | 13.92% | 26.19% | 26.92% | 28.30% | 22.23% | 19.99% | 23.96% | 100.00% |
| Middle | 15.91% | 14.82% | 23.66% | 33.77% | 50.58% | 30.11% | 19.09% | 8.43% | 2.47% | 1.15% | 100.00% |
| Lower class | 24.50% | 20.04% | 17.74% | 12.28% | 13.10% | 6.35% | 3.58% | 1.59% | 0.53% | 0.29% | 100.00% |

Figure 1a. Range of scale of incomes by country for self-perceived distributions of class status

| | | | SCALE OF INCOMES | | | | | | | | | |
|---------------|--------------|--------|------------------|--------|--------|------------|------------|---------|------------|--------|--------|---------|
| | SOCIAL | | | | | | | | | | | |
| | CLASS | Lower | Second | Third | Fourth | | | Seventh | | Nineth | Tenth | |
| COUNTRY | (subjective) | step | step | step | step | Fifth step | Sixth step | step | Eigth step | step | step | All |
| | Upper class | 14.84% | 12.44% | 11.21% | 13.92% | 26.19% | 26.92% | 28.30% | 22.23% | 19.99% | 23.96% | 100.00% |
| ALL COUNTRIES | | | | | | | | | | | | |
| ARGENTINA | | | | | | | | | | | | |
| BRAZIL | | | | | | | | | | | | |
| CHILE | | | | | | | | | | | | |
| MEXICO | | | | | | | | | | | | |
| PERU | | | | | | | | | | | | |
| COLOMBIA | | | | | | | | | | | | |
| ECUADOR | | | | | | | | | | | | |
| URUGUAY | | | | | | | | | | | | |

| | Middle Class | 15.91% | 14.82% | 23.66% | 33.77% | 50.58% | 30.11% | 19.09% | 8.43% | 2.47% | 1.15% | 100.00% |
|---------------|--------------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|---------|
| ALL COUNTRIES | | | | | | | | · | · | | | |
| ARGENTINA | | | | | | | | | | | | |
| BRAZIL | | | | | | | | | | | | |
| CHILE | | | | | | | | | | | | |
| MEXICO | | | | | | | | | | | | |
| PERU | | | | | | | | | | | | |
| COLOMBIA | | | | | | | | | | | | |
| ECUADOR | | | | | | | | | | | | |
| URUGUAY | | | | | | | | | | | | |

| | Lower class | 24.50% | 20.04% | 17.74% | 12.28% | 13.10% | 6.35% | 3.58% | 1.59% | 0.53% | 0.29% | 100.00% |
|---------------|-------------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|---------|
| ALL COUNTRIES | | | | | | | | | | | | |
| ARGENTINA | | | | | | | | | | | | |
| BRAZIL | | | | | | | | | | | | |
| CHILE | | | | | | | | | | | | |
| MEXICO | | | | | | | | | | | | |
| PERU | | | | | | | | | | | | |
| COLOMBIA | | | | | | | | | | | | |
| ECUADOR | | | | | | | | | | | | |
| URUGUAY | | | | | | | | | | | | |

| Type of Value | Across Classes | | | | | | | |
|---------------------|----------------|--------|-------|-----|--|--|--|--|
| | Upper | Middle | Lower | All | | | | |
| Technology Adoption | .54 | .49 | .51 | .51 | | | | |
| Trust in Others | .30 | .31 | .32 | .31 | | | | |
| Market Competition | .46 | .47 | .45 | .46 | | | | |
| Gender Equality | .40 | .40 | .40 | .40 | | | | |
| Upward Mobility | .57 | .57 | .55 | .57 | | | | |

Table 1: Mean values of indexes and corresponding components by class

Note: The value indexes comprise questions whose details are found in the WVS, Wave 6. Refer to Appendix A for measurements.

| Variable | Distributi (Percent) | on across Classe | Distribution within Classes (Percent) | | | | |
|------------------------|-------------------------|------------------|--|-----|-------|--------|-------|
| | Upper | Middle | Lower | All | Upper | Middle | Lower |
| Sex | | | | | | | |
| Male | .87 | 57.18 | 41.95 | 100 | 49 | 49 | 45 |
| Female | .80 | 55.70 | 43.50 | 100 | 51 | 51 | 55 |
| Level of Education | | | | | | | |
| No formal Education | 1.50 | 34.59 | 63.91 | 100 | 3.64 | 2.24 | 7.32 |
| High School | .25 | 62.17 | 37.58 | 100 | 5.45 | 39.38 | 41.00 |
| University | 1.46 | 80.82 | 17.74 | | 20.00 | 40.89 | 8.62 |
| | | | | | | | |
| Age (mean) | 32 | 31 | 30 | | | | |

Table 2: Descriptive Statistics and Summary Distributions of Individual by Self-Perceived Class Status

| Variables | Technology Adoption | Trust in Others | Market Competition | Gender Equality | Upward Mobility |
|--------------|------------------------|--------------------|-----------------------|--------------------|--------------------|
| LC | 0.89 | 0.03** | 0.32 | 0.00*** | 0.24 |
| UC | 0.04 ** | 0.01** | 0.29 | 0.00*** | 0.42 |
| GDP | 0.21 | 0.00*** | 0.00*** | 0.05** | 0.00*** |
| GINI | 0.06 | 0.00*** | 0.49 | 0.05** | 0.72 |
| Constant | 5.741 | 4.37 | 3.90 | 10.49 | 7.46 |
| Observations | 10,440 | 10,440 | 10,440 | 10,440 | 10,440 |
| R-squared | 0.1% | 4.9% | 0.1% | 9.8% | 0.1% |
| | | | | | |

Table 3: Class Progressivity in Model (significances p-values, all countries)

*** p<0.01, ** p<0.05, * p<0.1

GDP = gross domestic product per capita, LC = lower class, UC = upper class, Gini = standard economic measure for income inequality

| LC-0.2-4.1-1.8-38.8-2.1UC-4.0-4.8-2.1-42.7-1.8GDP7.9-72.221.6-19.3-31.6GINI-41.410516.5-67.3-11.2Constant5.7414.373.9010.497.46Observations10,44010,44010,44010,440 | Variables | Technology Adoption | Trust in Others | Market Competition | Gender Equality | Upward Mobility |
|---|--------------|------------------------|--------------------|-----------------------|--------------------|--------------------|
| UC-4.0-4.8-2.1-42.7-1.8GDP7.9-72.221.6-19.3-31.6GINI-41.410516.5-67.3-11.2Constant5.7414.373.9010.497.46Observations10,44010,44010,44010,440 | LC | -0.2 | -4.1 | -1.8 | -38.8 | -2.1 |
| GDP7.9-72.221.6-19.3-31.6GINI-41.410516.5-67.3-11.2Constant5.7414.373.9010.497.46Observations10,44010,44010,44010,440 | UC | -4.0 | -4.8 | -2.1 | -42.7 | -1.8 |
| GINI-41.410516.5-67.3-11.2Constant5.7414.373.9010.497.46Observations10,44010,44010,44010,440 | GDP | 7.9 | -72.2 | 21.6 | -19.3 | -31.6 |
| Constant5.7414.373.9010.497.46Observations10,44010,44010,44010,440 | GINI | -41.4 | 105 | 16.5 | -67.3 | -11.2 |
| Observations 10,440 10,440 10,440 10,440 10,440 | Constant | 5.741 | 4.37 | 3.90 | 10.49 | 7.46 |
| | Observations | 10,440 | 10,440 | 10,440 | 10,440 | 10,440 |

Table 3a: Class Progressivity in Model (Beta all countries)

| Countries | Technology Adoption | Trust in Others | Market Competition | Gender Equality | Upward Mobility |
|-----------|------------------------|--------------------|-----------------------|--------------------|--------------------|
| Argentina | 0.6% | 1.5% | 0.8% | 5.5% | 1.4% |
| Brazil | 0.2% | 0.6% | 0.5% | 6.2% | 0.5% |
| Mexico | 0.9% | 0.4% | 0.1% | 10.2% | 0.0% |
| Peru | 1.6% | 1.1% | 0.4% | 11.2% | 0.1% |
| Chile | 0.1% | 1.3% | 0.9% | 5.3% | 1.8% |
| Colombia | 0.1% | 0.5% | 0.0% | 18.4% | 0.0% |
| Ecuador | 2.5% | 0.9% | 0.3% | 10.5% | 0.1% |
| Uruguay | 0.2% | 0.1% | 0.9% | 13.8% | 0.7% |

Table 4: Model impact in middle class by country $(R^2, \%)$

[**Bold**] values above the R^2 for all countries

| Appendix A: | World Value | Survey (W | 'ave 6) m | easurements |
|-------------|-------------|---|-----------|-------------|
| | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | |

| Drivers | WVS questions |
|---------------------|---|
| Technology adoption | V68: More emphasis on the development of technology |
| | V192: Science and technology are making our lives healthier, easier, |
| | and more comfortable |
| | V193: Because of science and technology, there will be more |
| | opportunities for the next generation |
| | V197: All things considered, would you say that the world is better off, |
| | or worse off, because of science and technology? Please tell me which |
| | comes closest to your view on this scale: I means that "the world is a lot |
| | worse off," and 10 means that "the world is a lot better off" |
| | V225: How often, if ever, do you use a personal computer? |
| Trust in others | V24: Generally speaking, would you say that most people can be trusted |
| | or that you need to be very careful in dealing with people? |
| | V56: Do you think most people would try to take advantage of you if they |
| | got a chance, or would they try to be fair? Please show your response on |
| | this card, where 1 means that "people would try to take advantage of |
| | you," and 10 means that "people would try to be fair". |
| | I'd like to ask you how much you trust people from various groups. |
| | Could you tell me for each whether you trust people from this group |
| | completely, somewhat, not very much or not at all? |
| | V102: Your family |
| | V103: Your neighborhood |
| | V104: People you know personally |
| | V105: <i>People you met the first time</i> |
| | V106 : <i>People of another religion</i> |
| | V107: <i>People of another nationality</i> |
| | V160B: I see myself as someone who is generally trusting |

| Drivers | WVS questions |
|--------------------|--|
| Market competition | V46 : When jobs are scarce, employers should give priority to people of this country over immigrants |
| | V97 : Private ownership of business and industry should be |
| | increased/Government ownership of business and industry should be increased |
| | V99: Competition is good. It stimulates people to work hard and develop |
| | new ideas/Competition is harmful. It brings out the worst in people |
| | V101: People can only get rich at the expense of others / Wealth can |
| | grow so there's enough for everyone |
| Gender equality | V45 : When jobs are scarce, men should have more right to a job than women |
| | V51: On the whole, men make better leaders than women do |
| | V52: A university education is more important for a boy than for a girl |
| | V53: On the whole, men make better business executives than women do |
| | V139: Women have the same right as men |
| Upward mobility | V55 : Some people feel they have completely free choice and control over their lives, while other people that what they do has no real effect on what happens to them. Please use this scale where 1 means "no choice at all" and 10 means "a great deal of choice" to indicate how much freedom of choice and control you feel you have over the way your life turns out". |
| | Now I'd like you to tell me your views on various issues. How would you place your views on this scale? I means you agree completely with the statement on the left; 10 means you agree completely with the statement on the right; and if your views fall somewhere in between, you can choose any number in between. V96 : Incomes should be more equal / We need larger income differences as incentives for individual effort |

| Drivers | WVS questions |
|---------|---|
| | V100 : In the long run, hard work usually brings a better life/Hard work |
| | doesn't generally bring success-it's more a matter of luck and |
| | connections |
| | connections |



Appendix B: Economic Drivers Model effect in the Middle Class (all countries)