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Economic development and democracy in Mexico in times of COVID-19

José Carlos Espinoza
Universidad Autónoma de Nuevo León, México
jose.espinozabr@uanl.edu.mx
https://orcid.org/0000-0001-6718-9336

Alejandro Ramírez Viveros
Universidad Autónoma de Nuevo León, México
alejandro.ramirezvvr@uanl.edu.mx
https://orcid.org/0000-0003-1559-2021

Pedro Paul Rivera Hernández
Universidad Autónoma de Nuevo León, México
pedro.riverahrn@uanl.edu.mx
https://orcid.org/0000-0002-2137-2538

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Abstract

COVID-19 affected every country in the world in myriad ways in recent years, including economically, politically, and socially. Mexico is no exception. This study analyzed economic development and democratic progress in Mexico during the COVID-19 pandemic and examined the relationships between these two variables. These associations were estimated through a regression analysis of data obtained for 2019 and 2020. The relationship between the variables was found to be consistent and presented a consensual perspective of the pandemic in Mexico. The data indicated that higher levels of democracy yield higher levels of economic development.

Keywords: economic development, democracy, COVID-19, consensual view, regression analysis.

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I. Introduction

The quest for development seeks a better quality of life for more people, which has been a fundamental goal for democratic states from the beginning of the 20th century. Hence, it may be asserted that development is the primary objective of a democratic state. In fact, democracy is essential for the achievement of equitable and sustainable development, which requires institutions to be strengthened and mandates the implementation of effective public policies (Payne et al., 2006).

Democratic development has progressed in Mexico in recent decades. The country now holds free elections, causing civil and political freedoms to flourish. Democratic development may be considered a challenge for the government and the entire Mexican society (IDD-Mex, 2021). Mexican democracy was affected by COVID-19 in 2020, at least according to citizen perceptions. According to Latinobarómetro (2021), only 43% of Mexican citizens prefer democracy to another type of government system, 33% are dissatisfied with democracy, and the remainder are indifferent (26%). These statistics signal the disapproval of Mexican citizens. The pandemic circumstances merely exacerbated a problem that has persisted over the last few decades.

In addition, COVID-19 adversely influenced economic development in Latin America, where Mexico is located. Indeed, Latin America houses 8.4% of the world's population but this region presented 18.5% of all COVID-19 cases worldwide and reported 30.3% of the global pandemic-related deaths (ECLAC, 2021). Latin America was also most affected in terms of economic activity and unemployment. In particular, the United Nations Economic Commission for Latin America and the Caribbean (ECLAC , 2021) reported a 7.7% decrease in Mexico's gross domestic product (GDP) during the pandemic and a corresponding 9.5% increase in the nation's unemployment

Therefore, the principal question for this study stems from the assumption that COVID-19 adversely affected the democratic and economic development of Mexico during the pandemic. How did economic development and democracy levels correlate in Mexico in pandemic times? An answer to this question requires an analysis of the economic development and the level of democracy exhibited in 2019 and 2020. This study utilized the Social Progress Index (SPI) to ascertain economic development and employed the Democratic Development Index (DDI) to determine the democracy level.

This study examined the relationship between the level of democratization and the level of economic development in Mexico during the COVID-19 years. In so doing, it enhanced the existing knowledge related to certain problems triggered by the recent pandemic.

This paper initially outlines the extant scholarly findings about the relationships between economic development and democracy levels. Next, it describes the indicators used for the present investigation before explaining the research methodology. The penultimate section of the paper outlines the results of the conducted regression analysis. The last section presents the conclusions derived from the study.

II. Democracy and Economy

No consensus exists on the causality of the associations between democracy levels and economic development. Some scholars even posit this relationship as an example of the chicken and egg problem (Brieger and Markwardt, 2020). However, all extant postulations are derived from the classic modernization hypothesis (Lipset, 1959) that associates democracy levels with economic development stages. In fact, democratization levels increase with economic development.

Diamond (1992) asserted that Lipset's hypothesis marked the inception of all future research on the relationship between political systems and economic development. Nevertheless, Brieger and Markwardt (2020) mooted two possible stances vis-à-vis the consideration of the democratization level as an independent variable: consensual and critical. The consensual view deems that democratization exerts a positive impact on economic development; put differently, democracy and the economy are positively related. The critical standpoint presumes that democratization reduces or does not affect economic development; in other words, democratic development does not improve the economy.

Persson and Tabellini (2009) validated the consensual view using world data from 1800 to 1994, establishing that higher democratic percentages are associated with greater economic growth because democracies display increased stability. Democratic capital has also been measured and compared through country-specific historical experiences of democracy.

Several studies have attempted to identify the relationships between types of government systems and economic development. Governance systems could influence economic growth directly or indirectly: democracy does not emerge as a consequence of economic development; however, empirical patterns indicate the increased fragility of democracy in countries exhibiting declining per capita incomes (Przeworski, 2004).

In addition, Gerring et al. (2005) classified governance systems as democratic and authoritarian to investigate whether types of government regimes were associated with the economic growth of nations. Their study found that the type of governance affects the economic performance of a country: democracies are associated with both positive and negative elements and can even yield completely negative effects; however, many nations have become enormously wealthy under authoritarian governments. Thus, Gerring et al. (2005) concluded that democracy is a luxury that only rich countries can afford. Conversely, Rodríguez-Burgos (2015) studied the problems associated with democratic transition in countries as a consequence of observing the positive relationship between economic development levels and the democratic system.

Some existing studies have certainly demonstrated a positive relationship between economic development and democracy. However, the extant studies have primarily found that the level of economic development produces the level of democracy but democracy does not cause economic development (Huber et al., 1993; Burkhart and Lewis-Beck, 1994). Another special finding concerns the effects of economic development on electoral democracies: electoral fraud, election-related violence, and vote buying tend to decrease with economic progression (Knutsen et al., 2018).

Several studies have evidenced the existence of a positive relationship between democracy levels and economic development; others have not found enough statistical substantiation of this association. No relationship between economic development and democracy has been ascertained at the regional level in Latin America, even when control factors have been instituted for subregional variations (Landman, 1999). No international evidence exists that economic development exerts a causal effect on democracy (Robinson, 2006). However, per capita income and democracy have been correlated because the economic characteristics of a society have been found to determine its levels of prosperity and democracy.

Other studies have attempted to apprehend the relationship between democracy and economic variables from broader perspectives. Birdsall, Lustig, and McLeod (2011) examined economic inequalities apropos the development of Latin America between 1990 and 2008. Their study found that democratic regimes in this region reduced inequalities through structural changes. In contrast, populist governments failed to diminish inequities. Additionally, democratic administrations were found to design more redistributive social policies while also maintaining a steady macroeconomy. A study by Radu (2015) investigated the associations between political variables and economic development, evaluating Eastern European countries and using political freedom, stability, and security as variables representing the political environment. All three political determinants were found to impact GDP. In fact, political security was positively associated with education and investment levels. Some studies have emphasized the different degrees of incidence of specific political parties vis-à-vis certain economic variables , notwithstanding the type of government. However, the type of governance can certainly be implicitly construed from the studied political parties. A political party effect was indicated on economic policies, particularly on the fiscal policies of the Balkan countries, Sweden, and Norway (Pettersson, 2007; Fiva et al., 2013). However, some extant studies have found no evidence of the impact of political parties on economic policies (Ferreira y Gyourko, 2009; Gerber y Hopkins, 2011; Acuña et al., 2019).

The present study statistically tests the hypothesis of the consensual standpoint that democracy levels exert a positive impact on economic development.

III. Indicators of Economic Development and Democracy Levels

This section describes the two variables of economic development and democracy level and explains their respective indices used for this study, the SPI and the DDI.

Economic Development

According to the Social Progress Imperative (2019), a society's success is defined by its development. The concept of development is intimately associated with the notion of modernity, which is based on the conviction that earthly existence can become progressively superior and tend toward the ideal. The logic and essence of development are grounded in the advancement of internal forces that determine modernity (Rojas, 2012).

Development represents an improvement in living conditions and can thus be characterized as a journey from a state that is deemed inferior to a condition that is considered superior. Development is also associated with a specific space and time; therefore, its implications can vary depending on the place or time in which it is evaluated (Rojas, 2009). Porter et al. (2013) define social development as the ability of a certain society to satisfy the basic human needs of each of its citizens by creating conditions that allow all individuals to reach their potential and establishing platforms that allow communities to improve and sustain the desired quality of life.

The Organisation for Economic Co-operation and Development (OECD, 2006) views quality of life, well-being, or sustainability as indicators of the development of a society. Thus, the wrong perspective could emerge if development is quantified solely through economic activities. Development may be measured in different ways; however, it is evident that a development indicator must encompass economic as well as political, educational, health, safety, and environmental variables (Estes, 1984). Moreover, the United Nations (UN) continues to adjust and improve its methodologies of interpreting social development. Initially, the UN established the Human Development Index (HDI) to monitor the development of nations. Discrete development indicators have now been derived from the HDI.

Other institutions have also sought to quantify development in ways other than measuring the HDI. The Social Progress Imperative is one such organization: it has measured the social and environmental performance of countries since 2013, publishing an annual SPI. This SPI methodology incorporates four fundamental principles: social and environmental indicators, indicators of results and not performance, relevant indicators for the context, and indicators potentially resulting from public policies or social interventions.

The SPI features the 17 Sustainable Development Goals proposed by the UN (UNDP, 2018). These markers are used to quantify the development of a society and represent the main objectives of political discourse. They can also serve to justify decision-making related to public policies or explain the actions of international organizations (Rojas, 2009). The SPI comprises three dimensions: basic human needs, well-being, and opportunities. These three aspects are composed of twelve development-related elements associated with concepts such as access to basic, information, and elective services. Each component is represented by variables reflecting its current situation (México, ¿cómo vamos?, 2019). From the inception of its pioneering studies, the Social Progress Imperative found empirical evidence of the positive relationship between social development and economic growth. Further, it found a significant and positive relationship and evidenced a direct connection between the SPI and the per capita GDP for 2019. However, this relationship is notably nonlinear: low-income countries exhibit a sizable increase in social development despite small increments in their per capita GDP whereas small differences in the per capita GDP of high-income countries remain associated with low social development. Perhaps, the per capita GDP cannot be adopted as the only explanatory variable of development (Social Progress Imperative, 2019). Mexico ranked 55 among 149 countries in SPI 2019. Norway, Denmark, Switzerland, Finland, and Sweden took the first position. In SPI 2020, Mexico was ranked 62 out of 163 countries and Norway, Denmark, Finland, New Zealand, and Sweden occupied the best positions.

A version of the SPI has been specifically created for Mexico since 2019. It serves as an independent indicator of social development to complement GDP and to encourage political leaders, social interest groups, and academics. This adaptation intended to expound and implement a systematic and structured approach to promote inclusive growth (Mexico ¿cómo vamos?, 2019). This SPI adaptation was mooted?" in collaboration with the Social Progress Imperative by an organization named "Mexico, ¿cómo vamos." This association encompasses a group of researchers and includes academics and experts in Mexican economics and public policy.

Like the international SPI, the methodology of the Mexican adaptation defines three dimensions: basic human needs, well-being, and opportunities. Each dimension incorporates four components intended to measure social development. Unlike the international SPI, which uses 51 indicators, the national index employs 58 indicators obtained from official information sources, public institutions, and technical public entities, as well as non-governmental organizations.

A higher value in each indicator is interpreted as representing greater social development. The SPI scale spans from 0 to 100 and is obtained from the simple average of the three dimensions. Each dimension is denoted on a scale from 0 to 100 and its value is calculated as the simple average of the four components of that dimension. The 58 indicators are listed in the Exhibits section appended to this manuscript. A significant and positive relationship was estimated between social development and per capita GDP using both the international and national SPI versions. This outcome demonstrates the close association between social

development and per capita GDP. In addition, a positive correlation was also discovered between the SPI and the HDI. Thus, both tools are appropriately complementary. A significant and negative relationship was also determined between the SPI and the level of poverty in each state in Mexico. The present study considered economic development variables as quantified by the SPI.

Democracy Levels

This study utilized a non-binary variable to identify the extent of democracy in a region. Democracy works with arbitrary values, like any other social phenomenon. Democracy can be developed in a region if it can be measured in a manner that transcends the evaluation of specific but irrelevant properties (Sartori, 2004).

Quantification allows critical debate, promotes social mobilization, helps in the articulation of social issues, and even facilitates the reinstatement of issues that have faded so they can be placed on the government agenda (Kurunmaki et al., 2016; Demortain, 2019).

The measurement of democracy levels should approximate ideals of living and indicate the distinctions between ideal and actual levels, always taking into account the perceptions of the public. The final result should incorporate a diversity of variables and factors associated with the relevant region: for instance, structural elements such as economic inequality, institutional features such as the party system, and sociocultural constituents such as social capital (Rivas, 2015).

Latinobarómetro, a non-profit corporation based in Chile, offers one of the most significant quantifications of democracy in Latin America. Latinobarómetrois is financed by multiple international organizations, countries, and private funds that conduct surveys to estimate democracy levels. Such surveys question respondents about their preferences for types of government and their support, perception, rejection, or satisfaction with democracy (Latinobarómetro, 2021).

However, this study utilized the DDI to measure the level of democracy in Mexico. This index was initiated in 2010 by the Konrad Adenauer Foundation, PoliLat Consulting, the Center for Political and Social Studies, the National Electoral Institute (INE), and the Confederation of Social Unions of Entrepreneurs of Mexico.

DDI appraises the strengths and weaknesses of the developmental route taken by Mexican democratic processes. It also evaluates the implementation of democracy in each state of Mexico. The DDI comprises 24 indicators and includes four dimensions of democracy, citizen, institutional, social, and economic democracy. These indicators represent citizens' rights, institutional quality, conditions related to social and human development, economic opportunities, and equity. Hence, the present study calculated the level of democracy from the DDI. The 24 DDI indicators are listed in the Exhibits appended to this document (IDD-Mex, 2021).

IV. Methodology and Data

This study purposed to determine whether democracy levels can be related to specific levels of economic development. It used the SPI as a variable signifying economic development and employed the DDI as a variable reflecting the level of democracy. It incorporated data for 2019 and 2020 obtained for each of the 32 states of Mexico, for the period. The data were obtained from Mexico, ¿cómo vamos?, the Konrad Adenauer Foundation, PoliLat Consulting, the Center for Political and Social Studies, the National Electoral Institute, and the Confederation of Social Unions of Entrepreneurs of Mexico.

Thus, the study variables were established as the SPI and the DDI for 2019–2020 to allow the researchers to observe the changes induced by the COVID-19 pandemic. Model (1) was particularly tested:

$$SPI_i = \beta_0 + \beta_1 DDI_i$$

In this formulation, SPI represents the growth rate calculated between 2019 and 2020 to reflect economic development as measured through the SPI. DDI denotes the growth rate computed between 2019 and 2020 to indicate democratic development as evaluated by the DDI and *i* indicates the concerned state in Mexico.

Model (2) incorporated the dimensions of both SPI and DDI. This model was tested thrice: each test was intended to estimate the effects of the dimensions of democracy on each of the three dimensions of economic development.

$$SPI_{i,i} = \beta_0 + \beta_1 CDI_i + \beta_2 IDI_i + \beta_3 SDI_i + \beta_4 EDI_i$$

In this formulation, j represents each dimension of the SPI: basic human needs, well-being, and opportunities; CDI indicates the citizen democracy index; IDI symbolizes the institutional democracy index; SDI denotes the social democracy index; EDI signifies the economic democracy index; and i indicates the concerned state in Mexico.

Regression analysis was deemed apt as a statistical tool for the study's hypothesis because it would deliver sufficient quantitative evidence to infer whether economic development is related to the level of democracy. The E-Views statistical package was used to perform the regression analysis.

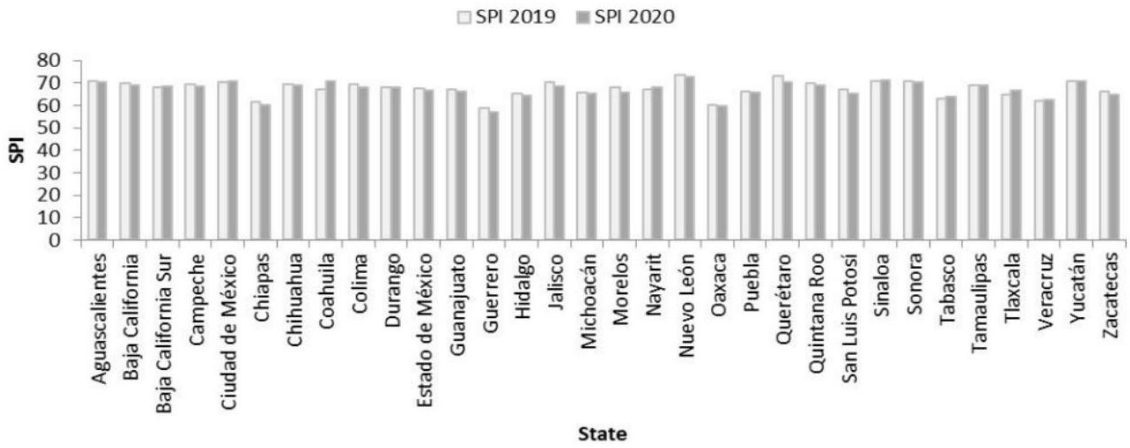
V. Results

This section is classified into descriptive and inferential statistics. The first segment reveals the changes in both SPI and DDI between 2019 and 2020. The SPI results are employed to contextualize the data and review the impact of COVID-19 on these indicators. The second part concerns the statistical analysis through linear regression.

The Impact of COVID-19

COVID-19 affected every economic indicator worldwide, but the variations in percentage terms must be understood because the differences would allow comparisons to be made between the data for 2019 and 2020. Also, quantification would permit appropriate evaluation and comprehension

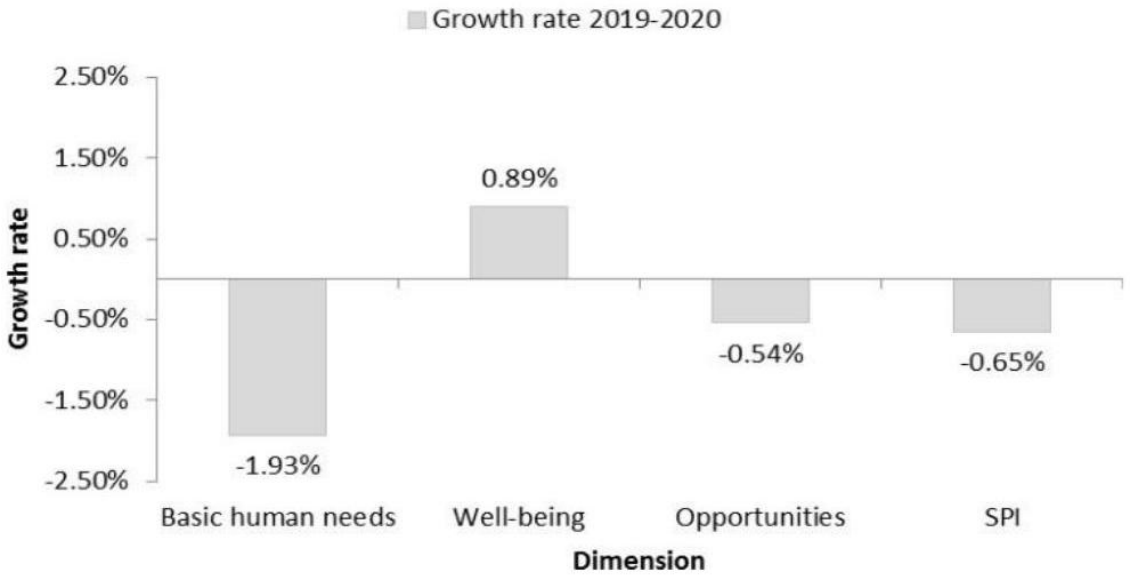
Figure 1. SPI by state



Source: Authors based on the Mexico ¿como vamos? (2019, 2020) data

Figure 1 shows the average SPI by state and represents the variable of economic development. A clear difference was noted between the 2019 and 2020 data. Most states experienced a reduction in the SPI during the COVID-19 year, with an average change of -0.65%. Only 11 of the 32 states increased their SPI, with Coahuila demonstrating the most progress. Conversely, the state of Queretaro registered the worst performance The state of Nuevo León exhibited the highest SPI both in 2019 and 2020, at 73.85 and 72.76, respectively. The worst-positioned state in both years was Guerrero with the SPI value of 58.86 and 56.84, respectively in 2019 and 2020. In general terms, the average SPI was 67.63 in 2019 and 67.18 in 2020 in Mexico, revealing the negative impact of COVID-19 on economic development.

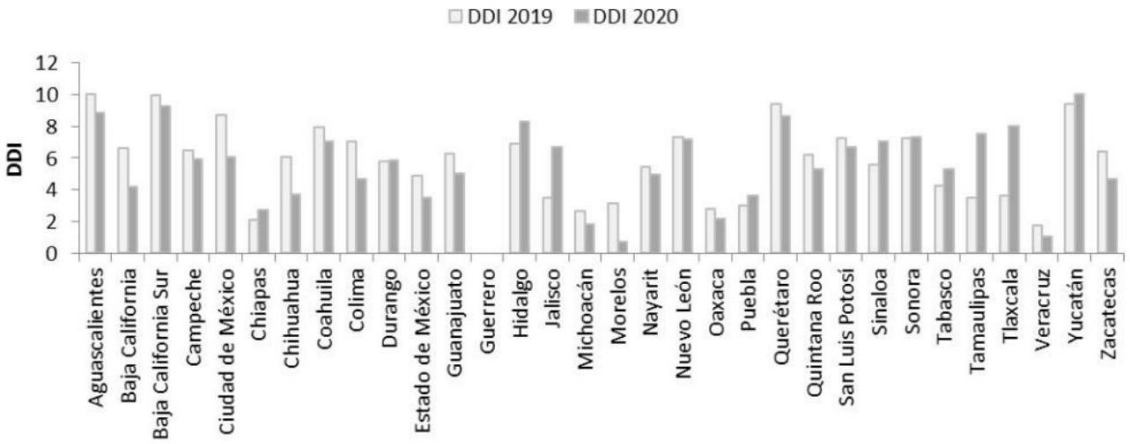
Figure 2. SPI growth rate by dimension



Source: Authors based on Mexico ¿como vamos? (2019, 2020) data

Figure 2 shows the annual growth rate of each dimension of the SPI. The dimensions of basic human needs and opportunities decreased between 2019 and 2020. However, the dimension of well-being increased in this period.

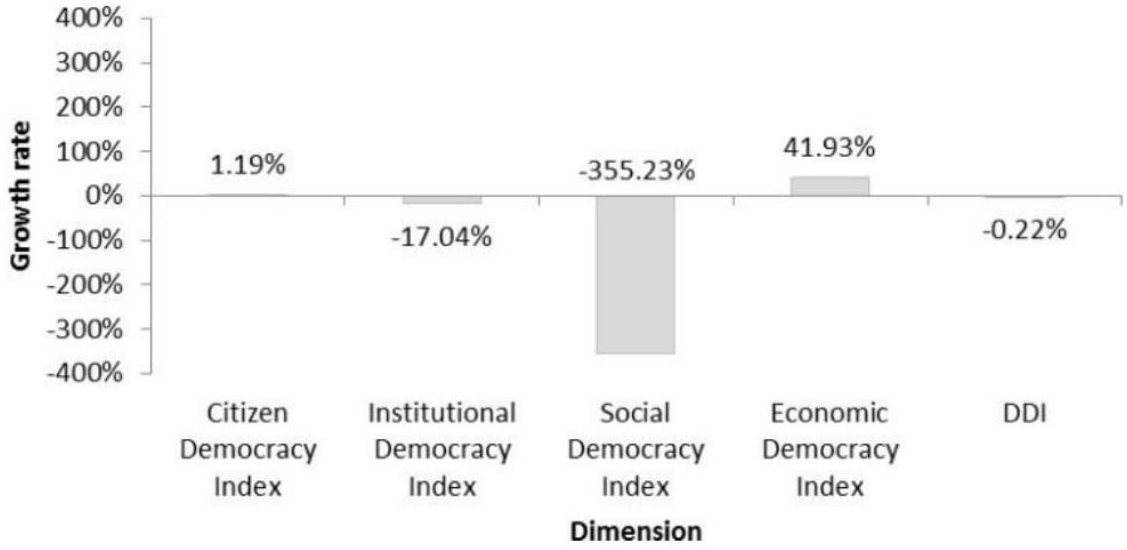
Figure 3. DDI by state



Source: Authors based on IDD-Mex (2019, 2020) data

Figure 3 presents the SPI calculated individually for each state between 2019 and 2020. Considering the average annual variation, the DDI changed by -0.22% as a consequence of the impact of COVID-19. As with the SPI, only 11 of the 32 states showed an increase in the DDI. The state of Tlaxcala recorded the greatest progress, and Morelos registered the worst performance. Aguascalientes evinced the highest DDI value in 2019 and Yucatan exhibited the best DDI value in 2020. The lowest values for both years were recorded for Guerrero. The negative impact of COVID-19 on democratic development was evident because the overall DDI for Mexico fell from 5.66 to 5.43.

Figure 4. DDI growth rate by dimension Growth rate 2019–2020



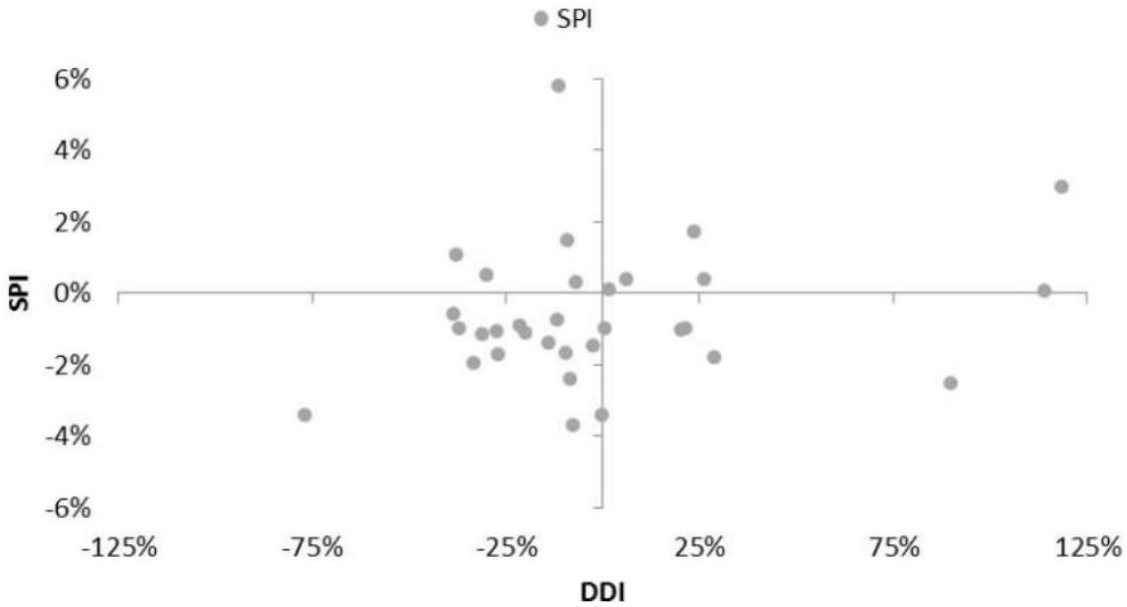
Source: Authors based on IDD-Mex (2019, 2020) data

Figure 4 represents the annual growth rate of each dimension of the DDI. The dimensions of institutional and social democracy were adversely affected during the COVID-19 year. However, the citizens and economy dimensions increased in the same period.

The relationship between economic and democratic development

This section records and discusses the results of the regression analysis performed to estimate the association between economic development and democratic development. In particular, the consensual view was statistically tested as emphasized in the literature review.

Figure 5. SPI and DDI



Source: Authors based on Mexico ¿como vamos? (2019, 2020) and IDD-Mex (2019, 2020) data

Figure 5 displays the relationship between the study variables as represented in terms of the growth rate. This graph suggests a positive relationship which was, nevertheless, statistically tested.

Both SPI and DDI as well as each dimension were considered in terms of the growth rate in the regression analysis. In other words, the relationship was assessed in terms of the differentials noted between 2019 and 2020.

Table 1. Results of the regression analysis

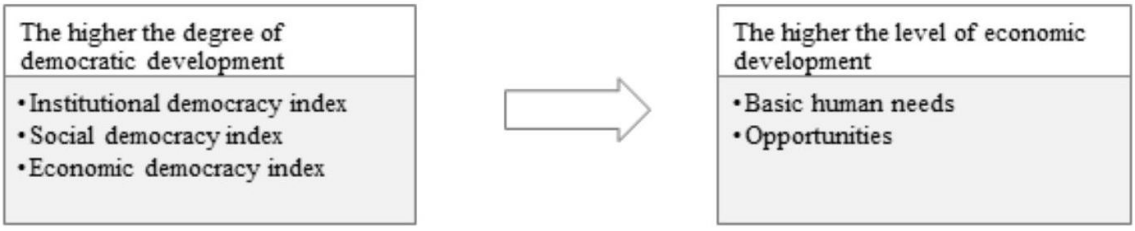
	SPI	Basic human needs	Well-being	Opportunities
Independent variable		**Coefficient**		**-**
DDI	0.010711 (0.008270)	-	-	0.009086
	-	−0.009942	0.001334	(0.008803)
CDI	-	(0.013080)	(0.010739)	0.026760
	-	0.093014*	−0.032177	(0.020271)
IDI	-	−0.000106	(0.28294)	0.000698*
	-	(0..000317)	−0.000153	(0.000142)
SDI	-0.001493*	5.63E-05	0.000411	
	EDI	(0.000520)	(0.000669)	(0.000731)
R2		2%	19%	

*Source: Authors based on Mexico ¿como vamos? (20198, 20209 and IDD-Mex (2019, 2020) data; Note: * indicates that p-value<0.01; Standard error is inscribed in parentheses*

Table 1 describes the results obtained from the regression analysis for models (1) and (2), where Model (2) corresponds to each dimension of the SPI. The evaluation of Model (1) revealed a positive but not significant relationship between economic development and democratic development. However, certain dimensions of the DDI were significant when each dimension of the SPI was deemed a dependent variable. The principal finding was that each dimension that exhibited significance always displayed a positive coefficient. In other words, enough statistical evidence was found to determine that democracy exerts a positive impact on economic development.

Tests such as homoscedasticity, no autocorrelation, and normality were performed to assess the assumptions of the linear regression model. The goodness of fit of the model was also tested and the value of 20% was achieved according to the r-squared measure. This value was considered adequate because it represented the proportion of a dependent variable that was explained by an independent variable. Also, the SPI comprised 58 indicators and the DDI was constituted of 24 indicators. It can be asserted that the model complied with the classical assumptions of the linear regression model. Therefore, the primary finding was that democratic development represented a differential element in the economic development achieved by a state in Mexico, even though the results were not all significant.

Figure 6. Relationship between economic development and democratic progress in Mexico



Source: Author based on Mexico ¿como vamos? (2019, 2020) and IDD-Mex (2019, 2020) data

Figure 6 simplifies the results obtained through the regression analysis, according to which democratic development exerts a positive effect on economic development. Both the institutional democracy index and the economic democracy index exhibited a positive association with the dimension of basic human needs. Also, the social democracy index and the dimension of opportunities were directly related.

VI. Conclusions

Other scholarly investigations revealed some interesting findings that were, however, not intensively analyzed. The present study performed a regression analysis to determine the associations between democracy levels and economic development.

It found that democratic progress exerted a positive effect on economic development during the recent pandemic in Mexico, where COVID-19 adversely affected democratic and economic progression: the SPI and DDI both declined in 2020. In other words, democratic development levels represent determining elements for the economic development of Mexico. Therefore the hypothesis of the consensual viewpoint is accepted.

These results could signal that democratic structures impact stability because they generate less uncertainty and thus promote investment and growth (Persson and Tabellini, 2009). These findings could also be attributed to the persistence of democratic administrations that tend to foster discrete types of capital: physical, human, social, and political (Gerring et al., 2005).

Beyond the possible causes of the positive associations between democracy levels and economic development, the results presented in this paper could serve to indicate ways in which public policies could be directed at strengthening democracy levels in Mexico, which would, in turn, influence the nation's economic progression.

Therefore, Mexico must invest in democratic progress through actions such as guaranteeing political rights, protecting the freedom of its citizens, promoting citizen participation, instituting equitable gender policies, encouraging transparency, or combating corruption. Such actions will generate positive effects for the Mexican economy.

Future studies could incorporate another variable such as a political party or the ideology of a political party using a right-left spectrum to generate additional knowledge on the associations between democracy levels and economic advancement. Further investigations could also verify the results of the present study at the municipal level in Mexico by considering approximate variables of both SPI and the DDI.

VII. Referencias Bibliográficas

Acuña, Héctor, Diego Carrasco, Martín Carrasco and Andrés Soto (2019). El efecto del partido político del alcalde sobre variables de gasto municipal. El Trimestre Económico, 86, (342), 343-404.

Birdsall, Nancy, Nora Lustig and Darryl McLeod (2011). Declining inequality in Latin America: Some economics, some politics. CDG Working Paper 251. Washington, D.C.: Center for Global Development.

Brieger, Stefan and Gunther Markwardt (2020). The democracy-economy-nexus. Review of Economics, 71, (2), 135-167.

Burkhart, Ross and Michael Lewis-Beck (1994). Comparative Democracy: The. Economic Development Thesis. American Political Science Review, 88(4), 903-910.

Demortain, David (2019). The politics of calculation: Towards a sociology of quantification in governance. Revue d'Anthropologie des Connaissances, 13, (4).

Diamond, Larry (1992). Economic development and democracy reconsidered. American Behavioral Scientist, 35, (4-5), 450-499.

ECLAC (2021). La prolongación de la crisis sanitaria y su impacto en la salud, la economía y el desarrollo social. ECLAC-PAHO.

Estes, Richard (1984). The social progress of nations. New York: Praeger.

Ferreira, Fernando and Joseph Gyourko (2009). Do political parties matter? Evidence from U.S. cities *. Quarterly Journal of Economics, 124, (1), 399-422.

Fiva, Jon, Olle Folke and Rune Sørensen (2013). The power of parties. CESifo working paper. SSRN Electronic Journal, 4119.

Gerber, Elisabeth and Daniel Hopkins (2011). When mayors matter: Estimating the impact of mayoral partisanship on city policy. American Journal of Political Science, 55, (2), 326-339.

Gerring, John, Philip Bond, William Barndt and Carola Moreno (2005). Democracy and economic growth A historical perspective. World Politics, 57, (3), 323-364.

Huber, Evelyne, Dietrich Rueschemeyer and John Stephens (1993). The impact of economic development on democracy. Journal of Economic Perspectives, 7, (3), 71-86.

IDD-Mex (2019). Results presentation 2019. Available on: https://idd-mex.org. IDD-Mex (2020). Results presentation 2020. Available on : https://idd-mex.org.

IDD-Mex (2021). Democratic development index. Available on: https://idd-mex.org.

Knutsen, Carl Henrik, John Gerring, Svend-Erik Skaaning, Jan Teorell, Matthew Maguire, Michael Coppedge and Staffan Lindberg (2019). Economic development and democracy: An electoral connection. European Journal of Political Research, 58, (1), 292-314.

Kurunmaki, Liisa, Andrea Mennicken and Peter Miller (2016). Quantifying, economising, and marketising: Democratising the social sphere? Sociologie du Travail, 58, (4), 390-402.

Landman, Todd (1999). Economic development and democracy: The view from Latin America. Political Studies, 47, (4), 607-626.

Latinobarómetro (2021). Informe anual 2021. Corporación Latinobarómetro. Santiago, Chile.

Lipset, Seymour Martin (1959). Some social requisites of democracy: Economic development and political legitimacy. American Political Science Review, 53, (1), 69-105.

México, ¿cómo vamos? (2019). Social progress index Mexico 2019. Beyond GDP. Available on: https://mexicocomovamos.mx.

México, ¿cómo vamos? (2020). Social progress index Mexico 2020. Beyond GDP. Available on: https://mexicocomovamos.mx.

OECD (2006). Measuring the progress of societies. World Forum on statistics, knowledge and policy.

Payne, Mark, Daniel Zovatto and Mercedes Mateo (2006). La política importa. Democracia y desarrollo en América Latina. Inter-American Development Bank and International Institute for Democracy and Electoral Assistance. Washington.

Persson, Torsten and Guido Tabellini (2009). Democratic capital: The nexus of political and economic change. American Economic Journal: Macroeconomics, 1, (2), 88-126.

Pettersson-Lidbom, Per (2008). Do parties matter for economic outcomes: A regression discontinuity approach? Journal of the European Economic Association, 6, (5), 1037-1056.

Porter, Michael, Scott Stern and Roberto Artavia (2013). Social Progress Index 2013. Social progress imperative. Przeworski, Adam (2004). Democracy and economic development. In Mansfield, Edward and Richard Sisson The evolution of political knowledge: Democracy, autonomy, and conflict in comparative and international politics. Ohio State University Press, 2004.

Radu, Madalina (2015). The impact of political determinants on economic growth in CEE countries. Procedia – Social and Behavioral Sciences, 197, 1990-1996.

Rivas, José (2015). Calidad de la democracia y desarrollo democrático. Working papers, 335. Institut de Ciencies Politiques I Socials.

Robinson, James (2006). Economic development and democracy. Annual Review of Political Science, 9, (1), 503-527.

Rodríguez-Burgos, Karla (2015). Democracia y tipos de democracia. In: Ciencia política: Perspectiva multidisciplinaria. Tirant lo. Blanch, México, D.F., pp. 49-66.

Rojas, Mauricio (2009). Measuring the progress of societies. Reflections from Mexico. Scientific and Technological Consultative Forum.

Rojas, Mauricio (2012). Progreso y desarrollo. Serie de Ensayos de la Biblioteca Virtual de Mauricio Rojas. Septiembre, 2012.

Sartori, Giovanni (2004). ¿Hacia dónde va la ciencia política? Política y gobierno. Vol. XI, Núm. 2, pp. 349-354 Social progress imperative (2019). Social Progress Index 2019. Executive Summary.

United Nations (2015). The Millennium Development Goals report. New York: United Nations.

United Nations Development Programme (2018). Índices e indicadores de desarrollo humano. Actualización Estadística, 2018.

VIII. Exhibits

Table e1. Variables used in the SPI for Mexico

Basic human needs	Well-being	Opportunities
Lack of access to food	Preschool education enrollment	Households with title deeds
Maternal mortality	Illiteracy	Electoral participation
Child mortality	Primary education enrollment	Adequate time to fulfill contracts
Infectious disease mortality	Secondary education enrollment	Public participation in government
Availability of water within homes	Gender parity in secondary education	Adequate time to register property
Water service continuity	Mobile phone users	Ninis
Exclusive sanitary services for housing	Homes with computers	Teenage pregnancies
Homes with walls made of fragile material	Homes with Internet connection	Corruption incidences
Homes with dirt floors	Rates of assault on journalists	Labor informality
Access to electricity	Life expectancy	Time taken for transfers
Homes with wood or charcoal stoves	Suicide rates	Violence against women
Overcrowding	Mortality from circulatory diseases	Trust in neighbors
Homicide rates	Mortality from diabetes	Women in local congresses
Deaths in traffic accidents	Obesity rates	Inclusion of the gay population
Violent crime levels	Water stress	Inclusion of the indigenous population
Presence of organized crime	Burying or burning trash	Inclusion of population with disabilities
Perceived insecurity	Satisfaction with green areas	Higher education absorption
	Use of energy-saving bulbs	Average schooling for women
	Deforestation rates	Gender parity in postgraduate courses
	Deforestation rates	Gender parity for single citizens
		High-quality national postgraduate courses

Table e2. Variables used in the DDI for Mexico

Public Democracy	Institutional Democracy	Social Democracy	Economic Democracy
Political adherence	Perception of corruption	Urban unemployment	
Political rights	Political diversity in the legislative branch		State-society competitive ness
Civil liberties	Participation in public decisions	Health expenditure	Financial autonomy
Gender on Government	Accountability	Illiteracy rates	Investment
Insecurity	Destabilization indicators	Terminal efficiency in sec -	Educational expenses