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Influencers on economic issues in Latin America, Spain and the United States

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Abstract. The technological progress in our modern societies has witnessed the emergence of persons who deploy different means of communication across social networks, seeking to generate an impact among their audiences. These efforts in social media communications attempt to alter consumption preferences and patterns, political choices, as well as reinforce or modify opinions of all sorts and stripes. Individuals who attain greater relevance due to effects they trigger on third parties are characterized as influencers, and one of their preferred means of communication are online platforms or social media. Among them, Twitter stands out as the most conducive space for debates on ideas, political parties, or public policies. This social media platform is a microblogging service that allows a person to send short messages (up to 280 characters) that are displayed on a user's individual page, and that are replicated on their followers' pages. In this paper, we aim to identify the most important influencers in Latin America, the United States and Spain, who use this social media network to debate issues primarily related to economics and economic policy. On this subject, there is a very strong discussion about the role that the government should play in economic life, the pros and cons of greater regulation, the problem of income distribution, the impact of inflation, and the nature of free markets and capitalism. We will first describe the methodology we employed, in order to then proceed to illustrate a ranking of the ten most relevant influencers, in terms of number of followers, from Argentina, Brazil, Colombia, Chile, Mexico, Spain, and the United States. We then explore their profiles and present an analysis of the economic issues debated on the relevant Twitter accounts on a per country basis. Finally, based on this analysis, we present a hypothesis on the positioning of influencers in economic matters.

Keywords. Technological progress, Social media communications, Influencers, Economists.

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1. Introduction

o begin, it is necessary to explain the role that an influencer plays on Twitter. From a certain position of authority, reputation or credibility, an influencer posts various messages to her/his followers (tweets) that

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can include a short paragraph, an image, a link to a piece of writing (a newspaper article, a paper, or a blog post), an invitation to an event (a conference or seminar), a link to a video, or to a statistical table. This communication seeks to disseminate certain information generated by the user, or by third parties, and invites the audience to read, debate, refute or share it. This is usually accompanied by arguments for or against a certain perspective, often laden with passion. The reach of influencers actions is usually measured by the number of followers they have; although, it is also important to consider the reactions generated by their messages. The receiver can indicate by marking "favorite" that (s)he approves of the content, and can make a public comment about it, as well as forwarding or "retweeting" the same content to her/his own followers. In the latter case, the impact of the message is multiplied, since these, in turn, can be repeatedly retweeted by the followers of their followers, and so on.

We aim to identify the ten main economic influencers in each country, classified according to the number of followers. Additionally, the ranking of these same users is perfected by weighing the impact of their publications. Once the influencers have been identified, we will seek to determine their positioning, classifying them as in favor of open markets (+Market) or in favor of greater state intervention (+State), based on the opinions expressed in their Twitter posts and publications.

2. Methodology

For an initial detection of the main influencers, a data mining technique was applied using a Python programming code that, through the Tweepy module, allows access to the Twitter API (Application Programing Interface). Using the Streaming function, it was possible to collect tweets in real time (tweets created after the program was launched), as long as they complied with the filters indicated in the code. In our case, the code filtered the tweets based on the specified keywords that can be selected and entered in the programming code.

To run this program, two key words were selected: "capitalism" and "economy", under the criterion that they would enable the identification of users whose conversations were related to economic issues, regardless of their ideological orientation. Additionally, the code was programmed to count and rank the selected users based on the amount of mentions they had, where the definition of "mentions" in the selected code also incorporated the accumulation of retweets and responses to the original tweets that contained either or both selected words. The code was run for a week (October 4-11, 2020) in order to collect a sufficient number of tweets, and this first step resulted in an extensive list of users who, in their tweets, used any of the two words or both.

From this first list, users were classified by country, and within each country by the number of followers. This last datum was obtained directly from each user's personal account. Then, we eliminated users who, based on

an analysis of their tweets, did not reveal a profile focused on economic issues.

An additional process of verification required to expand the base sample consisted of a search of possible economic influencers that had not been identified in the previous procedure. This undertaking was performed in various ways, namely:

a) An internet search of the most influential or most active economists in social media in each country.

b) Verifying the user recommendations made by Twitter based on the analysis of each of the previously selected users.

c) Verifying user accounts that are retweeted or tweet-mentioned with the symbol @ by the same previously selected users.

This procedure was very useful in completing the registry, since several relevant users were detected that did not appear in the original list.

The new resulting list was, as expected, a set of users whose main interest and/or profession is in economics, classified by country and ranked by number of followers². Then, to obtain a better overview their profiles, the following data was collected: profession, age, number of followers, average retweets, average daily tweets, and average number of favorites for each posted tweet.

To obtain the average number of retweets and the average number of favorites for each posted tweet, we again deployed the Twitter API with a Python code that allows for quantification of all these actions, as well as repercussions of a user in a given period of time. By averaging the values obtained by number of days analyzed, the values used were thereby determined.

It is worth noting that in the case of the United States, the aforementioned selection criteria was not followed. Instead, the list of influencers was provided on the basis of findings in the FocusEconomics site. However, our ranking was also edited following the criterion that a significant number of posted tweets covered economic topics (FocusEconomics, 2020).

3. The reach and ranking of influencers

If the sum of the followers of the ten main influencers per country is calculated and contrasted with their respective population, a measure of the relative importance of the economic debate in each country on Twitter can then be obtained. In comparative terms, the greatest intensity is presented by Colombia. If we assign a value of 100 (per capita) to this country, the results that follow are: Argentina (65), Chile and Spain (50). Of lower intensity are Brazil, Mexico and the United States, with values below 20. These intensities are not related to the frequency of use of Twitter in general

² There are many other influencers on social issues with a large number of followers in the countries analyzed, but who do not deal principally with economic issues. One can mention among them Sergio Sarmiento in Mexico or Sergio Fajardo in Colombia.

in each country, but rather reflect the idiosyncrasies of the channel specifically dedicated to the issues considered herein.

Table 1. Ranking of influencers by number of followers (as of January 2021)										
NAME	COUNTRY	Followers (thousands)	Ranking by followers							
Paul Krugman	United States	4600	1							
Gustavo Petro	Colombia	4024	2							
Ricardo Amorín	Brazil	1400	3							
Alberto Garzon	Spain	1144	4							
Martín Lusteau	Argentina	1100	5							
Óscar Iván Zuluaga	Colombia	805	6							
Alfonso Prat Gay	Argentina	588	7							
Rodrigo Constantino	Brazil	563	8							
Nouriel Roubini	United States	512	9							
Xavier Sala-i-Martin	Spain	505	10							
José Luis Espert	Argentina	486	11							
José Amoedo	Brazil	461	12							
Andrés Velasco	Chile	451	13							
Javier Milei	Argentina	397.5	14							
Clara López Obregón	Colombia	367	15							
Ernesto Samper P.	Colombia	367	16							
Ricardo Lagos	Chile	365	17							
Alejandro Bercovich	Argentina	347	18							
Joseph Stiglitz	United States	339	19							
Steve Hanke	United States	314	20							
Mauricio Cárdenas	Colombia	306	21							
Eduardo Ruíz Healy	Mexico	276	22							
Juan Ramón Rallo	Spain	256	23							
Daniel Lacalle	Spain	234	24							
Roberto Cachanosky	Argentina	229	25							
Martín Tetaz	Argentina	215	26							
Justin Wolfers	United States	207	27							
Sergio Negrete Cárdenas	México	206	28							
Santiago Niño-Becerra	Spain	204	29							
Macario Schettino	Mexico	202	30							
Enrique Quintana	Mexico	196	31							
Ertik Brynjolfsson	United States	189	33							
Martín Guzmán	Argentina	189	32							
Manuel Adorni	Argentina	188	34							
Martin Redrado	Argentina	186	35							
Richard Thaler	United States	183	36							
Laura Carvalho	Brazil	181	37							
Henrique Bredda	Brazil	179	38							
Guillermo Barba	Mexico	178	39							
Axel Kaiser	Chile	174	40							
Tyler Cowen	United States	174	41							
Larry Summers	United States	162	42							
Dani Rodrik	United States	162	43							
Gerardo Esquivel	Mexico	156	44							
Oscar Mario Beteta	Mexico	134	45							
Carlos Rodríguez Braun	Spain	120	46							
María del Rosario Guerra	Colombia	117	47							
Valeria Moy	Mexico	112	48							
Henrique Meirelles	Brazil	110	49							
Salim Mattar	Brazil	108	50							
Felipe Larraín	Chile	108	51							
Jose Carlos Diez	Spain	102	52							
Cecilia Lopez Montaño	Colombia	96.079	53							
Isaac Katz	Mexico	89	54							
Luis Garicano	Spain	84	55							
Raphael Lima	Brazil	82	56							
Alexandre Schwartsman	Brazil	82	57							

Table 1. Ranking of influencers by number of followers (as of January 2021)

Cristián Larroulet Vignau	Chile	76	58
Eduardo Garzón	Spain	75	60
José Piñera	Chile	75	59
Marcel Claude	Chile	75	61
Iván Marulanda	Colombia	72	62
Pedro Fernando Nery	Brazil	71	63
Luis Pazos	Mexico	65	64
Alfredo Sfeir Younis	Chile	58	65
Miguel Gómez Martínez	Colombia	48	66
Gonzalo Bernardos	Spain	46	67
Andrés Villamizar	Colombia	40	68
Luis Larraín Arroyo	Chile	36	69
José Ramón Valente	Chile	32	70

A second ranking, which is shown in Table B, orders the influencers based on an index that considers not merely the number of followers, but also the relative impact of generated tweets (retweets and favorites obtained). This indicator, whose components have been normalized to return values between zero and one, is weighted with a weight of 50% by the number of followers, 25% by the number of retweets and 25% by the number of average favorites obtained by the user for each original tweet. It is interesting to contrast both rankings. One finding that stands out is that some influencers have large followings, but relatively little impact (as here defined). On the other hand, there are influencers who have a more limited direct audience, but who generate a lot of reaction since their messages are both approved retweeted in very high numbers.

From the analysis of the rankings, it is clear that the most prominent influencers in the whole sample are Gustavo Petro (Colombia) and Paul Krugman (United States), with more than four million followers each. Both present economic views that emphasize greater state intervention. They are followed by the two influencers with economic positions consistent with free and open markets: Rodrigo Constantino from Brazil, and Manuel Adorni from Argentina.

NAME	COUNTRY	Ranking by weighted index
Gustavo Petro	Colombia	1
Paul Krugman	Argentina	2
Rodrigo Constantino	Brazil	3
Manuel Adorni	Argentina	4
Martin Guzmán	Argentina	5
Alberto Garzón	Spain	6
Alfonso Prat Gay	Argentina	7
Ricardo Amorín	Brazil	8
Óscar Iván Zuluaga	Colombia	9
Miguel Gómez Martínez	Colombia	10
Martin Lusteau	Argentina	11
Xavier Sala-i-Martin	Spain	12
José Luis Espert	Argentina	13
Salim Mattar	Brazil	14
Axel Kaiser	Chile	15
Ricardo Lagos	Chile	16
Andrés Velasco	Chile	17
José Amoedo	Brazil	18
Juan Ramón Rallo	Spain	19

Table 2. Ranking of influencers by weighted index

C. Newbold, J.C. Rosiello, & R. Salinas, JEB, 8(4), 2021, p.203-218.

•	Journal of Leononnes Divilography	
Joseph Stiglitz	United States	20
Daniel Lacalle	Spain	21
Alejandro Bercovich	Argentina	22
Henrique Bredda	Brazil	23
Milei, Javier	Argentina	24
Ernesto Samper P.	Colombia	25
Cristián Larroulet Vignau	Chile	26
Steve Hanke	United States	27
Laura Carvalho	Brazil	28
Nouriel Roubini	United States	29
Gerardo Esquivel	Mexico	30
Santiago Niño-Becerra	Spain	31
Valeria Moy	Mexico	32
Clara López Obregón	Colombia	33
Roberto Cachanosky	Argentina	34
Eduardo Ruíz Healy	Mexico	35
Justin Wolfers	United States	36
Henrique Meirelles	Brazil	37
Sergio Negrete Cárdenas	Mexico	38
Larry Summers	United States	39
Cárdenas, Mauricio	Colombia	40
Enrique Quintana	Mexico	41
Guillermo Barba	Mexico	42
Macario Schettino	Mexico	43
Raphael Lima	Brazil	44
Isaac Katz	Mexico	45
Martín Tetaz	Argentina	46
Dani Rodrik	United States	47
Richard Thaler	United States	48
Luis Pazos	Mexico	49
Cecilia López Montaño	Colombia	50
Felipe Larraín	Chile	51
José Ramón Valente	Chile	52
Tyler Cowen	United States	53
Ertik Brynjolfsson	United States	54
José Piñera	Chile	55
Alfredo Sfeir Younis	Chile	56
Martin Redrado	Argentina	57
María del Rosario Guerra	Colombia	58
Pedro Fernando Nerv	Brazil	59
Alexandre Schwartsman	Brazil	60
Iván Marulanda	Colombia	61
José Carlos Diez	Spain	62
Oscar Mario Beteta	Mexico	63
Marcel Claude	Chile	64
Carlos Rodríguez Braun	Spain	65
Eduardo Garzón	Spain	66
Luis Garicano	Spain	67
Gonzalo Bernardos	Spain	68
Luis Larraín Arroyo	Chile	69
Andrés Villamizar	Colombia	70
	Colonibia	70

4. The influencers profile

The research undertaken made it possible to detect some general characteristics of the profile of the influencers across the universe of countries analyzed.

The first finding that stands out is that the vast majority of influencers are men, since out of the total 70 influencers analyzed, only four are women (and three of them from Colombia). A similar situation prevails among economics

professors from countries like the United States and for authors of the most recognized economics blogs (Khan, 2011).

The second notable finding that differs from tweeters in general is that economic influencers are from older generations, with an average age of 58 years old.

Their origin or profession is diverse. Many pursued (or pursue) academic activities (as in the United States, Mexico or Chile), or have emerged from business or consulting fields (common in Brazil). In other cases, they have developed a political career or acted in government (the list presented here includes two former presidents). Although many influencers occasionally write for newspapers, it is curious highlight the low number of influencers that come from full-time business or economics media journalists. For the sample analyzed here, our set of influencers have an average of 300,000 followers; and, in general, they post 5 to 10 original tweets per day, with an average of half a million approvals and 100,000 retweets.

In what follows, we analyze some characteristics of Twitter influencers from the countries analyzed.

Influencers in the United States have a high average age of 65. What stands out most about this case is that they come entirely from the university environment, where they have stood out for their contributions to economic science. Three of them have received the Nobel Prize in Economics: Paul Krugman (2008), Joseph Stiglitz (2001) and Richard Thaler (2017). Many of them have participated as advisers in Democrat administrations. Stiglitz, Larry Summers and Nouriel Roubini were members of The Council of Economic Advisers. Also, Summers held the top executive position in the entire group, as he was Clinton's Secretary of Treasury. Others have been oped columnists for major media outlets, such as Krugman, Justin Wolfers, and Tyler Cowen at the New York Times; Steve Hanke, in the past, was active in Forbes. All of these influencers have written several works on economic topics, from university textbooks to advanced contributions in journals and collection of essays, to texts for the general public (Pew Research Center, 2020). Those with a more academic focus include Erik Brynjolfsson, Cowen, Dani Rodrik and Thaler. The majority of these influencers advance a perspective critical of the free market point of view, of the lack of government and regulatory interventionism, and Republicans in general. Only two, Hanke and Cowen, can be considered straightforward defenders of capitalism; while two others, Thaler and Brynjolfsson, are indeterminate.

In Spain, the average age of influencers is 52. Half of them have obtained a doctorate: Xavier Sala-i-Martin, Luis Garciano, Gonzalo Bernardos, Juan Ramón Rallo and Carlos Rodríguez Braun. Alberto Garzón stands out as a tweeter, who, in addition to being the one with the most followers (more than one million), is also the one that generates the greatest impact. Some influencers on the list are involved in politics: Garzón as minister, and Garciano in the European legislature. Others have held managerial positions, or chaired business organizations, such as Daniel Lacalle and

Santiago Niño Becerra. And others are or have been consultants or advisers, such as Sala-i-Martin and Lacalle.

Influencers in Brazil have an average age of 52 years. Many of them come from the business world, such as Jose Amoedo, Salim Mattar, Henrique Bredda, Henrique Meirelles, Rodrigo Constantino and Alexandre Schwartsman. Some of the influencers have been active in politics or have held government positions, such as Amoedo, Mattar, Meirelles, and Laura Carvalho. Only the latter appears strongly linked to the university. The influencer with the most followers is Ricardo Amorim with 1.4 million. Amorín appears frequently on television, is also a prolific op-ed columnist, and has his own business consulting firm dedicated to economic, financial and strategic issues.

Mexican influencers have an average age of 59 years. All are characterized by being highly recognized in national and international media outlets. Most of them have had experience as consultants for international financial or economic organizations, and as university professors. At the same time, they have held positions in the federal government, especially in areas such as Finance, Economy, Foreign Trade or in the private sector, mainly in banking. They have postgraduate studies at foreign universities: six of them have completed doctoral studies and four have master's degrees. They have produced numerous books, research articles or opinion articles on political, economic, and social issues in Mexico, and the world³.

In Argentina the average age of influencers is 50 years. All of them completed undergraduate careers in the country and some of them did postgraduate studies (generally M.A.) abroad: Alfonso Prat Gay, Martín Redrado and Martín Guzmán were trained in the United States, while Martín Lousteau did so in Europe. Due to his activity on Twitter, Manuel Adorni stands out as the influencer who receives most interactions on his account. Four of these influencers (Martín Lousteau, Guzmán, Redrado and Prat Gay) have come to occupy public positions, as senators, congressmen, cabinet members or heads of the Central Bank. Although three of them (José Luis Espert, Javier Milei and Roberto Cachanosky) have entered politics recently, their original profession is that of economic consultants. The same applies to Adorni and to Martín Tetaz. Among the influencers of Argentina, only Guzmán -current Minister of Economy- comes from a strictly academic field.

Chilean influencers, with an average age of 64 years, have done most of their postgraduate education in the United States. Four have received doctorates in economics (Andrés Velasco, Ricardo Lagos, Felipe Larraín, José Piñera) and three have completed master's programs (Cristian Larroulet, Alfredo Sfeir and José Valente). Two others have postgraduate degrees in Europe: Axel Kaiser (Ph.D) and Marcel Claude (M.A.). This comparatively

³ One of the Mexican influencers, Gerardo Esquivel, has been classified as having an indeterminate perspective, given the content of the Twitter pages issued within the period considered here. Esquivel could be classified as +State or "leftist" given his previous public appearances. These have been much more moderate in recent times, most likely due to his current position as Under-Governor of de Banco de México.

high level of international training has led most to develop an active local and international university life. Almost all of them have published extensively and have also served as consultants. Some have been engaged in political activity and have held important government positions: Lagos has been president of Chile, while Velasco, Larraín, Larroulet, Piñera and Valente have held Ministry positions across various administrations.

In Colombia, influencers have an average age of 64 years. Some of them have completed their postgraduate degrees at European universities, such as Petro and Oscar Zuluaga, while Mauricio Cárdenas, Andrés Villamizar and María del Rosario Guerra have obtained doctorates or master's degrees from universities in the United States. Clara Obregón, in turn, studied at Harvard University. Petro stands out prominently as a twitter influencer, with the largest number of followers -four million- in Latin America. Apart from having held political positions, Petro was also a guerrilla member⁴. All Colombian influencers have participated in politics, and most have held high positions, as senators, mayors, and cabinet positions. Many of them have held managerial positions or chaired business organizations, such as Zuluaga, Iván Marulanda and Miguel Gómez Martínez. Thise who have developed a university career include Samper (who was President of Colombia), Cárdenas, Guerra and Gómez Martínez.

5. Identification of the *economic orientation* of influencers

Our analysis of the messages on Twitter yields some surprising results. In the community of economic influencers, where many belong to the academic world, the nature of debate in not cold and calculating, based solely on empirical or scientific evidence. Rather, it resembles discussions based on pre-established positions. Hence, interactions on Twitter do not seem to promote, in general, an open exchange of ideas, but rather a re-affirmation of pre-conceived positions. A clear example of this is Paul Krugman, who began his journey as a recognized academic researcher, making important contributions to economic theory. But, as his participation in social media began to grow, he gradually mutated into a preacher of very partisan perspectives, with positions systematically opposed to the Republican Party (The Economist, 2003; Mallaby, 2020). A very similar case is that of Stiglitz, also a Nobel Prize winner and with distinguished recognition as university professor, who now defends highly "heterodox" causes, including policies of the illiberal populist governments of Venezuela and Argentina (Epstein, 2018). The theoretical positioning of the main influencers on economic issues is highly polarized, which becomes evident when the issues under debate are scrutinized. To facilitate our analysis (and begging any questions) we have chosen to distinguish the opposite points of view as simply "in favor of

⁴ His heterogeneous background makes him difficult to compare to the other influencers.

open markets" (+Market) versus "in favor of greater State intervention" (+State)⁵.

Based on the analysis of the content published in the tweets of each influencer, the following list was constructed with the ten most frequent economic topics on social media⁶. The topics are arranged in such a way that the first five are related to a pro-free market perspective, while the last five cover economic thinking more in favor of more state intervention.

- 1. Against: the increase in the size of the State, and its inefficiency, the increase in public spending, the increase in fiscal deficits, the increase in public employment, the increase in taxes.
- 2. Against: regulation in general, labor regulations, exchange rate regulations, lack of competition and obstacles to the free market.
- 3. Criticism: to the left, socialism, populism in general and in Latin America.
- 4. In favor of liberalizing international trade.
- 5. Danger of inflation and unrestricted money supply expansions.
- 6. Criticizes inequality / in favor of income redistribution / needs to improve pension payments.
- 7. In favor of limiting international trade.
- 8. Criticism of "neoliberal" policies and capitalism.
- 9. In favor of economic regulation, state intervention / against the free market.
- 10. In favor of / greater size of the State / subsidies / social plans / public employment / public spending / increase in taxes / public health / public education.

Based on this list, we analyzed the contents of around a hundred tweets from each influencer, assigning the one of the above categories to each, where applicable⁷. We then obtained the percentage values of each topic for each influencer. This procedure made it possible to obtain the prevailing economic profile or perspective of each of the influencers under analysis.

Based on these results, influencers were categorized as described in Table C. To do this, we proceeded as follows: for each influencer, the reported results correspond to the sum of the percentages of the first five categories or economic topics. Those who obtained a score of 66.6% or more were labeled as *+Market*, and those who obtained 33.3% or less, as *+State*. The remaining middle segment were classified as *Center*.

⁵ Usually, statist influencers do not present a frontal rejection of capitalism, but rather continually mark the need to substantially modify or "correct" its operation.

⁶ Given that a specific period was analyzed (December 2019), the results may be biased by particular topics that were relevant at that time.

⁷ In other words, tweets that did not deal with economic issues were not considered.

Table 3. Economic perspective of influencers.

NAME Custava Patra	COUNTRY	Economic Perspective
Gustavo Petro	Colombia United States	+ State
Paul Krugman		+ State
Rodrigo Constantino Manuel Adorni	Brazil Argentina	+ Market + Market
Martín Guzmán	Argentina	+ State
Alberto Garzón		+ State
	Spain A recenting	+ Market
Alfonso Prat Gay, A Ricardo Amorin	Argentina Brazil	+ Market
,	Colombia	+ State
Óscar Iván Zuluaga Miguel Cómez Martínez	Colombia	+ Market
Miguel Gómez Martínez Martín Lusteau		Center
Xavier Sala-i-Martin	Argentina	+ Market
	Spain A recenting	+ Market
Espert, José Luis Salim Mattar	Argentina Brazil	+ Market
Axel Kaiser	Chile	+ Market
	Chile	+ State
Ricardo Lagos Andrés Velasco	Chile	+ State + Market
Jose Amoedo Juan Ramón Rallo	Brazil Spain	+ Market
Juan Ramón Rallo Jacoph Stiglitz	Spain United States	+ Market
Joseph Stiglitz Daniel Lacalle	United States	+ State + Market
	Spain	
Alejandro Bercovich	Argentina Brazil	+ State + Market
Henrique Bredda		
Javier Milei Erneste Samner P	Argentina Colombia	+ Market + State
Ernesto Samper P. Cristián Larroulat Vianou	Colombia	+ State + Market
Cristián Larroulet Vignau		
Steve Hanke Laura Carvalho	United States Brazil	+ Market + State
Nouriel Roubini	United States	+ State
	Mexico	Center
Gerardo Esquivel Santiago Niño Bacorra		+ State
Santiago Niño-Becerra	Spain Mária	
Valeria Moy Clara Lánas Obrastán	México	+ Market
Clara López Obregón Roberto Cochanocky	Colombia	+ State + Market
Roberto Cachanosky	Argentina Mexico	+ Market
Eduardo Ruíz Healy		
Justin Wolfers	United States	+ State
Henrique Meirelles	Brazil Mexico	+ Market
Sergio Negrete Cárdenas		+ Market
Larry Summers	United States	+ State
Mauricio Cárdenas	Colombia	+ Market
Enrique Quintana Guillermo Barba	Mexico Mexico	+ Market + Market
Macario Schettino	Mexico	+ Market
Raphael Lima	Brazil	+ Market + Market
Isaac Katz	Mexico	
Martín Tetaz	Argentina	+ Market
Dani Rodrik	United States	+ State
Richard Thaler	United States	+ Market
Luis Pazos	Mexico	+ Market
Cecilia Lopez Montaño	Colombia	+ State
Felipe Larraín	Chile	+ Market
José Ramón Valente	Chile	+ Market
Tyler Cowen	United States	+ Market
Ertik Brynjolfsson	United States	Center
José Piñera	Chile	+ Market
Alfredo Sfeir Younis	Chile	+ State
Martin Redrado	Argentina	+ Market
María del Rosario Guerra	Colombia	+ State
Pedro Fernando Nery	Brazil	+ State
Alexandre Schwartsman	Brazil	+ Market
Iván Marulanda	Colombia	+ State

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José Carlos Diez	Spain	+ Market
Oscar Mario Beteta	Mexico	+ Market
Marcel Claude	Chile	+ State
Carlos Rodríguez Braun	Spain	+ Market
Eduardo Garzón	Spain	+ State
Luis Garicano	Spain	+ Market
Gonzalo Bernardos	Spain	+ State
Luis Larraín Arroyo	Chile	+ Market
Andrés Villamizar	Colombia	+ Market

Then, for each of the selected topics, the percentage averages for each country was calculated. This is shown in Table D.

Table 4. Average distribution of the topics covered by the influencers (in percentage, each influencer with the same weight).

Topic	ARGENTINA	COLOMBIA	SPAIN	BRAZIL	UNITED STATES	CHILE	MEXICO	AVERAGE
Criticizes / state size / public spending / fiscal deficit inefficiency / public employment / tax increase	0,42	0,12	0,25	0,34	0,09	0,12	0,28	0,23
Criticism of regulation in general, labor regulations, regulation exchange rate, lack of competition and obstacles to the free market	0,16	0,16	0,09	0,30	0,12	0,25	0,26	0,19
Criticizes / the left / socialism / populism in general and of LATAM.	0,03	0,07	0,25	0,07	0,03	0,17	0,25	0,13
In favor of freeing international trade	0,01	0,00	0,00	0,03	0,08	0,18	0,09	0,06
Criticize Monetary Issuance and Inflation	0,12	0,00	0,06	0,03	0,04	0,00	0,07	0,05
Criticize Inequality / in favor of income redistribution / Regional transfers	0,06	0,04	0,05	0,15	0,14	0,07	0,02	0,07
In favor of limiting international trade	0,03	0,02	0,01	0,00	0,02	0,02	0,01	0,01
Criticism of neoliberal policies, capitalism and the right	0,02	0,07	0,05	0,02	0,03	0,05	0,00	0,03
In favor of economic regulation / State intervention / against the free market	0,03	0,28	0,13	0,00	0,17	0,06	0,00	0,10
In favor / larger size State / subsidies / social plans / public employment / public spending / tax increase / public health / public education	0,11	0,26	0,11	0,05	0,28	0,09	0,01	0,13

On average, we can immediately highlight that the topics dominating posted tweets are those that criticize or propose a greater measure of government intervention and regulation in the economy. The position of influencers against state intervention is greater in Argentina and Brazil. The opposite occurs in Colombia and the United States. Other issues that appear with less importance are views on the expansion of money supply and of

inflation; although this topic, not surprisingly, appears with much greater noticeability in Argentina, a nation that has endured the largest increase in its price index throughout the region, only after Venezuela. Criticism of the position favoring greater state intervention and economic populism is manifested prominently (and relevantly) in Spain and Mexico; while in Brazil and the United States, the main topic of discussion centers on the negative effect of an unequal income distribution. It is surprising that issues related to global trade are not mentioned much, given its role as a driver of world growth. The exceptions are Chile and Mexico, where mentions favorable to open trade are common.

The importance given to each subject by country is presented in Table D.

At the national level and in terms of a weighted average, Mexico stands out of the country with the largest number of influencers in favor of the free market, with a score of 96 (out of 100). The second place is occupied by Brazil with 79, followed by Argentina, with 75. Then comes Chile with 72, and Spain with 65. On the other hand, countries far more oriented to a perspective in favor of state intervention are the United States with 36 and Colombia with 34.

Table E shows the results by country, adding the first five categories on one side, and the last five on the other.

Topics	ARGENTINA	CHILE	COLOMBIA	SPAIN	BRAZIL	MEXICO	UNITED STATES
Criticizes / size of the State / public spending / fiscal deficit / inefficiency / public employment / tax increase							
Criticizes regulation in general, labor regulations, regulation exchange rate, lack of competition and obstacles to the free market	75.00%	72%	34%	65.18%	76.89%	96%	36.25%
Criticizes / the left / socialism / populism in general and LATAM					L	I	
In favor of freeing international trade	-						
Criticizes Monetary Emission and Inflation	-						
Criticizes Inequality / in favor of income redistribution / Coparticipation							
In favor of limiting international trade							
Criticism of neoliberal policies, capitalism and the right							
In favor of economic regulation / State intervention / increase of social plans / against the free market	25.00%	28%	65.62%	34.82%	23.11%	4.00%	63.75%
In favor of / larger size of the State / subsidies / social plans / public employment / public spending / tax increase / public health /							
Total	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

Table 5. Average distribution of the topics covered by the influencers (in percentage, each influencer with the same weight)

Table F presents the same grouping of categories as in Table D, identified by their orientation **+Market** / **+State**. In column I (influencer) the percentages of Table D are replicated, while in column S (followers) each of the themes of each influencer is weighted by the number of his followers, to then obtain the weighted averages by country. It is clear that in all countries -save for Brazil and Mexico-, for the themes in favor of the open markets (**+Market**), column I is greater than column S, which implies that the followers of themes in favor of greater intervention are proportionally more numerous per influencer. The most extreme cases are the United States and Colombia. This is very probably because these countries have superinfluencers in favor of greater state intervention, such as Krugman and Petro, which with their weighted input alone tips the balance in the indicated direction.

Topic	Argen	tina	Ch	ile	Color	nbia	Spa	in	Braz	zil	Me	kico	United	States
_	Ι	S	Ι	S	Ι	S	Ι	S	Ι	S	Ι	S	Ι	S
+Market	0,75	0,69	0,72	0,67	0,34	0,09	0,65	0,52	0,77	0,92	0,96	0,98	0,36	0,12
+State	0,25	0,31	0,28	0,33	0,66	0,91	0,35	0,48	0,23	0,08	0,04	0,02	0,64	0,88

Table 6. Average distribution of topics by influencer (I) and by followers (S).

If all the influencers are grouped by their positioning in economic terms, we observe the following percentages: **+State** 31% and **+Market** 59%, with the remaining 10% belonging to **Center.** If the followers revealed the same economic positioning as their influencers, the pro-market proportion would represent 37% of the total of followers, and with the anti-market or pro-state group at 56%. In other words, pro-market influencers exist in greater numbers, but with a smaller total number of followers.

The economic mindset or mentality of the universe of Twitter users can be compared to the same economic mentality of the general population (per country), using the recently released GIEM 2020 - Global Index of Economic Mentality 2020 (Lips *et al.*, 2020). In this index, of the countries analyzed in this essay, the United States is the country that shows the greatest appreciation for a free market economy, followed by Colombia. At the end, with low values, we find are Argentina and Chile.

It is surprising, therefore, that it is the former two countries that generate predominantly "anti-capitalist" influencers, whereas we find an opposite situation with the latter.

Comparing the results obtained in this study and the Global Index of Economic Mentality, it seems that there tends to be an inverse correlation between the economic positioning of the main Twitter influencers in each country, and the prevailing economic mentality in that same country. In turn, for each country, there appears to be a positive correlation between the intensity of its positioning and the number of tweeters of the opposite viewpoint. This working hypothesis can be a research project to be developed in the future.

6. Conclusions

The analysis carried out in this work has made it possible to detect the influencers on the Twitter platform that have the greatest impact on debates surrounding economic issues.

Some findings are:

- 1. The influencers on economic issues are mostly males of relatively older age. Their main occupations include university teaching, having held government positions and belonging to the private sector, such as members of business organizations, or consultants.
- 2. At the national level, the United States and Colombia are dominated by influencers in favor of greater state intervention. This is surprising given that the general population in these countries is relatively favorable to a freer market mindset. In the rest of the countries, which have populations with mentalities more oriented towards greater state intervention, the influencers tend to be in favor of the free market.
- 3. The topics that generally dominate tweets are those related to the size of the State, and economic regulation.
- 4. The rankings presented here are useful to highlight those influencers of greater weight, who in their messages reflect the interests of a significant part of public opinion.
- 5. If influencers merely respond in their perspectives to their audiences, it could be assumed that their social impact is zero. We do not believe that this is the case, since in their activity influencers offer information, often presented as academic and scientific, in favor of their positions. This evidence reinforces and strengthens existing prejudices and provides new arguments to defend or disseminate a certain point of view. On the other hand, influencers facilitate the organization and actions of people with similar perspectives that can then be transformed into mass personal demonstrations on social media, which will tend to affect the decisions of politicians, government agents and social actors in general.

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