UNIVERSITÀ DEGLI STUDI DI MILANO-BICOCCA

Master's Degree in Data Science



Deterioration of Nicaragua's Democracy

Nicaragua, a Central American nation, now faces a deep political crisis. Ortega has dismantled democracy, while China and Russia keep a close watch. Is Nicaragua yet another case in a broader global pattern of democratic decline?

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Introduction

The aim of this research is to analyze, through an exploratory study of data provided by Freedom House, the dynamics and causes behind the transformation of Nicaragua's political and social system, from a status of "Partly Free" to one classified as "Not Free".

Nicaragua, a Central American country with a complex history characterized by colonization, internal conflicts, revolutions and foreign interventions, was chosen as the focus of this study because, according to the data provided by *Freedom House*, it emerged as the country that experienced the strongest decline in democracy worldwide during the period considered (2013-2025).

The state of democracy in countries around the world is becoming an increasingly important topic to analyse and monitor, as democratic freedom worldwide is currently facing a deep crisis. Powerful economic and political forces increasingly jeopardize democracies, especially the weaker ones. Since World War II, despite the illusion of peace, conflicts have continued around the world. Today, there are 56 wars of different scale and intensity, involving more than 92 countries, Italy included. Rising border tensions and the weakening of the global order create an environment where autocracies often replace democracies.

The paper begins with a brief historical overview that includes the colonial period, U.S. interventions, the Somoza dictatorship, the Sandinista revolution, and the return to power of Daniel Ortega. Under Ortega, Nicaragua has seen growing repression, weakening of democratic institutions, media control, electoral manipulations, and an increasingly pronounced authoritarianism.

Using the *Freedom in the World* dataset provided by *Freedom House*, the significant democratic decline in Nicaragua between 2013 and 2025 was analyzed. The dataset offers annual freedom scores (ranging from 0 to 100) for each country based on Political Rights and Civil Liberties, classifying countries as *Free*, *Partly Free*, or *Not Free*. In 2025, Nicaragua scored just 14 out of 100, ranking as "Not Free". After an initial improvement between 2014 and 2016, with gains in quality of life, a rapid deterioration is observed after 2016, accelerating especially from 2018, the year of Ortega's fourth election characterized by major protests and subsequent repression.

The detailed analysis shows that the most affected areas are *freedom of expression and belief* and the *electoral process*, both with a drop of about 50-60% of their maximum possible score. In fact, the media are entirely controlled by Ortega's family, independent journalism is systematically persecuted and religious freedom is under increasing repression. While regarding the electoral process, Ortega has progressively dismantled democratic institutions since returning to power in 2007 through manipulated elections, constitutional changes and the concentration of power in his own hands and those of his wife.

Subsequently, an analysis was conducted to compare Nicaragua's decline in freedom with that of other "Not Free" countries. Unlike the gradual declines observed in countries such as Cuba or Russia, Nicaragua's regression occurred rapidly, particularly after 2018. Statistical analysis confirms that this decline is highly unusual, exceeding three standard deviations below the average, highlighting Nicaragua as an exceptional case of rapid democratic backsliding among authoritarian regimes.

Afterward, a parallel trend was highlighted between Nicaragua's democratic decline and its growing ties with major global powers such as China and Russia. The relationship with China principally involves infrastructure, with ambitious projects, and the economic sphere, as many Chinese companies have spread throughout the country. In 2023, China and Nicaragua also signed a free trade agreement, which further solidified Nicaragua's economic dependence on Beijing. Russia has also increasingly

strengthened its alliance with Ortega's government in Nicaragua, posing a significant risk to democracy in the region. The Kremlin has established one of Latin America's largest cyber-surveillance centers in Nicaragua and gained permanent observer status in the Central American Parliament in 2024.

The democratic deterioration experienced by Nicaragua is not an isolated case. In recent years, a global trend of declining freedom has been observed, affecting both political rights and civil liberties. Between 2013 and 2025, approximately 73% of countries experienced a decrease in their level of freedom, with a statistically significant and moderately sized decline. Finally, it has been statistically demonstrated that this phenomenon is more pronounced in already vulnerable nations, while countries classified as "Free" show a smaller decline.

1. Historical Overview

To analyse Nicaragua's democracy trajectory a historical overview is necessary. The country's history is marked by indigenous civilizations, Spanish colonization and periods of both internal conflict and foreign intervention and occupation.

After the arrival of Christopher Columbus in 1502, it became part of the Spanish colonial empire. In 1821 it declared independence, joining at first the First Mexican Empire, soon becoming part of the Federal Republic of Central America; internal conflicts led to full independence in 1838.

Independence was interrupted in 1912 by a U.S. occupation aimed at supporting forces opposed to President José Santos Zelaya. The resistance led by General Augusto C. Sandino forced the withdrawal of U.S. troops in 1933, but shortly afterward the head of the National Guard, Anastasio Somoza García, ordered Sandino's assassination and established a family dictatorship that lasted until 1979. The Somoza era was characterized by economic development, albeit with rising inequality and political corruption, strong U.S. support for the government and its military.

In the 1960s, the Sandinista National Liberation Front (FSLN) emerged and began a campaign of kidnapping, followed by riots and strikes, which resulted to be very effective in 1978; revolts against the state and guerrilla warfare continued. In June 1979 the movement after a successful urban offensive had control over all the state except for the capital; on 17 July, Somoza resigned and then ceded control to the revolutionary movement.

Nicaraguan revolution brought restructuring to all sectors of the economy with an important agrarian reform which matched revolution principles: pluralism, national unity and economic democracy. The Nicaraguan Literacy Campaign brought cultural developments, dropping the illiteracy rate from 50% to 12% in just 5 months.

At the same time, Amnesty International after visiting on 20 July 1980 was "concerned primarily with the trials of individuals detained for alleged crimes under the former government and with the new court system".

During this period, the Reagan Administration sought to isolate the Sandinista regime both economically and politically. Nicaragua also faced the Contra movement, composed in part of former members of Somoza's National Guard. In late 1981, the United States authorized covert support for the Contras. This initiative later became entangled in the Iran–Contra affair, which involved the clandestine sale of U.S. weapons to Iran to fund the Contra insurgency. The scandal was exposed in 1986, triggering intense public scrutiny and congressional investigations. With the cessation of U.S. support, a first peace agreement was reached in 1988, and the Sandinistas' defeat in the 1990 elections marked a decisive turning point.

FSLN leader Daniel Ortega had previously won the 1984 elections with 67% of the vote. However, in 1990 the party lost power to opposition candidate Violeta Chamorro, followed by the presidencies of anti-Sandinista leaders Arnoldo Alemán in 1996 and Enrique Bolaños in 2001.

In 2006, Ortega won the presidential elections for his second mandate and began pursuing a policy of power centralization, repression and persecution of political opponents, laying the foundations for an autocratic state.

2. Ortega's Era

2.1 Ortega's second mandate

Ortega returned to the presidency supported by the campaign efforts of his wife, Rosaria Murillo campaign, talking about his commitment to "Christianity, Socialism and solidarity" speaking to religious groups; to strengthen his position, days before the elections he refused to oppose a complete ban on abortion, a law still in place in 2025.

Following his return to power in 2006 Ortega started a policy of repression of political opposites and of centralization of power in his hands. In 2009 Nicaragua's Supreme Court removed constitutional obstacles to allow Ortega to stand for another term - a move the opposition condemned as illegal; other constitutional moves happened in 2014, to allow him to run for the third consecutive mandate in 2016.

Democratic decline intensified with his third mandate, in 2011; during elections CSE blocked national and international election observers from a lot of polling stations.

2014 marks an important date, as FSLN passed constitutional amendments that abolished term limits on presidency, allowing a president to run for unlimited terms, also giving Ortega exclusive power to designate military and police commanders.

Despite the increasingly authoritarian nature of his rule, Ortega retained a degree of popularity due to a measurable reduction in poverty between 2009 and 2014. However, since 2016 he has also expanded his control over the media, personally owning three of the country's nine television channels, exerting influence over a fourth, while four of the remaining five are owned by Ángel González, a media magnate aligned with the FSLN. This near-total control over broadcast media has severely undermined freedom of expression in Nicaragua.

2.2 Descent to Dictatorship

In April 2018 demonstrations were held to oppose increasing taxes and reducing benefits in the pension system, spreading through the country reflecting many grievances; from this period are documented at least 19 dead and over 100 missing in the conflict. The greatest march in opposition to the party was held on 24 April 2018; students as well made a public announcement asking for a dialogue due to the recent events of repression. Deaths in the month of May were estimated to be at least 63, many of them student protesters, and 400 wounded. This violent campaign led to diminished civil liberties and massive waves of migration to Costa Rica.

During the first months of the crisis the government granted access to international bodies for human rights, however by the end of 2018 withdrew permission. As shown in Amnesty International reports

freedom of expression and peaceful assembly were met with violent repression combined with unfair trials in the peak of the crisis; to this day arbitrary detentions persist.

In 2020 the government, still facing the crisis opened in 2018 and isolated from other countries, decided to ignore international health recommendations to face the COVID-19 pandemic with a very serious situation especially in the context of an overcrowded and unsanitary prison system.

Political repression intensified in 2021, with the incarceration of most of the possible presidential candidates, persecuting a lot of his opponents. In recent years, Ortega has pursued a policy of repression, closing down ONGs, undermining the right to the press and persecuting his opponents.

A historic constitutional reform took place in January 2025, when Ortega and his wife, Vice President Murillo, assumed the role of co-presidents and extended the constitutional mandate from five to six years. This move paved the way for a political dynasty. In response, both the United Nations and the European Parliament labelled Nicaragua an autocratic state devoid of independent institutions, condemning its authoritarian trajectory.

These political developments are clearly reflected in Nicaragua's Freedom House scores, which illustrate the extent of the country's democratic backsliding over the last decade.

3. Exploratory Analysis of Freedom House Dataset

Freedom House is a nonprofit organization based in Washington, D.C., best known for political advocacy surrounding issues of democracy, political freedom and human rights.

Since 2013 each year they collect data aiming at giving a score to each country determining its political and civil status, overall determining their democratic state.

Each country can generally obtain a score between 0 to 100 points, which are the sum of the evaluations obtained in two macro areas: political rights (from 0 to 40) and civil liberties (from 0 to 60).

While political rights (PR) primarily concern the ability of citizens to participate freely in the political process through elections, pluralism and government accountability, civil liberties (CL) focus on the protection of fundamental freedoms such as expression, association, rule of law and individual autonomy.

Both political rights and civil liberties scores are assessed by summing up the points obtained to several questions, all of which span from 0 (smallest degree of freedom) to 4 (highest degree of freedom).

The combined total determines a country's overall status - Free (F), Partly Free (PF), or Not Free (NF) - according to the classification table presented below.

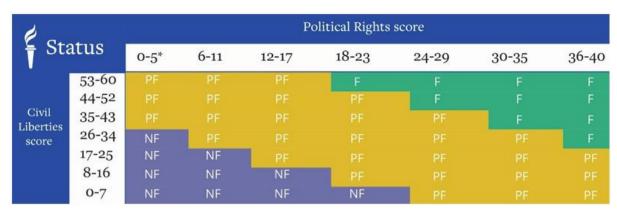


Figure 1 - Classification table of status

Political rights questions are grouped in sections, each containing 3 or 4 questions:

- electoral process (area A):
 - Was the current head of government or other chief national authority elected through free and fair elections?
 - Were the current national legislative representatives elected through free and fair elections?
 - Are the electoral laws and framework fair, and are they implemented impartially by the relevant election management bodies?
- political pluralism and participation (B):
 - Do the people have the right to organize in different political parties or other competitive political groupings of their choice, and is the system free of undue obstacles to the rise and fall of these competing parties or groupings?
 - Is there a realistic opportunity for the opposition to increase its support or gain power through elections?
 - Are the people's political choices free from domination by forces that are external to the political sphere, or by political forces that employ extrapolitical means?
 - Do various segments of the population (including ethnic, racial, religious, gender,
 LGBT+, and other relevant groups) have full political rights and electoral opportunities?
- functioning of government:
 - Do the freely elected head of government and national legislative representatives determine the policies of the government?
 - Are safeguards against official corruption strong and effective?
 - Does the government operate with openness and transparency?
- at last this group contains a supplementary section, which can subtract some points; it
 addresses if the government or the occupying power is deliberately changing the ethnic
 composition of a country or territory as to destroy a culture or tip the political balance in favor
 of another group; this question can score points from -3 to 0.

Civil liberties are divided into:

- freedom of expression and belief (D):
 - Are there free and independent media?
 - Are individuals free to practice and express their religious faith or nonbelief in public and private?
 - Is there academic freedom, and is the educational system free from extensive political indoctrination?
 - Are individuals free to express their personal views on political or other sensitive topics without fear of surveillance or retribution?
- associational and organizational rights (E):

- o Is there freedom of assembly?
- Is there freedom for nongovernmental organizations, particularly those that are engaged in human rights— and governance related work?
- Is there freedom for trade unions and similar professional or labor organizations?
- rule of law (F):
 - o Is there an independent judiciary?
 - Does due process prevail in civil and criminal matters?
 - Is there protection from the illegitimate use of physical force and freedom from war and insurgencies?
 - Do laws, policies, and practices guarantee equal treatment of various segments of the population?
- personal autonomy and individual rights (G):
 - Do individuals enjoy freedom of movement, including the ability to change their place of residence, employment, or education?
 - Are individuals able to exercise the right to own property and establish private businesses without undue interference from state or nonstate actors?
 - Do individuals enjoy personal social freedoms, including choice of marriage partner and size of family, protection from domestic violence, and control over appearance?
 - Do individuals enjoy equality of opportunity and freedom from economic exploitation?

The dataset covers the years between 2013 to 2025, except for Russian-Occupied territories of Ukraine, Puerto Rico, Eastern Donbas, Crimea and Nagorno-Karabakh, as for some years information was not gathered or - as for Russian-Occupied territories of Ukraine - they were considered after some specific events occurred. However, for all given years each question is associated with a score.

This methodology combined with the high quality dataset provided helps address real rights and freedoms enjoyed by individuals, considering both laws and actual practices in scoring decisions.

These foundations allow us to analyze how Nicaragua's scores evolved over time, highlighting the dynamics of democratic backsliding under Ortega's rule.

4. Analysis of Democratic Backslide in Nicaragua

Our study on Nicaragua's democracy starts from the analysis on data collected trying to give a score on its political rights and civil liberties on different topics.

As seen before Nicaragua's history has been turbulent since centuries, between occupations and aggressive oppositions, leading to an unstable position on personal, civil, political freedom; in 2025 it marks a score of 2 on 40 for political rights and of 12 on 60 for civil liberties, obtaining an overall of 14 on 100 on the Freedom House annual report of 2025.

Compared to the global average score of around 57 out of 100 in 2025, Nicaragua's total highlights an extreme democratic decline, placing it among the least free states worldwide.

As the dataset contains information from 2013 to 2025 of each country it gives an historical overview of how Nicaraguan situation changed over the last decade. Here are shown PR, CL, their total and the associated status, where NF stands for "Not Free" and PF for "Partly Free".

Year	PR	CL	Total	Status
2025	2	12	14	NF
2024	4	12	16	NF
2023	5	14	19	NF
2022	5	18	23	NF
2021	10	20	30	NF
2020	10	21	31	NF
2019	10	22	32	NF
2018	12	32	44	PF
2017	14	33	47	PF
2016	19	35	54	PF
2015	19	35	54	PF
2014	19	35	54	PF
2013	17	34	51	PF

The first year here displayed a general growth in all scores, as Ortega managed to decrease the poverty rate and improve citizens quality of life; the score is maintained at the same level until 2016. The first big changes happened in 2016, in conjunction with the latest presidential elections, with a decline in the political rights score from 19 to 14, which resulted from years of power centralization and persecution of political opposers. The score dropped another 5 points as well in 2021.

In 2018 civil liberties' score dropped 10 points as peaceful protests regarding taxes and the pension system were violently repressed and continued to diminish till this day. This year represents a turning point in Nicaragua's modern history, as already noted in the historical overview and is reflected in Freedom House data with a steep drop - particularly in civil liberties - resulting in the country's reclassification from Partly Free to Not Free.

Table 1 - Classification table of status

4.1 Decline in scores for Political Rights and Civil Liberties

Ortega's return to power in 2006 had already initiated a process of democratic backsliding, marked by the concentration of all branches of government under his party's control, the restriction of fundamental freedoms, and pervasive corruption. These trends culminated in 2018, when the authorities' brutal crackdown on anti-government protests exposed the collapse of the rule of law as the regime moved decisively to suppress dissent.

Nicaragua is the country which experienced the biggest negative changes, with a loss of 37 points in the last 13 years and a loss of 40 points in the last 10, dropping to a total score of 14 in 2025.

The analysis of different sections constituting the two macro areas inspected (PR and CL) is impressive. Here are shown the negative percentage changes standardized by the maximum value each section can obtain for the two intervals 2013-2016 and 2022-2025, in order to display consistent changes not biased by temporary changes.

The normalized average changes show a clear pattern of deterioration across all areas, with varying degrees:

D	57.8%	
A	50%	
E	33.3%	
С	31.3%	
В	29.7%	
F	29.7%	
G	17.2%	

- area D (freedom of expression and belief): shows the largest decline, the score dropped by 57.8% of its maximum possible range.
- area A (electoral process): is shown a large decline of 50% relative to its overall maximum score.
- area E (rule of law) and C (functioning of government): have moderate declines of 33-31% indicating noticeable but less severe deteriorations.
- area B (political pluralism and participation) and F (associational and organizational rights): decline of 29.7%, showing a similar moderate level of worsening.
- area G (personal autonomy and individual rights): experience the smallest decline of circa 17%.

Table 2 - Percentage change 2013-2016 to 2022-2025 for sections

While the overall decline across all areas is significant, the deterioration is not evenly distributed. The most severe regressions occurred in freedom of expression and belief (area D) and the electoral process (area A). These two dimensions are the backbone of democratic life: the ability of citizens to express themselves freely and to choose their leaders through fair elections. Focusing on these sections helps explain not only the numerical decline in Nicaragua's Freedom House scores but also the concrete mechanisms through which Ortega's regime has dismantled democratic institutions. The following paragraphs examine these two domains in greater depth.

4.1.1 Freedom of Expression and Media Control

Freedom of expression and belief in Nicaragua faces severe repression. Ortega and his allies control official media: some outlets are owned by his sons, others by the media group Albavision. Independent journalism is systematically dismantled through censorship, intimidation, arrests, legal persecution, license revocations, and forced closures.

Since April 2018, at least 293 journalists have been forced into exile, continuing their work online despite harassment of their families. An example is *La Prensa*, a historic independent newspaper that, despite persecutions, the arrest of its journalists and a raid on its newsroom, has never stopped practicing journalism. Since 2021, its journalists have continued their work online with courage from exile, exposing injustices. For this reason, the United Nations agency for education, science, and culture (UNESCO) awarded its prestigious international press freedom prize to *La Prensa*. In response, the Ortega regime announced Nicaragua's withdrawal from the organization, accusing it of "honouring traitors".

Religious freedom has also been curtailed. Church leaders offering refuge to protesters in 2018 were targeted, culminating in the 2022 arrest of Bishop Rolando Álvarez, a prominent critical voice. Freedom House data confirm a steady decline in religious freedom indicators since 2018 (D2).

Academic freedom and the education system have similarly suffered. Teachers and academics are pressured to follow government guidelines, pro-FSLN materials are widespread in schools, and students are often compelled to participate in pro-government events. Between 2021 and 2023, 28 universities were shut down, reflecting a marked decline in freedom of education (D3).

The erosion of media independence, religious freedom, and academic autonomy jointly explains why freedom of expression stands out as the most heavily dismantled domain.

4.1.2 Electoral Process Decline

Regarding electoral processes, Ortega's government began undermining democratic processes immediately after his return to power, as reflected by a 50% decline in area A. In the 2006 elections, he regained the presidency by exploiting divisions among Liberals, securing only 38% of the vote, and soon consolidated his authority by repealing constitutional amendments and strengthening presidential powers at the legislature's expense. Alongside his wife, Rosario Murillo, his key political ally, Ortega also moved to suppress civil society groups, particularly those advocating for women's rights, political opposition, and independent journalism.

Electoral manipulation persisted in subsequent elections, with restricted observer access and widespread irregularities in 2008 and 2011. In January 2014, the FSLN-led National Assembly removed the ban on consecutive presidential terms and abolished runoffs, letting Ortega win with a simple plurality and rule by decree, while also appointing military and police commanders unilaterally. The 2025 constitutional reform further concentrated power in the hands of Ortega and Murillo, establishing a co-presidency, control over all branches of government, and citizen-monitoring forces, which many observers have described as a clear example of a "family dictatorship". Although presented as a measure to strengthen democracy, the reform undermines the separation of powers and consolidates authoritarianism, offering a bleak outlook for the country's already fragile democratic system.

4.2 Nicaragua vs Global Trends

Having shown how freedom of expression and the electoral process collapsed internally, we now assess Nicaragua's trajectory in comparative perspective.

To place Nicaragua's decline into a global perspective, we compared its trajectory to that of other countries within the "Not Free" category. Scatterplots of the standardized changes between 2013-2016 and 2022-2025 highlight Nicaragua's outlier position. In area D (freedom of expression), Nicaragua's decline of -0.578 relative to the maximum possible score places it far below the cluster of comparable countries, confirming that media control and repression of dissent are extreme even by authoritarian standards. In area A (electoral process), while Nicaragua is not the only country showing sharp deterioration, its trajectory still represents one of the clearest examples of a collapsed electoral system, with institutional safeguards entirely dismantled.

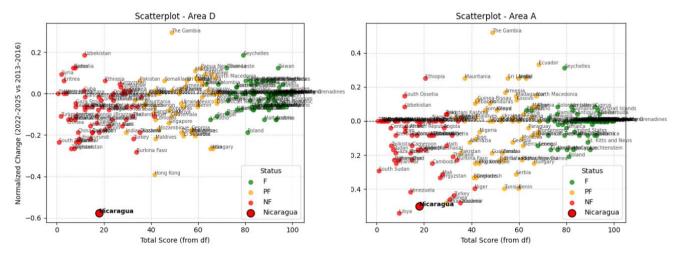


Figure 2 – Scatterplot of the standardized changes between 2013–2016 and 2022–2025 for Area D (Freedom of Expression) and Area A (Electoral Process).

Unlike other regimes such as Cuba or Russia where democratic rights eroded more gradually over decades, Nicaragua's regression occurred in an abrupt and concentrated time frame, especially after 2018. This collapse illustrates a different authoritarian dynamic: one where repression escalates suddenly, leaving almost no space for opposition forces to adapt or resist.

To test whether this pattern is unusual within the group of Not Free states, we computed a z-score on the distribution of changes in total Freedom House scores. Nicaragua's value of −3.66 indicates a decline that lies more than three and a half standard deviations below the mean of its peer group. Statistically, such a result corresponds to a probability of occurrence well below 1%, suggesting that Nicaragua's democratic collapse is not part of the "normal" authoritarian trajectory but an exceptionally rapid and extreme case of backsliding. This quantitative evidence reinforces the interpretation of Nicaragua as an authoritarian outlier whose regression exceeds typical patterns observed in comparable regimes.

5. Geopolitical Influences

Nicaragua's democratic decline is not just the result of internal politics. Since Ortega took power, his government has reached beyond national issues and embraced wider geopolitical strategies. By aligning more closely with authoritarian powers like China and Russia, the regime has created economic and political ties that are steadily weakening the country's democracy.

5.1 China's Strategic Alignment

In recent years, Nicaragua has developed a significant geopolitical alignment with China, marked by large infrastructure projects and growing economic dependence. A notable example is the 2014 announcement of the Gran Canal Interoceánico, a \$50 billion megaproject intended to provide an alternative to the Panama Canal. Although the initial project failed, Ortega's government later revived it, strengthening economic and trade ties with Beijing.

Beyond infrastructure, Chinese influence has extended into daily economic life, with the expansion of shops, supermarkets, and investments in construction, automotive, and logistics sectors. This alignment reached a milestone on August 31, 2023, with the signing of a Free Trade Agreement, further cementing Nicaragua's economic dependence on China.

While these ties bring trade and investment opportunities, they also raise concerns about the erosion of democracy: by relying on authoritarian powers, Ortega's government reduces accountability to domestic institutions and civil society, weakening democratic checks and balances and making the regime more resilient to internal and external pressures for reform.

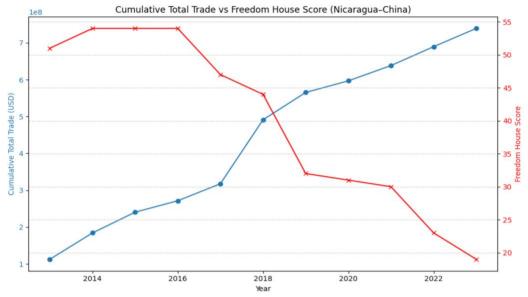


Figure 3 - Cumulative Total Trade between China and Nicaragua (2013-2023) versus Freedom House Score.

Figure 3 shows the cumulative Total Trade between China and Nicaragua and the Freedom House Score over the period 2013–2023, with data drawn from the UN Comtrade database for trade and from Freedom House for the democracy score. Cumulative Total Trade was calculated as the sum of exports and imports accumulated year by year (Cumulative Total Trade = Σ Export + Import), providing a running total of bilateral commercial exchanges.

The parallel between the two time series could suggest a correlation: average annual percentage changes show that before 2018, Total Trade decreased by an average of 13.46% while the Freedom House score declined by 1.77%. After 2018, Total Trade grew by an average of 35.58%, while the Freedom House score fell more sharply, by 13.46%.

These values suggest that an increase in trade with an authoritarian country like China may have contributed to the democratic decline in Nicaragua. However, the chart represents cumulative trade and does not establish a direct causal relationship. Further quantitative analysis could investigate the effect of these economic influences on democracy.

5.2 Russia's Strategic Alignment

Russia has strengthened its alliance with Nicaragua under President Ortega, raising significant risks to democracy in the region. The Kremlin has established one of Latin America's largest cyber-surveillance centers at the Mokoron military base, primarily managed by Russian personnel, enabling extensive monitoring of emails, phone calls, and social media. Economically, Russia provides substantial support through exports such as vaccines, industrial machinery, and steel wire, while Nicaragua exports goods like coffee and groundnuts. Trade data indicate that Total Trade between the two countries increased on average by 2.69% after 2018. The Freedom House score declined on average by 1.77% before 2018 and by 13.46% after 2018, reflecting a significant deterioration of democratic conditions. Trade volumes decreased in 2022, highlighting some volatility in the economic relationship. Politically, Russia gained permanent observer status in the Central American Parliament (PARLACEN) in 2024, further solidifying its influence. These developments embed Russia more deeply into Nicaragua's political landscape, increasing the regime's resilience against internal and external pressures. Overall, the growing dependence on Russia contributes to the weakening of democratic institutions and the consolidation of authoritarian governance under Ortega.

6. The Global Crisis of Democracy:

Contextualizing the Nicaraguan Case

Globally, we are witnessing a decline in the level of freedom across countries over the years, affecting both political rights and civil liberties (Figure 4).

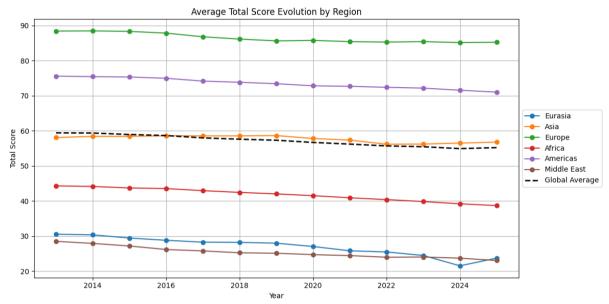


Figure 4 - Evolution of the Average Level of Freedom (Total Score), 2013-2025, by Region.

This trend is further evidenced by the fact that, in 2013, 44% of countries were classified as "Free", 30% as "Partly Free" and nearly 26% as "Not Free".

By 2025, data collected by Freedom House reveal a worrying change: approximately 32% of countries worldwide are now classified as "Not Free" and around 26% as "Partly Free" (Figures 5). This decline is even more pronounced in some regions. In Africa, half of the countries are classified as "Not Free," with only about 18% classified as "Free". In the Middle East, the situation is even more severe, with 80% of countries labelled "Not Free" and only 6.6% classified as "Free".

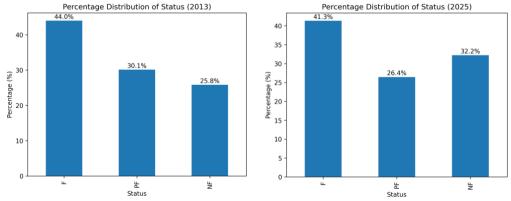


Figure 5 – Percentage of countries classified as Free (F), Partly Free (PF), and Not Free (NF) in 2013 and 2025, based on their levels of political rights and civil liberties.

In fact, as shown in Figure 6, between 2013 and 2025, 72.95% of countries saw a decrease in their level of freedom, while only 27.05% experienced an increase. However, it's important to note that not all countries with an increase became truly free, some started from very low levels and still remain far

from being free today. For instance, the level of freedom (Total) in Uzbekistan went from 4 to 12 out of 100, and Iraq from 24 to 31. So, even though both countries have seen an increase in their freedom levels, they are still classified as "Not Free".

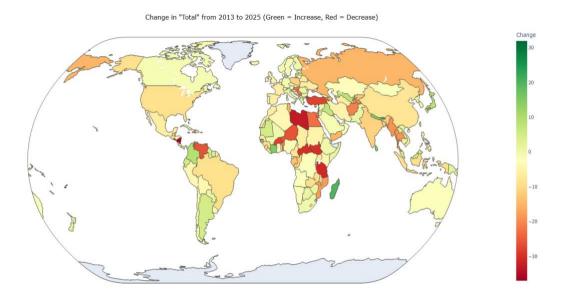


Figure 6 – Map of changes in countries' total freedom scores between 2013 and 2025. Shades of red represent declines in freedom, with darker shades indicating larger decreases; shades of green represent improvements, with darker shades indicating greater gains.

The descriptive intuition of democratic backslide that emerges from the exploratory analysis, however, needs to be substantiated in order to determine whether the deterioration in the level of freedom over time is a statistically significant trend rather than the result of random fluctuations in the data.

To this end, a statistical hypothesis test was carried out to compare the two samples. The first sample consists of the Total scores for all available countries (209), during the initial observation period. Rather than using a single year, which could be overly sensitive to year-specific fluctuations, we chose a three-year interval (2013-2015) to obtain a more robust and representative estimate of the average level of democracy at the beginning of the time series. The second sample is constructed in the same way, covering the most recent three-year period available (2023-2025).

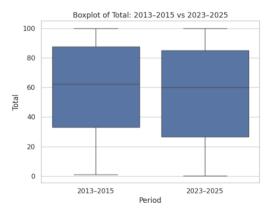


Figure 7 – Boxplot of total freedom scores for the periods 2013–2015 and 2023–2025.

By observing the boxplots (Figure 7) of the two samples, it is possible to observe that the median level of freedom was higher in the initial period than in the more recent one. This suggests a decline over time. However, since visual inspection alone is insufficient to confirm statistical significance, a formal hypothesis test was conducted.

Since we are comparing the same countries over two time periods, we use paired-sample hypothesis testing. The hypotheses are as follows:

$$H_0$$
: $\mu_{post} = \mu_{pre}$ (no significant change)
 H_1 : $\mu_{post} < \mu_{pre}$ (significant decline)

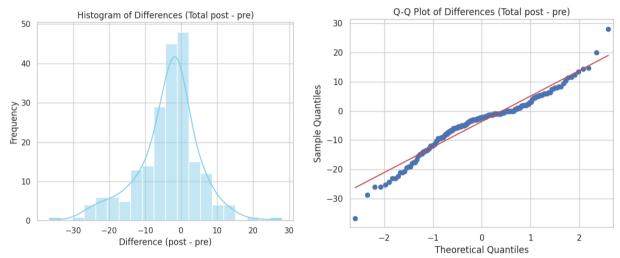


Figure 8 – Histogram and Q–Q plot of the differences between paired freedom scores

Variable: Total
Shapiro-Wilk test for normality → p = 0.0000

Since the differences between paired observations do not follow a normal distribution, as indicated by the histogram, Q-Q plot, and the Shapiro-Wilk test (p-value = 0.000), the non-parametric Wilcoxon signed-rank test, a non-parametric alternative to the paired t-test, was used.

```
Wilcoxon signed-rank test: statistic = 4941.5000, p-value = 0.0000 Mean difference (post - pre): -3.6268 Cohen's d: -0.4147
```

The test yielded a p-value of 0.0000, indicating that the observed differences are statistically significant. The negative mean difference (-3.62) confirms a significant decline in democratic freedom between 2013-2015 and 2023-2025, offering clear evidence of a global downward trend over the past decade.

To further assess the magnitude of this decline, we calculated Cohen's d as a measure of effect size. For paired samples, Cohen's d is calculated as:

$$d = \frac{X_{past} - X_{pre}}{S_d}$$

where:

- X_{past} and X_{pre} are the means of the post and pre periods
- S_d is the standard deviation of the differences

If Cohen's d values of 0.2, 0.5, and 0.8 are typically interpreted as small, medium, and large effects respectively. Cohen's d is equal to -0.41, indicating a moderate negative effect size. Thus, the reduction in democratic freedoms is not only statistically significant but also practically meaningful.

To further investigate, we examined whether the level of freedom of countries in 2013 (classified as "Free", "Partly Free", or "Not Free") influenced the subsequent change in their freedom status between 2013-2015 and 2023-2025. Since the data didn't satisfy the normality assumption, a non-parametric Kruskal-Wallis test was used, which revealed a significant difference among the groups (H = 18.70, p = 0.0001). Subsequently, the Dunn's post-hoc test indicated that "Free" countries experienced a significantly smaller decline in freedom compared to "Partly Free" (p = 0.0158) and "Not Free" countries (p = 0.000088), while no significant difference was found between "Partly Free" and "Not Free" countries (p = 0.1279).

In conclusion, this analysis suggests that these concerning scenarios of democratic decline do not appear to be improving over time. On the contrary, the level of freedom in countries, especially the more vulnerable ones, appears to be declining year after year. In recent years, there has, in fact, been increasing talk of a "crisis of democracy".

The crisis of democracy refers to a process of democratic decline in which, particularly in countries that are economically, and politically weaker, democratic institutions are progressively undermined, leading to a transition to autocratic forms of government.

Therefore, what's happening today in Nicaragua is not an isolated case, but part of a broader trend: a clear decline in political rights, civil liberties, transparency, and democratic participation. However, as previously mentioned, Nicaragua represents one of the most extreme cases of this democratic backsliding.

Conclusions

Democracy is in crisis worldwide, and Nicaragua shows this clearly.

Its history of conflict and instability made it easier for Ortega to concentrate power through media control, weak institutions, unfair elections, and repression.

Freedom House data shows the same global trend: more countries are now classified as Not Free, and the distance from Free countries keeps growing. This is even more worrying because younger generations are less connected to the memory of past struggles against dictatorships and often feel distant from democracy itself.

Meanwhile, authoritarian powers like China and Russia are strengthening their control at home and exporting their influence abroad. This weakens freedoms, creates instability, and helps extremist leaders rise.

Democracy, on the other hand, means participation, equality, and fairness. If current trends continue, we may see more fake elections, censorship, propaganda, and corruption. To stop this, we need to defend democratic values, remember the lessons of history, and protect democracy online by fighting disinformation, protecting personal data, and limiting digital manipulation.

The future will depend on Nicaragua's ability to resist and on the international community's will to defend democracy together. Only a shared effort can stop authoritarian trends and build a stronger democratic future.

Future research could continue to investigate these trends, comparing other countries and regions to better understand the global dynamics of democracy and authoritarianism.

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