

# ECONOMIC (POLICY) UNCERTAINTY IN BRAZIL BEFORE AND DURING THE COVID-19 CRISIS

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## ABSTRACT

There is a growing interest among economists and policymakers in examining economic (policy) uncertainty and its effects on the (overall) economy. This study examines the economic (policy) uncertainty in Brazil, the most populated country in Latin America, before and during the Covid-19 crisis, which has severely affected the Brazilian economy and society. Brazil was the first country in Latin America to report a confirmed case of Covid-19. This study finds that the Covid-19 crisis has contributed to an increase in economic (policy) uncertainty in Brazil. However, the increase was (more or less) short-lived. Data show that economic uncertainty in Brazil was at its peak in April 2020 and that economic policy uncertainty in Brazil was at its peak in March 2020.

***Keywords:** Brazil, Covid-19 crisis, Covid-19 recession, economic uncertainty, economic policy uncertainty, Latin America*

## INTRODUCTION

There is a growing interest among economists and policymakers in examining economic (policy) uncertainty and its effects on the (overall) economy. Many economists and policymakers believe that the economic (policy) uncertainty at the beginning of the Great Recession contributed to a slower economic recovery from the economic crisis.

The Covid-19 crisis, a health and economic crisis, which began in (the first quarter of) 2020, has contributed to an increase in uncertainty in general and in economic (policy) uncertainty in particular, see [1]. This paper examines the economic (policy) uncertainty in Brazil, which is the most populated country in Latin America followed by Mexico and Colombia. Research shows that Brazil has been severely affected by the Covid-19 pandemic, see [2]. According to the World Health Organisation [3], there have been 17.412.766 confirmed cases of Covid-19 with 487.401 deaths in Brazil from 3 January 2020 to 15 June 2021. The novelty of this study is that it examines the economic (policy) uncertainty in Brazil before and during the Covid-19 crisis (the Great Lockdown). Rodrigues de Andrade et al. [4] found that anger, fear and uncertainty were widespread in the Brazilian Twittersphere at the beginning of the Covid-19 crisis.

This study contributes to the growing body of literature on economic (policy) uncertainty in Latin America in general and in Brazil in particular. da Costa Filho [5] and Ferreira et al. [6] found that economic uncertainty in Brazil has negative effects on the Brazilian economy. The rest of this paper is divided into five sections: LITERATURE REVIEW (i.e., section 2), MATERIALS AND METHODS (i.e., section 3), RESEARCH (i.e., section 4), DISCUSSION (i.e., section 5) and CONCLUSION (i.e., section 6). Section 2 reviews the literature on the economic (policy) uncertainty in Brazil in general and on the effects of economic (policy) uncertainty on the Brazilian economy in particular. Section 3 gives the materials and methods of this study. Section 4 gives the result of this study. Section 5 discusses the results of this study. Section 6 concludes this study.

## LITERATURE REVIEW

In recent years, Brazil has been facing many problems such as corruption and crime. In 2014, it was hit by a big corruption scandal involving executive officers of *Petróleo Brasileiro S.A.*, a state-owned Brazilian energy company. Events such as **Operation Car Wash** (*Operação Lava Jato*), **the impeachment of Dilma Vana Rousseff**, the 36<sup>th</sup> president of Brazil, and **the imprisonment of Luiz Inácio Lula da Silva**, the 35<sup>th</sup> President of Brazil, have contributed to an increase in uncertainty in Brazil in general and in economic (policy) uncertainty in Brazil in particular, see [7].

There is a growing body of literature on the economic (policy) uncertainty in Brazil and its effects of economic (policy) uncertainty on the Brazilian economy, see [6]. Research shows that economic uncertainty has negative effects on the (overall) economy, see [8]. da Costa Filho [5], who used alternative measures of economic uncertainty for Brazil, found that a positive economic uncertainty shock in Brazil leads to a decrease in its economic activity. Ferreira et al. [6] also found that a positive economic uncertainty shock in Brazil leads to a decrease in its economic activity.

There is a growing debate among economists and policymakers over whether economic policy uncertainty leads to a decrease in economic activity. Kumar et al. [9] found that a positive economic policy uncertainty shock in Brazil has no statistically significant effects on its economy. They also found that a positive economic policy uncertainty shock in Europe, the United Kingdom or the United States has no statistically significant effects on the Brazilian economy. Contrary to Kumar et al. [9], Coronado et al. [10] found that a positive economic policy uncertainty shock in the United States leads to a depreciation of the Brazilian real. Montes and Nogueira [11] found that economic policy uncertainty has negative effects on business confidence and investment in Brazil.

## MATERIALS AND METHODS

In this study, I examine the economic (policy) uncertainty in Brazil before and during the Covid-19 crisis (i.e., from January 2000 to April 2021), using the **Economic Uncertainty Indicator for Brazil**, developed by Ferreira et al. [6], and the **Economic Policy Uncertainty Index for Brazil**, developed by Baker et al. [7] (see Table 1). Data on both measures are available at <https://www.policyuncertainty.com/>. The time series for the Economic Uncertainty Indicator for Brazil starts from January 2000 and the time series for the Economic Policy Uncertainty Index for Brazil starts from January 1991. The data used for this study were statistically analysed with STATA software.

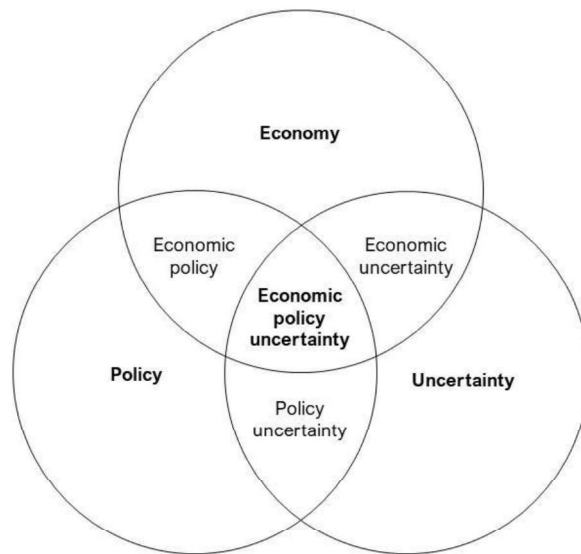
**Table 1.** Description of the Economic Uncertainty Indicator for Brazil and the Economic Policy Uncertainty Index for Brazil

Measure	Description
Economic Uncertainty Indicator	The Economic Uncertainty Indicator for Brazil is comprised of the Media Uncertainty Indicator and the Forecast Disagreement Uncertainty Indicator. The Media Uncertainty Indicator is based on the number of newspaper articles in six major Brazilian newspapers, namely Correio Braziliense, Folha de Sao Paulo, O Estado de S. Paul, O Globo, Valor Econômico and Zero Hora, containing the terms 'economia' and 'crise', 'incerteza' or 'instabilidade'.
Economic Policy Uncertainty Index	The Economic Policy Uncertainty Index for Brazil is based on the number of newspaper articles in Folha de Sao Paulo containing the terms 'incerteza' or 'incerto', 'economia' or 'econômico' and 'alvorada', 'banco central', 'câmara dos deputados', 'congresso', 'déficit', 'imposto', 'legislação', 'lei', 'orçamento', 'planalto', 'regulação', 'senado' or 'tarifa'.

## RESEARCH

There is a growing body of evidence that the Covid-19 crisis has contributed to an increase in economic (policy) uncertainty in Latin America in general and in Brazil in particular. According to the Instituto Brasileiro de Economia (IBE), or more precisely, the Comitê de Datação de Ciclos Econômicos (CODACE) [12], the Covid-19 recession in Brazil began in the first quarter of 2020.

The rest of this section is divided into two subsections. The first one deals with **economic uncertainty**, i.e., uncertainty about the (state of the) economy, in Brazil before and during the Covid-19 crisis and the second one deals with **economic policy uncertainty**, i.e., uncertainty about economic policy, in Brazil before and during the Covid-19 crisis. Figure 1 shows relations between the economy, policy and uncertainty. In the Venn diagram, the intersection between the circles is marked 'economic policy uncertainty'.



**Fig. 1.** *The relations between the economy, policy and uncertainty*

Table 2 shows descriptive statistics for study variables and Table 3 shows correlations for study variables.

**Table 2.** *Descriptive statistics for study variables*

Variable	<i>n</i>	<i>M</i>	<i>SD</i>	<i>Min</i>	<i>Max</i>
Business Confidence Index	136	53.8	8.4	34.5	68.3
Economic Uncertainty Indicator	256	105.2	17.3	83.6	210.5
Economic Policy Uncertainty Index	256	157.8	92.6	22.3	677.0

**Table 3.** *Correlations for study variables*

Variable	1	2	3
1. Business Confidence Index	1		
2. Economic Uncertainty Indicator	-.26*	1	
3. Economic Policy Uncertainty Index	-.37*	.51*	1

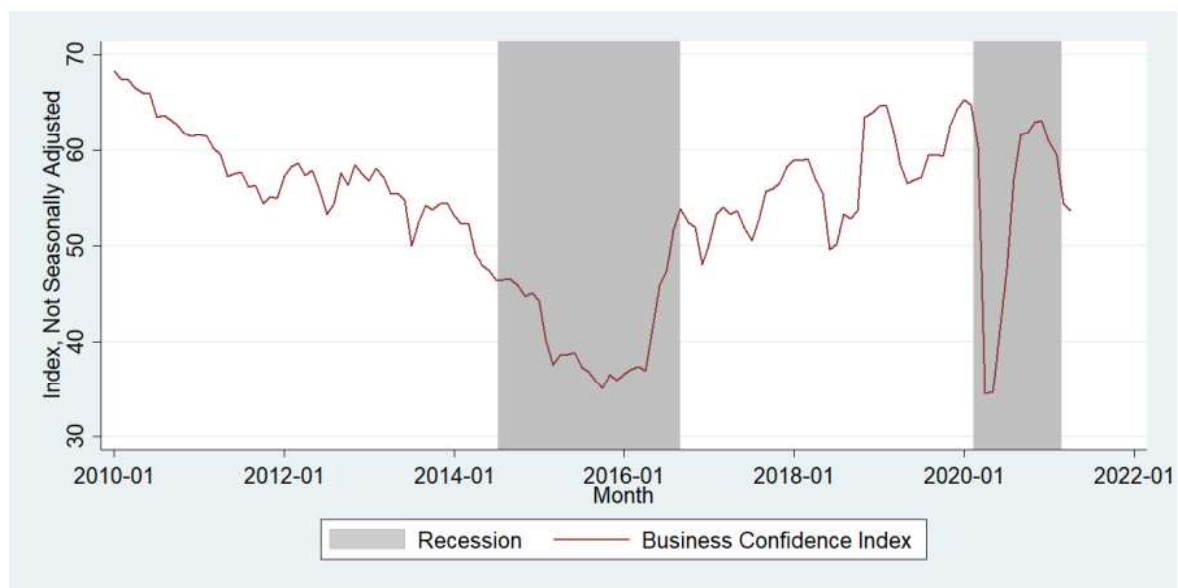
\*  $p < .05$ .

As you can see from Table 3, business confidence in Brazil is negatively correlated with economic uncertainty in Brazil, ( $r(134)=-.26$ ,  $p<.05$ ), and economic policy uncertainty in Brazil, ( $r(134)=-.37$ ,  $p<.05$ ). You can also see that economic uncertainty in Brazil is positively correlated with economic policy uncertainty in Brazil, ( $r(254)=.51$ ,  $p<.05$ ), which is in line with my expectations.

### Economic uncertainty in Brazil before and during the Covid-19 crisis

In this subsection, I examine the economic uncertainty in Brazil before and during the Covid-19 crisis, using the Business Confidence Index (Índice de Confiança do Empresário Industrial) for Brazil, calculated and used by the Confederação Nacional da Indústria (CNI), and the Economic Uncertainty Index for Brazil, calculated and used by IBE. In 2020, real GDP growth in Brazil was  $-4.1\%$ , which was higher than in Latin America ( $-7.2\%$ ) [13].

Figure 2 shows business confidence in Brazil from January 2010 to April 2021.

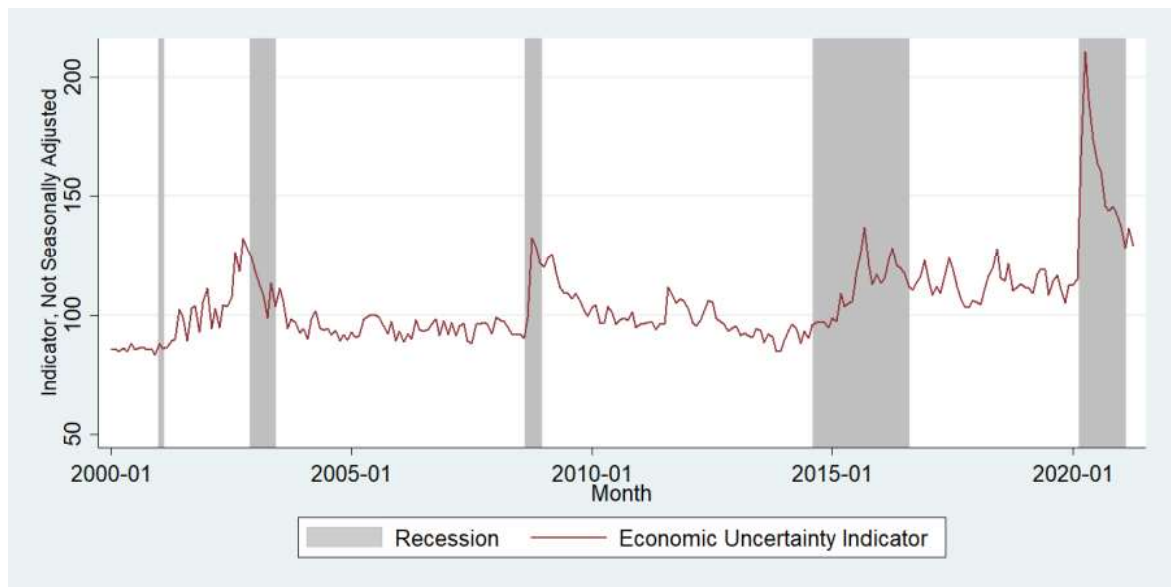


**Fig. 2.** Business confidence in Brazil from January 2010 to April 2021

Source: [12].

As you can see from Figure 2, business confidence in Brazil rapidly decreased at the beginning of the Covid-19 recession in the first half of 2020. By April 2020, business confidence in Brazil was at its bottom in recent memory. From January to April 2020, the Business Confidence Index for Brazil decreased from 65.3 to 34.5 ( $-47,2\%$ ). During the previous recession, the Business Confidence Index for Brazil bottomed out at 35.1.

Figure 3 shows economic uncertainty in Brazil from January 2000 to April 2021.



**Fig. 3.** *Economic uncertainty in Brazil from January 2000 to April 2021*

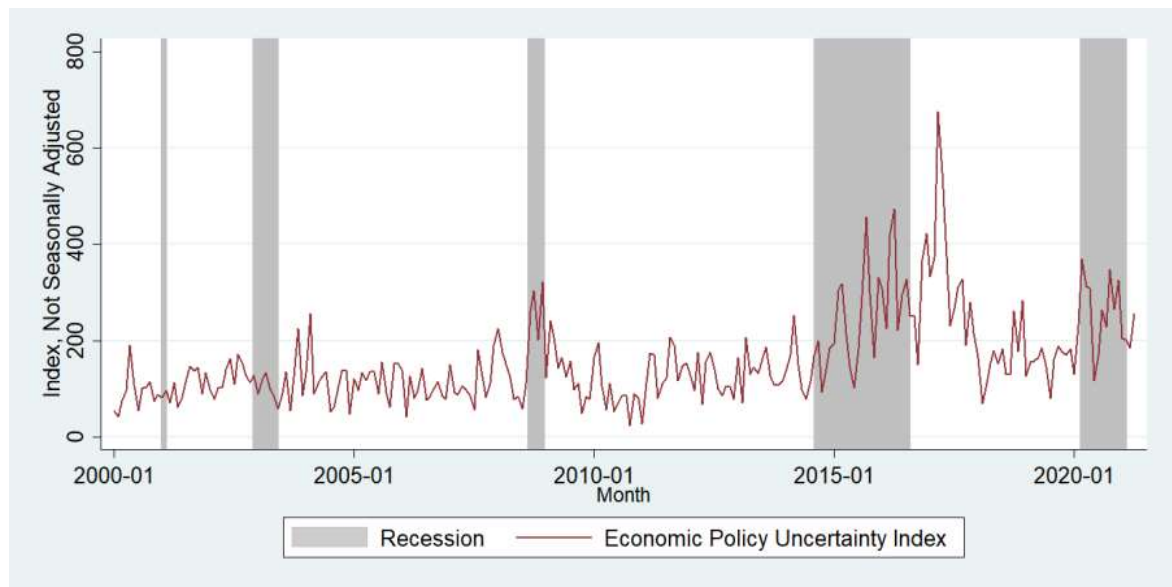
Source: [7], <https://www.policyuncertainty.com/>.

As you can see from Figure 3, economic uncertainty in Brazil rapidly increased at the beginning of the Covid-19 recession. By April 2020, economic uncertainty in Brazil was at its peak in recent memory. From January to April 2020, Economic Uncertainty Indicator for Brazil increased from 112.9 to 210.5 (+84.4%). There have been four major peaks in economic uncertainty in Brazil in its recent history: the first one in October 2002 (i.e., during the 2002 Brazilian presidential election, which was won by Luiz Inácio Lula da Silva, a left-wing candidate), the second one in October 2008 (i.e., during the Great Recession), the third one in September 2015 (i.e., during the Great Brazilian Recession) and the last one in April 2020 (as I mentioned earlier).

### **Economic policy uncertainty in Brazil before and during the Covid-19 crisis**

In this subsection, I examine the economic policy uncertainty in Brazil before and during the Covid-19 crisis, using the Economic Policy Uncertainty Index for Brazil.

Figure 4 shows economic policy uncertainty in Brazil from January 2000 to April 2021.



**Fig. 4.** *Economic policy uncertainty in Brazil from January 2000 to April 2021*

Source: [6], <https://www.policyuncertainty.com/>

As you can see from Figure 4, economic policy uncertainty in Brazil rapidly increased at the beginning of the Covid-19 recession. By March 2020, economic policy uncertainty in Brazil was at its peak during the Covid-19 crisis. From January to March 2020, Economic Policy Uncertainty Index for Brazil increased from 130.7 to 368.9 (182.2%). Before the Covid-19 recession, economic policy uncertainty in Brazil was highest in March 2017, when the **Operation Weak Flesh** (*Operação Carne Fraca*) began.

## DISCUSSION

Brazil has been severely affected by the Covid-19 recession, while still recovering from the previous recession, which lasted from April 2014 to December 2016 (33 months) or from the second quarter of 2014 to the fourth quarter of 2016 (11 quarters) [12]. Data on economic (policy) uncertainty shows that the Covid-19 crisis has contributed to an increase in economic (policy) uncertainty in Brazil. As you can see from Figure 2, economic uncertainty in Brazil was at its worst in recent memory. Many economists believe that **Jair Messias Bolsonaro**, the 38<sup>th</sup> president of Brazil, has contributed to an increase in (overall) uncertainty in Brazil during the Covid-19 crisis. Among other things, he has downplayed the risk of infection with SARS-CoV-2.

## CONCLUSION

This study shows that the Great Lockdown has been a contributing factor in increasing economic (policy) uncertainty in Brazil. The Covid-19 pandemic has been a demand and supplies shock that has severely affected the Brazilian

economy and society. It turned out that Brazil, like other countries in Latin America, was not prepared for a pandemic. On 25 February 2020, São Paulo Municipal Health Department (*Secretaria Municipal de Saúde de São Paulo*) reported the first confirmed case of Covid-19 in Brazil and in Latin America. Later, Brazil became a hotbed of infections with SARS-CoV-2 in the region.

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