Predicción IPC para los próximos 1 meses

1 Predicciones

Año	Mes	República	Región I	Región II	Región III	Región IV	Región V	Región VI	Región VII	Región VIII
2023	Diciembre	168.09	142.17	247.87	159.66	236.56	154.69	153.53	227.66	170.9

2 Gráficas

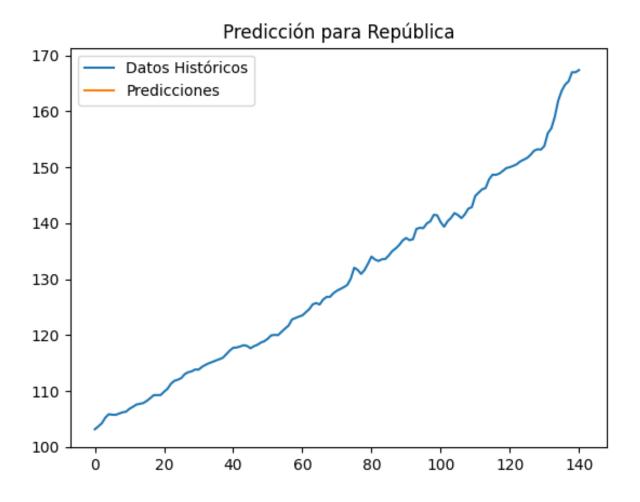


Figure 1: Gráfica de República

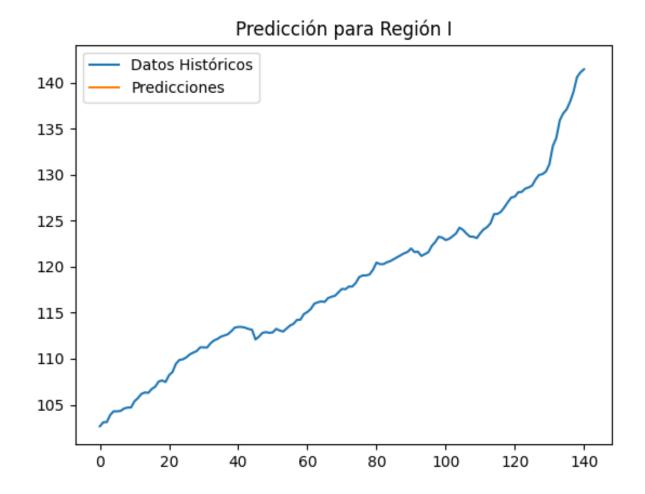


Figure 2: Gráfica de Región I

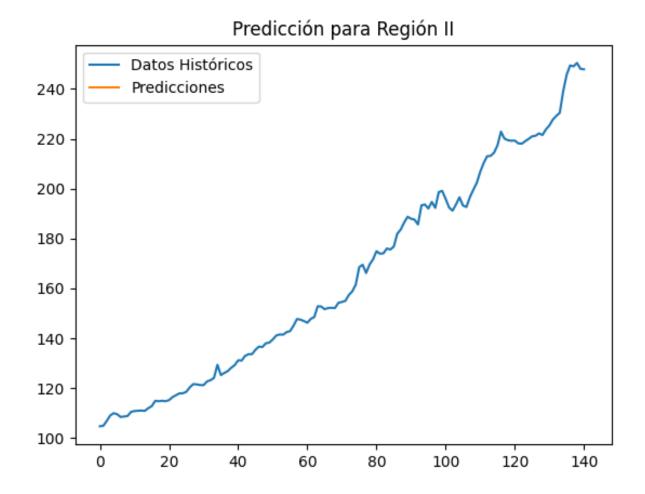


Figure 3: Gráfica de Región II

Predicción para Región III Datos Históricos Predicciones 110 -Ó

Figure 4: Gráfica de Región III

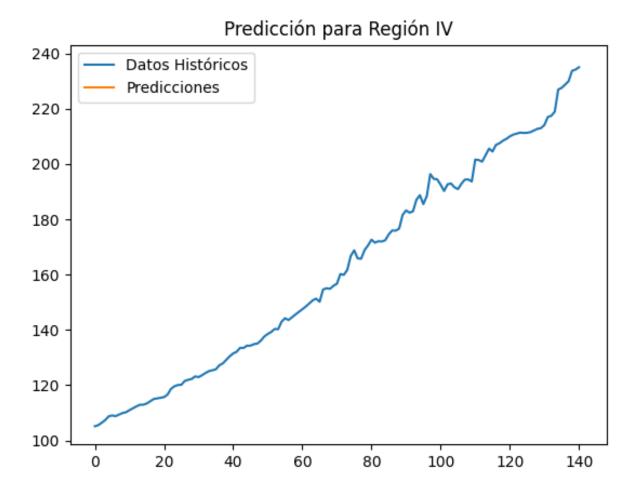


Figure 5: Gráfica de Región IV

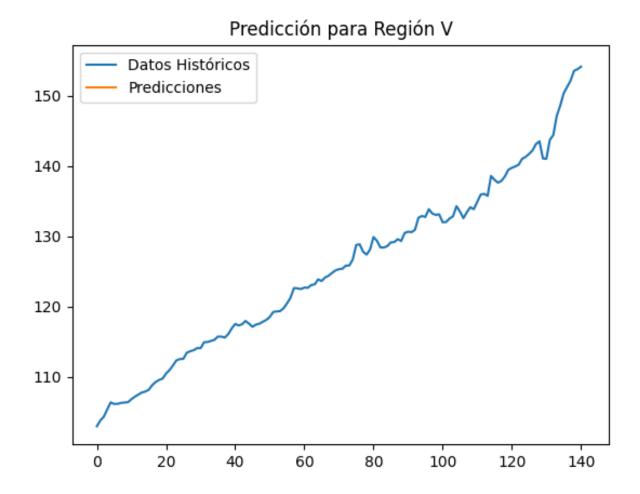


Figure 6: Gráfica de Región V

Predicción para Región VI Datos Históricos Predicciones 110 -Ó

Figure 7: Gráfica de Región VI

Predicción para Región VII Datos Históricos Predicciones 120 -

Figure 8: Gráfica de Región VII

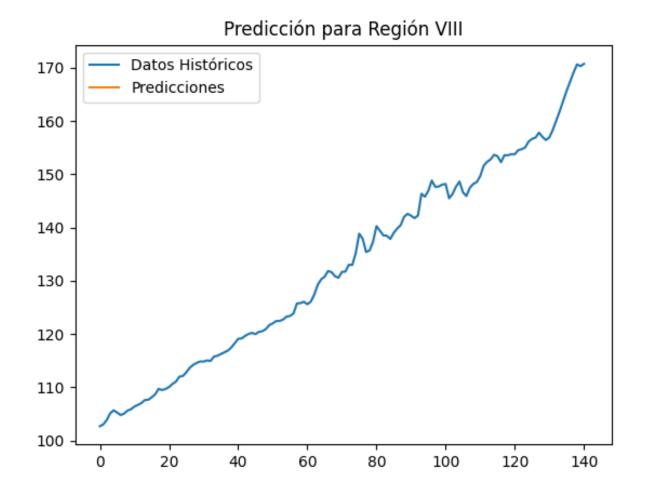


Figure 9: Gráfica de Región VIII

3 Tablas de resumen

República

		-	D 17			D (11) N O1 (1			<u> </u>	
			Dep. Va	rıable:		epública	No. Observations:	141		
			Model:		ARIMA(0, 2, 2)		2) Log Likelihood	-112.52	29	
			Date:		Wed, 22 Nov 2023		23 AIC	231.05	8	
			Time:]	11:52:30	BIC	2		
			Sample:			0	\mathbf{HQIC}	234.63	6	
						- 141				
			Covarian	ice Type	:	opg				
	\mathbf{coef}	std err	${f z}$	$\mathbf{P} > \mathbf{z} $	[0.025]	0.975]	Ljung-Box (L1) (Q):	0.22	Jarque-Bera (JB):	35.95
ma.L1	-0.5955	0.054	-11.024	0.000	-0.701	-0.490	Prob(Q):	0.64	Prob(JB):	0.00
ma.L2	-0.3488	0.066	-5.309	0.000	-0.478	-0.220	Heteroskedasticity (H):	8.32	Skew:	0.70
sigma2	0.2912	0.024	11.995	0.000	0.244	0.339	Prob(H) (two-sided):	0.00	Kurtosis:	5.06

Warnings:

Región I

		•	Dep. Va	riable:]	Región I	No. Observations:	141		
			Model:		ARI	MA(1, 2,	1) Log Likelihood	-50.46	3	
			Date:		Wed,	22 Nov 20	023 AIC	106.92	6	
			Time:			11:52:30 BIC		115.73	0	
			Sample:			0	\mathbf{HQIC}	110.50	4	
						- 141				
			Covaria	nce Type	e:	opg				
	\mathbf{coef}	std err	${f z}$	$\mathbf{P} > \mathbf{z} $	[0.025]	0.975]	Ljung-Box (L1) (Q):	0.01	Jarque-Bera (JB):	66.74
ar.L1	0.1670	0.114	1.466	0.143	-0.056	0.390	Prob(Q):	0.92	Prob(JB):	0.00
ma.L1	-0.8754	0.046	-19.138	0.000	-0.965	-0.786	Heteroskedasticity (H):	2.01	Skew:	0.76
sigma2	0.1200	0.011	11.065	0.000	0.099	0.141	Prob(H) (two-sided):	0.02	Kurtosis:	6.04

Warnings:

^[1] Covariance matrix calculated using the outer product of gradients (complex-step).

^[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región II

		-							<u></u>		
			Dep. Va	ariable:]	Región II	No. Observations:	141			
			Model:		AR	IMA(0, 1,	0) Log Likelihood	-315.5	550		
			Date:		Wed,	22 Nov 20	023 AIC	633.100 636.041			
			Time:			11:52:30	BIC				
			Sample:			0	\mathbf{HQIC}	634.295			
						- 141					
			Covaria	nce Type	e:	opg					
		-					Ljung-Box (L1) (Q):	1.52	Jarque-Bera (JB):	39.84	
	\mathbf{coef}	std err	${f z}$	$\mathbf{P} > \mathbf{z} $	[0.025	0.975]	Prob(Q):	0.22	Prob(JB):	0.00	
sigma2	5.3121	0.434	12.232	0.000	4.461	6.163	Heteroskedasticity (H):	4.17	Skew:	0.79	
							Prob(H) (two-sided):	0.00	Kurtosis:	5.08	

Warnings:

[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región III

			Dep. Von Model: Date: Time: Sample:		AR	Región III IMA(1, 2, 2 , 22 Nov 20 11:52:30 0	,	141 -81.42 170.8 182.5 175.6	21 42 80	
			Covaria	nce Typ	e:	- 141 opg				
	\mathbf{coef}	std err	z	$rac{P> \mathbf{z} }{P}$	$\boxed{[0.025]}$	0.975]	Liung Doy (L1) (O).	0.20	Iangua Dana (ID).	250 41
ar.L1	-0.8515	0.091	-9.401	0.000	-1.029	0.071	Ljung-Box (L1) (Q): Prob(Q):	$0.29 \\ 0.59$	Jarque-Bera (JB): Prob(JB):	250.41 0.00
ma.L1	0.0990	0.065	1.520	0.128	-0.029	0.227	Heteroskedasticity (H):	4.45	Skew:	1.25
ma.L2	-0.8021	0.065	-12.354	0.000	-0.929	-0.675	Prob(H) (two-sided):	0.00	Kurtosis:	9.08
${f sigma2}$	0.1870	0.013	14.447	0.000	0.162	0.212 -				

Warnings:

[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región IV

			Dep. V	ariable:		Región IV	No. Observations:	141			
			Model:	ARIMA(3, 1,			2) Log Likelihood	-260.3	19		
			Date:		Wed	l, 22 Nov 2	2023 AIC	532.6	532.638 550.287		
			Time:			11:52:30	BIC	550.2			
			Sample	:		0	\mathbf{HQIC}	539.8	10		
			-			- 141	•				
			Covaria	ance Typ	oe:	opg					
	\mathbf{coef}	std err	\mathbf{z}	P> z	[0.025]	0.975]					
ar.L1	0.7888	0.186	4.232	0.000	0.423	1.154	Ljung-Box (L1) (Q):	0.02	Jarque-Bera (JB):	214.32	
ar.L2	-0.1427	0.192	-0.745	0.456	-0.518	0.233	$\operatorname{Prob}(Q)$:	0.88	Prob(JB):	0.00	
ar.L3	0.3527	0.062	5.730	0.000	0.232	0.473	Heteroskedasticity (H):	16.90	Skew:	1.30	
ma.L1	-0.8338	0.177	-4.700	0.000	-1.182	-0.486	Prob(H) (two-sided):	0.00	Kurtosis:	8.48	
ma.L2	-0.1261	0.175	-0.721	0.471	-0.469	0.217	2 10%(22) (0.00 black).				
$\mathbf{sigma2}$	2.3675	0.200	11.811	0.000	1.975	2.760					

Warnings:

Región V

gion v										
		-	Dep. Va	riable:	R	legión V	No. Observations:	o. Observations: 141		
			Model:		ARIMA(1, 1, 1)) Log Likelihood	-148.04	2	
			Date:		Wed, 22 Nov 2023		23 AIC	302.083	}	
			Time:		1	1:52:30	BIC	310.908	3	
			Sample:			0	\mathbf{HQIC}	305.669)	
						- 141				
			Covarian	ce Type	:	opg				
	\mathbf{coef}	std err	${f z}$	$\mathbf{P} > \mathbf{z} $	[0.025]	0.975]	Ljung-Box (L1) (Q):	0.96	Jarque-Bera (JB):	92.34
ar.L1	0.9984	0.005	201.347	0.000	0.989	1.008	Prob(Q):	0.33	Prob(JB):	0.00
ma.L1	-0.9637	0.041	-23.378	0.000	-1.045	-0.883	Heteroskedasticity (H):	7.40	Skew:	0.48
sigma2	0.4789	0.035	13.650	0.000	0.410	0.548	Prob(H) (two-sided):	0.00	Kurtosis:	6.86

Warnings:

^[1] Covariance matrix calculated using the outer product of gradients (complex-step).

^[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región VI

		_											
			Dep. Va	riable:	R	egión VI	No. Observations:	141					
			Model:		ARI	MA(0, 2, 1)	1) Log Likelihood	-137.84	.9				
			Date:		Wed,	22 Nov 20	$\hat{\mathbf{AIC}}$	279.698	8				
			Time:			11:52:31 BIC			285.567				
			Sample:			0	HQIC	282.08	3				
			•			- 141	•						
			Covarian	ce Type	:	opg							
	coef	$_{ m std}$ err	\mathbf{z}	$\mathbf{P} > \mathbf{z} $	[0.025	0.975]	Ljung-Box (L1) (Q):	0.95	Jarque-Bera (JB):	36.47			
					•		Prob(Q):	0.33	Prob(JB):	0.00			
ma.L1	-0.9335	0.029	-32.656	0.000	-0.990	-0.877	Heteroskedasticity (H):	6.78	Skew:	0.74			
$\mathbf{sigma2}$	0.4193	0.035	11.926	0.000	0.350	0.488	Prob(H) (two-sided):	0.00	Kurtosis:	5.02			

Warnings:

[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región VII

									<u></u>	
			Dep. Va	ariable:	R	egión VII	No. Observations:	141		
			Model:		ARIMA(0, 2, 3) Log Likelihood Wed, 22 Nov 2023 AIC 11:52:31 BIC			-276.72	4	
			Date:					561.449)	
			Time:					573.187		
			Sample:			0	\mathbf{HQIC}	566.219)	
						- 141				
			Covaria	nce Type	e:	opg				
	\mathbf{coef}	std err	\mathbf{z}	P> z	[0.025]	0.975]	I. D (I.1) (O)	0.05		90.45
ma.L1	-0.7475	0.053	-14.173	0.000	-0.851	-0.644	Ljung-Box (L1) (Q):	0.35	Jarque-Bera (JB):	39.45
ma.L2	-0.6334	0.061	-10.370	0.000	-0.753	-0.514	Prob(Q):	0.55	Prob(JB): Skew:	0.00
ma.L3	0.4112	0.056	7.281	0.000	0.300	0.522	Heteroskedasticity (H): Prob(H) (two-sided):	20.73		0.38
sigma2	3.0592	0.251	12.188	0.000	2.567	3.551	From(n) (two-sided):	0.00	Kurtosis:	5.49
_										

Warnings:

[1] Covariance matrix calculated using the outer product of gradients (complex-step).

Región VIII

		_										
			Dep. Va	riable:	Re	egión VIII	No. Observations:	141				
			Model:		ARIMA(2, 1, 0)		0) Log Likelihood	-196.4	60			
			Date:		Wed,	22 Nov 20)23 AIC	398.91	19			
			Time:			11:52:31	BIC	407.744				
			Sample:			0	\mathbf{HQIC}	402.50	06			
						- 141						
			Covaria	nce Type	e:	opg						
	\mathbf{coef}	std err	\mathbf{z}	P> z	[0.025]	0.975]	Ljung-Box (L1) (Q):	2.16	Jarque-Bera (JB):	34.82		
ar.L1	0.3612	0.057	6.293	0.000	0.249	0.474	Prob(Q):	0.14	Prob(JB):	0.00		
ar.L2	-0.0747	0.070	-1.070	0.285	-0.211	0.062	Heteroskedasticity (H):	6.20	Skew:	-0.14		
$\mathbf{sigma2}$	0.9683	0.088	11.004	0.000	0.796	1.141	Prob(H) (two-sided):	0.00	Kurtosis:	5.43		

Warnings:

^[1] Covariance matrix calculated using the outer product of gradients (complex-step).