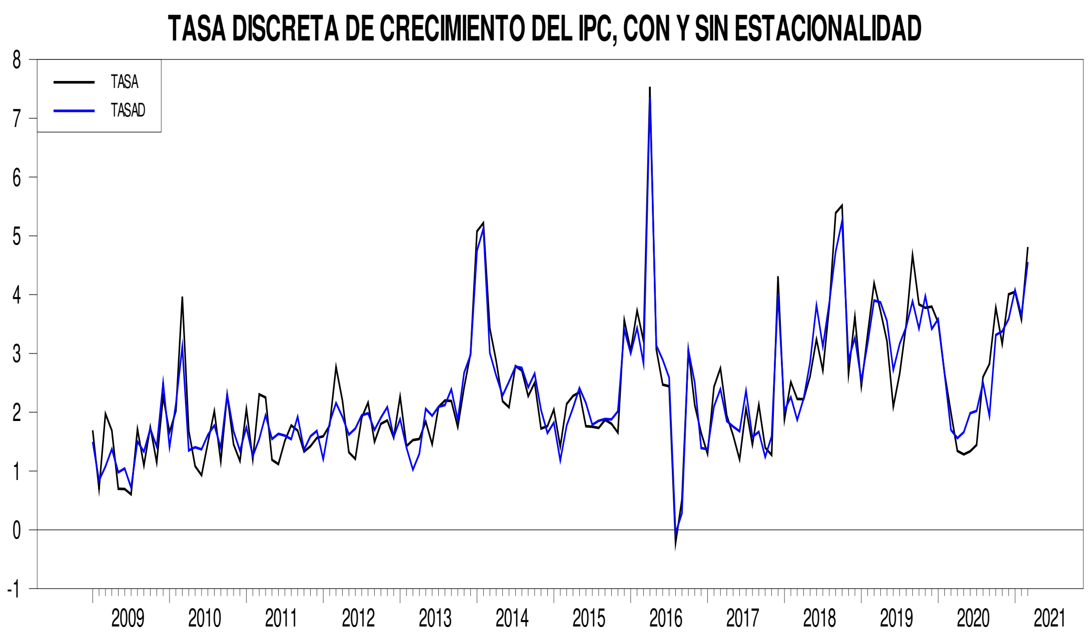
¿ES CONVENIENTE DESESTACIONALIZAR LA SERIE DE IPC?

1. Determinar si el IPC tiene comportamiento estacional es un tema que siempre tuve presente, pero nunca había visto en profundidad. En mis regresiones, en las que frecuentemente he utilizado la tasa de inflación, nunca lo hice con valores desestacionalizados.

2. Por supuesto que siempre tuve presente que algunos de los componentes del Índice, como "vestir", tienen un fuerte comportamiento estacional, pero como su ponderación en el índice es relativamente baja, nunca pensé que en el total tuviera importancia. También, obviamente tienen alguna estacionalidad las bebidas alcohólicas y los útiles escolares, así como hoteles y restaurantes, pero creo que se compensan de alguna manera porque tienen diferentes comportamientos estacionales.

3. Para analizar la cuestión el primer paso fue desestacionalizar la serie de la tasa discreta de inflación expresada en porcentaje y compararla con la serie sin desestacionalizar,



como se puede ver en el gráfico, donde se aprecia que las diferencias no son demasiado importantes

4. Como donde está la estacionalidad está en algunos de los componentes, calculé las ponderaciones, haciendo la regresión correspondiente, que transcribo

Linear Regression - Estimation by Least Squares
Dependent Variable NIVELGENERAL
Monthly Data From 2016:12 To 2021:03
Usable Observations 52
Degrees of Freedom 43
Centered R^2 0.9999855
Durbin-Watson Statistic 1.3994

Variable	Coeff	Std Error	T-Stat	Signif
1. ALIMENTOS	0.3315136151	0.0216018648	15.34653	0.00000000
2. BEBIDAS	0.0538224641	0.0214443704	2.50986	0.01592217
3. VESTIR	0.0973400149	0.0145863520	6.67336	0.00000004
4. VIVIENDA	0.1053363194	0.0061709853	17.06961	0.00000000
5. EQUIPAMIENTO	0.0525932792	0.0250569484	2.09895	0.04172966
6. SALUD	0.0830768352	0.0131048870	6.33938	0.00000012
7. TRANSPORTE	0.0884810656	0.0132874600	6.65899	0.00000004
8. RESTAURANTES	0.1461672897	0.0282471418	5.17459	0.00000570
9. VARIOS	0.0452294358	0.0171845587	2.63198	0.01174129

(notar que la suma de coeficientes es igual a la unidad)

y a continuación puede verse la serie sin desestacionalizar (TASA) y la misma serie desestacionalizada.

ENTRY	TASA	TASAD
1991:02	26.99043830105	26.19677333750
1991:03	11.04232341806	10.64896013242
1991:04	5.51049327699	5.29428827803
1991:05	2.80460161287	2.88705985636
1991:06	3.12370689146	3.60809741907
1991:07	2.59099657352	2.58777809735
1991:08	1.30091453747	1.66773792308
1991:09	1.76642388106	1.68482765941
1991:10	1.35080568669	1.35027676800
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1991:12	0.64923649788	1.16025118108
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1992:03	2.09961446940	1.78850598419
1992:04	1.28670450488	1.07506377631
1992:05	0.67304337890	0.74977878702
1992:06	0.78409307694	1.23297161642
1992:07	1.72873997259	1.68178733404
1992:08	1.49668724430	1.84432760773
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1992:12	0.28368297947	0.71988014753
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1993:04	1.04533909445	0.86150479380
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2017:01	1.29129129129	1.37158344499
2017:02	2.43107026386	2.09725558490
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2017:04	1.94366197183	1.85122646827
2017:05	1.60265266648	1.75529057531
2017:06	1.19662768561	1.67653353968
2017:07	2.06933619995	2.36707366003
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2018:04	2.22222222222	2.23679353359
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2019:07	2.65928725702	3.16597534083
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2019:10	3.83588249575	3.42261029462
2019:11	3.77601122282	3.97635475083
2019:12	3.79632758815	3.41593217064
2020:01	3.52724115476	3.58311552513
2020:02	2.66275290911	2.65430448253
2020:03	1.99121821709	1.69902984773
2020:04	1.34160993192	1.55947481846
2020:05	1.28433115985	1.66047663572
2020:06	1.33632461959	1.98378956700
2020:07	1.44383482530	2.02303503225
2020:08	2.59986716007	2.50648811864
2020:09	2.81975399982	1.93690392655
2020:10	3.77949073116	3.31416938766
2020:11	3.15970494110	3.37587349337
2020:12	4.00556733835	3.58370222615
2021:01	4.04902941983	4.07853971772
2021:02	3.57463168148	3.64876668493
2021:03	4.81080749628	4.55340892913

5. Luego calculé los correlogramas de las tasas de inflación de los distintos componentes del índice y logré los siguientes resultados:

Correlations of Series TASAALIMENTOS
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.52656	0.30439	0.19235	0.27582	0.26329	0.15045	0.06602	-0.05003	-0.04829	-0.10834

11	12	13	14	15
0.01312	0.03950	0.04850	0.01858	-0.16154

Correlations of Series TASABEBIDAS
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.23114	0.41755	0.24212	0.01175	-0.0308	-0.03694	-0.10602	-0.05511	-0.06135	0.00558

11	12	13	14	15
0.00244	0.15722	0.06732	0.11503	0.06407

Correlations of Series TASAVESTIR
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.32348	-0.18863	-0.18442	-0.06842	0.36767	0.66325	0.12542	-0.15776	-0.04210	0.04317

11	12	13	14	15
0.26231	0.55066	0.10342	-0.17020	-0.11200

Correlations of Series TASAEQUIP
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.27306	0.31213	0.11719	0.04631	-0.00209	0.17166	0.08141	0.03922	0.02999	0.02535

11	12	13	14	15
0.14259	0.12758	0.20460	0.03369	0.03896

Correlations of Series TASASALUD
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.54607	0.33770	0.33275	0.09044	-0.02739	0.01984	-0.09720	-0.22397	-0.03881	-0.01766

11	12	13	14	15
0.01304	0.11878	-0.00148	-0.11494	-0.01701

Correlations of Series TASATRANSP
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.55344	0.33791	0.27034	0.10234	0.03036	0.05290	0.09008	-0.07773	-0.20116	-0.21255

11	12	13	14	15
-0.13390	-0.22131	-0.18427	-0.02117	-0.12596

Correlations of Series TASAREST
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.56320	0.39100	0.24276	0.21317	0.18110	0.15064	-0.01521	-0.14152	-0.16012	-0.13591

11	12	13	14	15
-0.05738	0.06785	-0.10380	0.00700	-0.02763

Correlations of Series TASAVARIOS
Monthly Data From 2017:01 To 2021:03

Autocorrelations

1	2	3	4	5	6	7	8	9	10
0.67600	0.51345	0.33231	0.17507	0.05689	0.03496	-0.09648	-0.03766	-0.09728	-0.01351

11	12	13	14	15
0.16367	0.17483	0.03112	0.01736	-0.11981

Como puede verse, el único rubro que presenta una marcada estacionalidad es "vestir", que presenta valores importantes en el sexto y el duodécimo rezago (cada seis meses aparecen los productos de la temporada de invierno y la de verano), pero tiene una ponderación en el índice de solamente el 9,73%. Los otros ocho rubros presentan signos muy débiles de estacionalidad. Todos presentan un valor elevado para el primer rezago, que desciende lentamente, lo que expresa la inercia inflacionaria.

6. En conclusión, creo que la serie de IPC presenta una estacionalidad bastante reducida, y no es muy diferente de la serie desestacionalizada, pero si vamos a trabajar con alguno de los componentes del índice, como vestir, por ejemplo, se debe tener en cuenta su estacionalidad.