



Efectos de corto plazo de la inclusión financiera en agregados macrofinancieros para Perú: Estimaciones preliminares

GABRIEL SEBASTIÁN DEL CARPIO CUENCA



Ajustes a los datos

- Se eliminaron las variables de crédito y non-performing loans.
- Las variables domésticas y de z score bancario se pusieron en variaciones anuales.
- Se aplicó PCA para cada dimensión de la inclusión financiera (menos acceso), resultando en dos índices construidos con sus dos primeros componentes principales (>90% varianza) y uno que fue normalizado. También se construyó un índice de inclusión financiera en base a esos tres índices.
- A las variables bancarias (excepto bank-zscore) y los índices de inclusión financiera no fue posible aplicar variaciones directamente. Se evaluó como hacerlas estables, optando finalmente por un ajuste por medias móviles. Más adelante entrará a detalle.
- La variable de apertura financiera aún no se cambió a deudas en el exterior sobre deudas totales del banco.



¿Qué se verá a continuación?

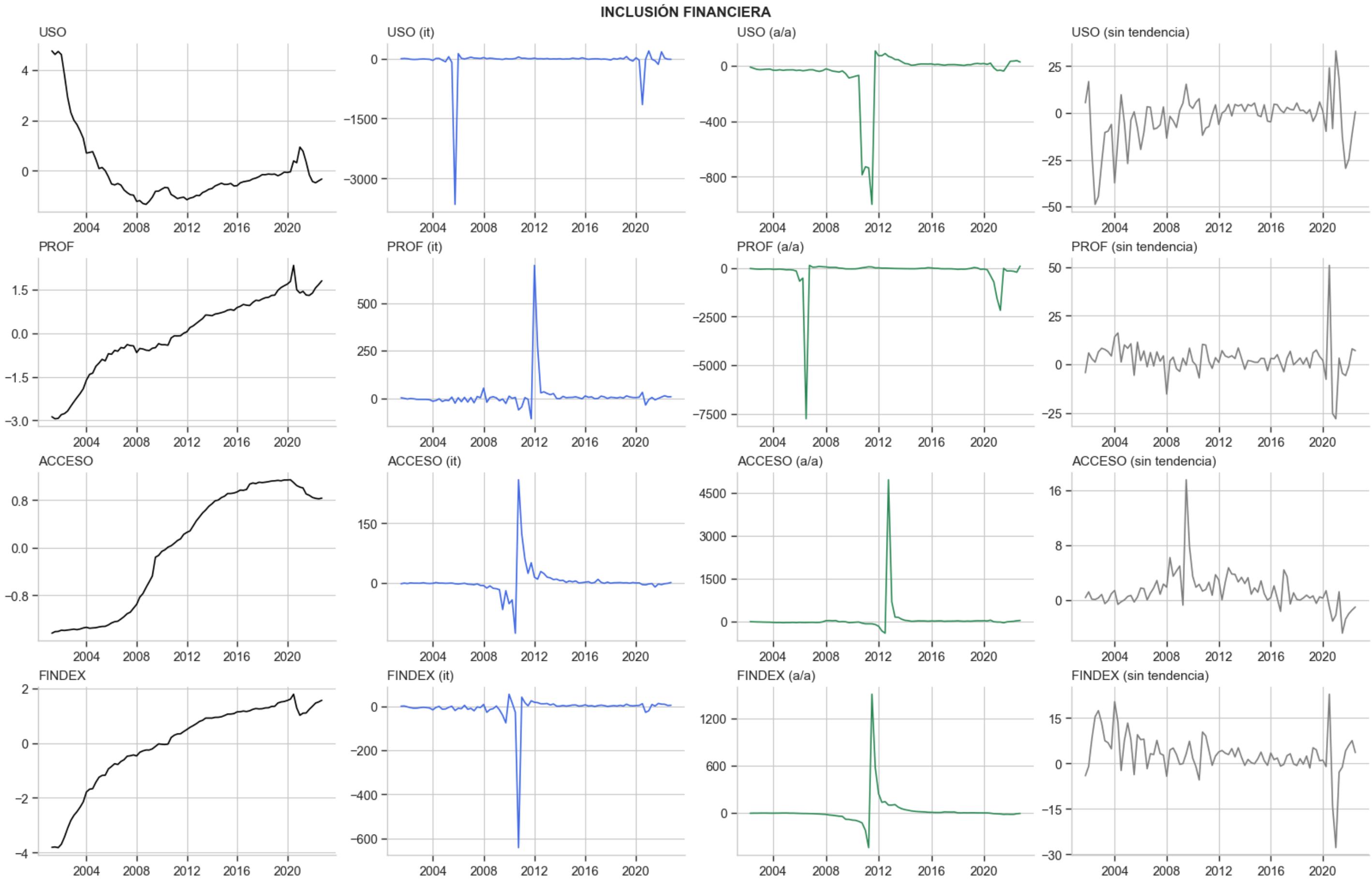
- Series en niveles y variaciones propuestas por bloque.
- Resultados de modelos VAR (IRF's y FEVD):
 - Solo FINDEX
 - Solo ACCESO, USO y PROF
- Resultados de modelo TV BVAR (IRF's, coef. posterior y FEVD):
 - Solo FINDEX
 - Solo ACCESO
 - Solo USO
 - Solo PROF
 - Solo ACCESO, USO y PROF
- Conclusiones preliminares



Series de tiempo

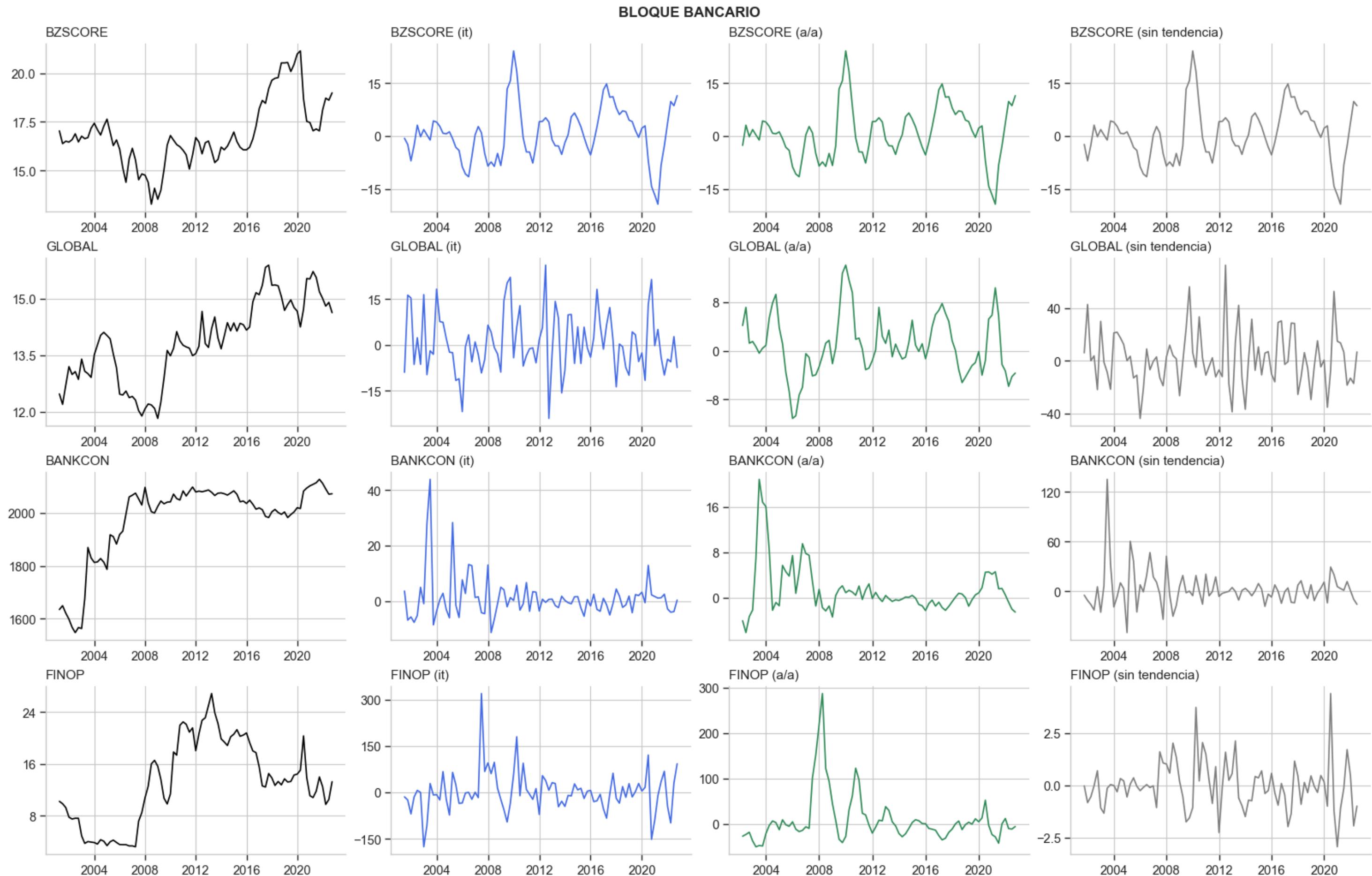


Bloque de inclusión financiera



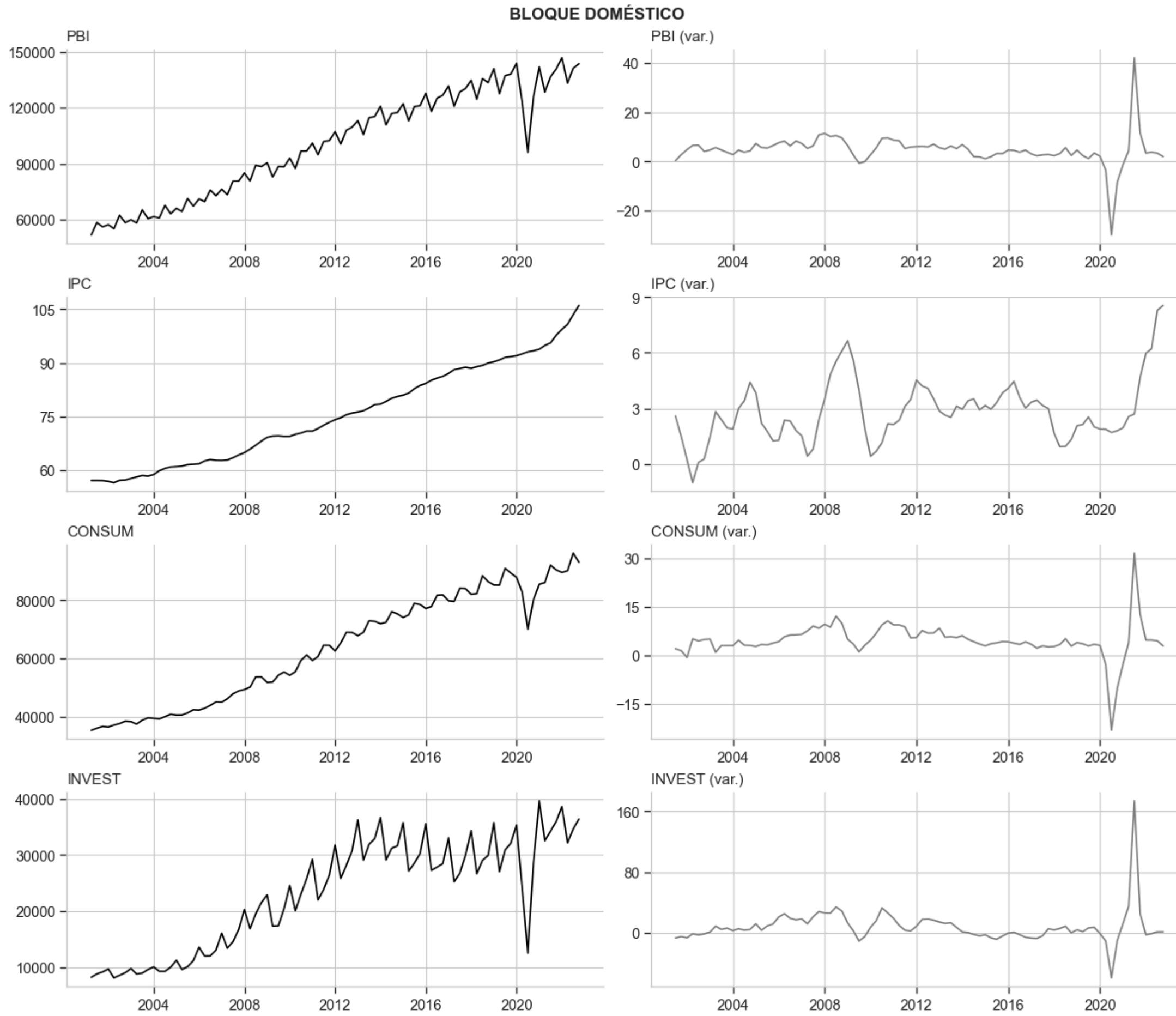


Bloque bancario



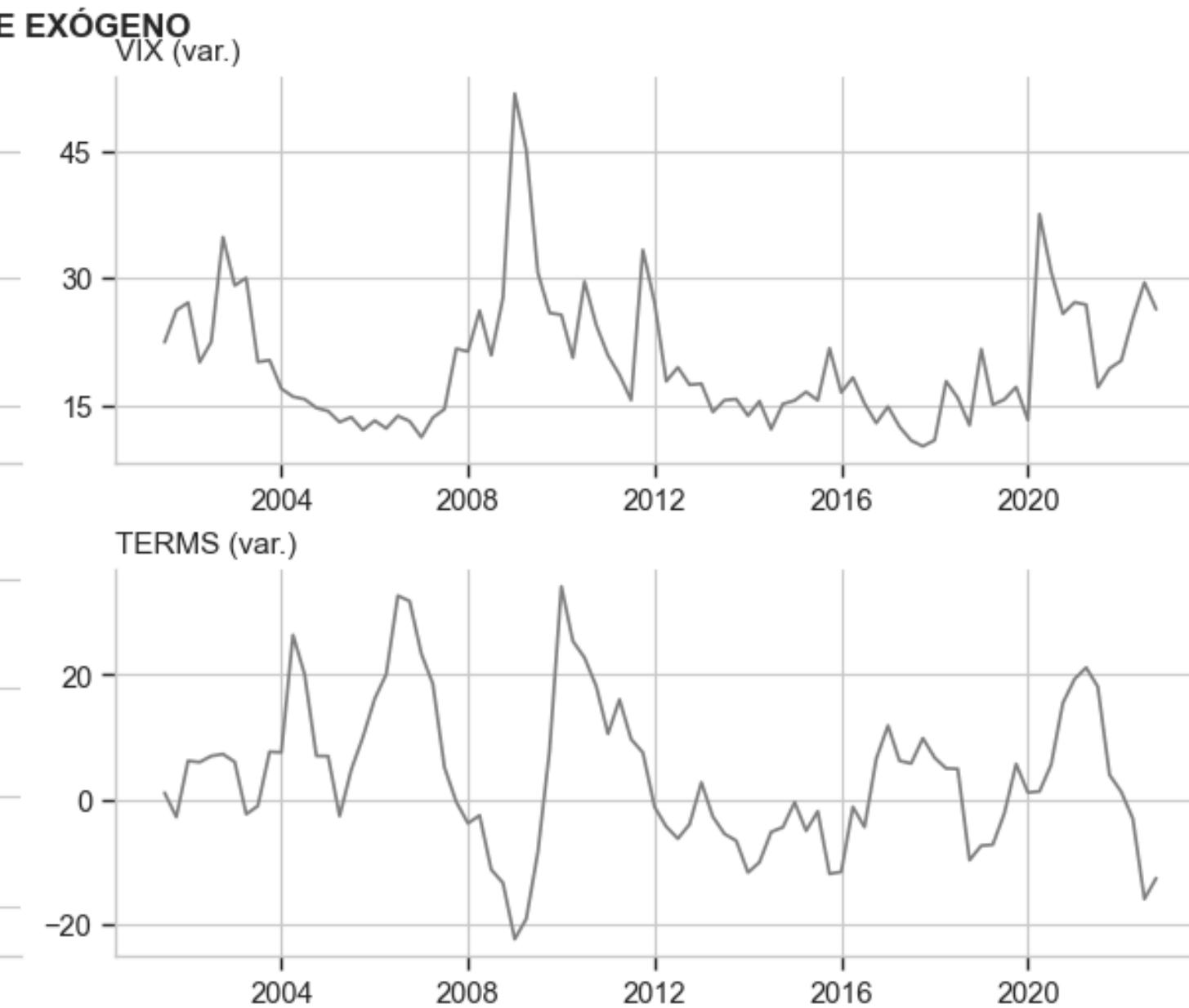
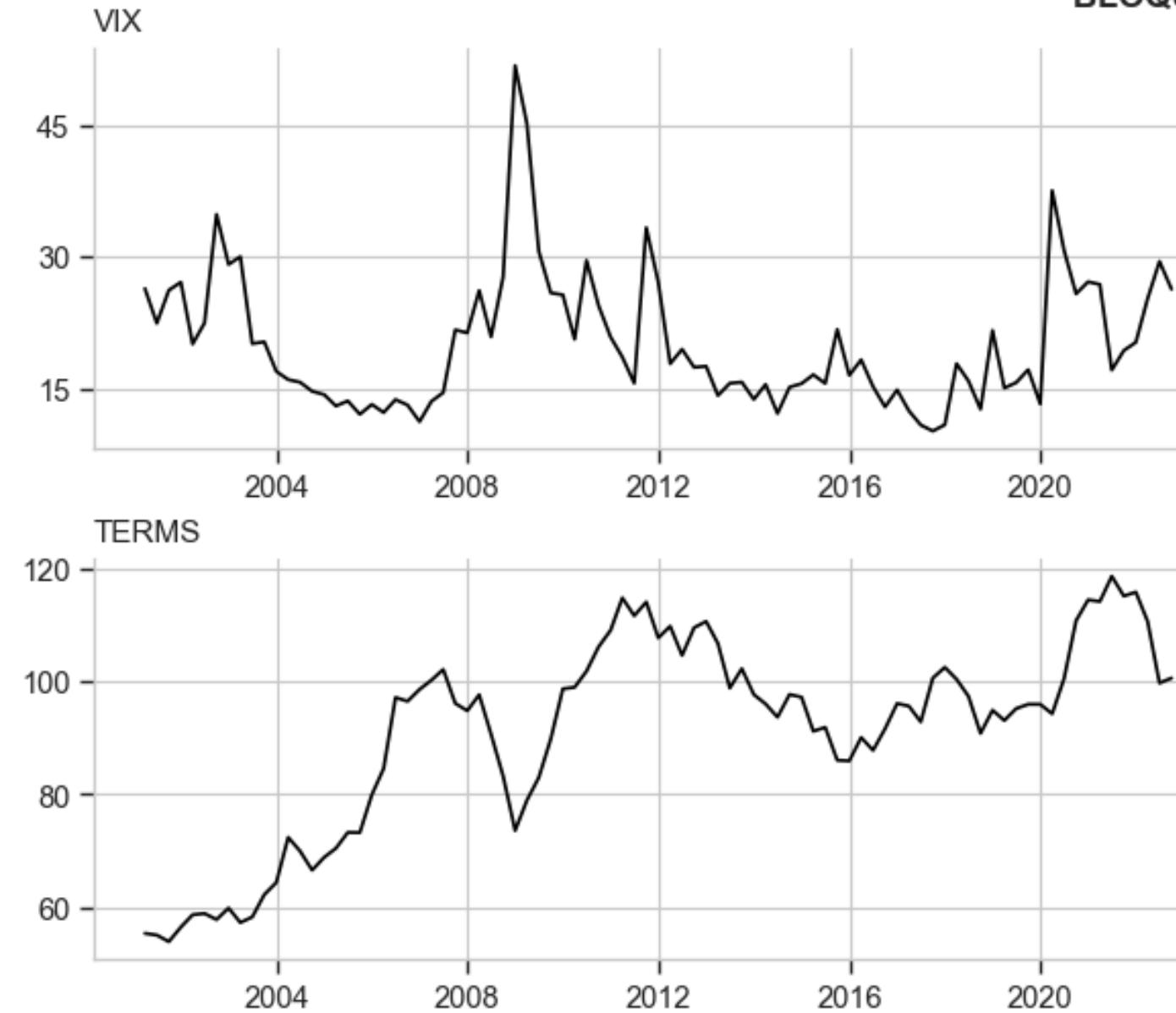


Bloque de doméstico





Bloque exógeno





Series en niveles y variaciones

- Se buscó diferentes formas de estabilidad dado que para las variables de inclusión financiera y bancarias (menos zscore) no habían suficientes datos.
- Los gráficos de los bloques de inclusión financiera y bancario se leen de izquierda a derecha así: niveles, variación entre trimestres, variación anual y variable sin tendencia por medias móviles.
- Las variaciones entre trimestres quita 1 obs; la anual, dada la disponibilidad de datos, 4 obs; y, la de medias móviles, resta 3 obs, dos al inicio y 1 al final.
- Los modelos se estimaron en base a este último método, por lo que el span se redujo a 80.



Estimación modelo VAR



Especificaciones generales

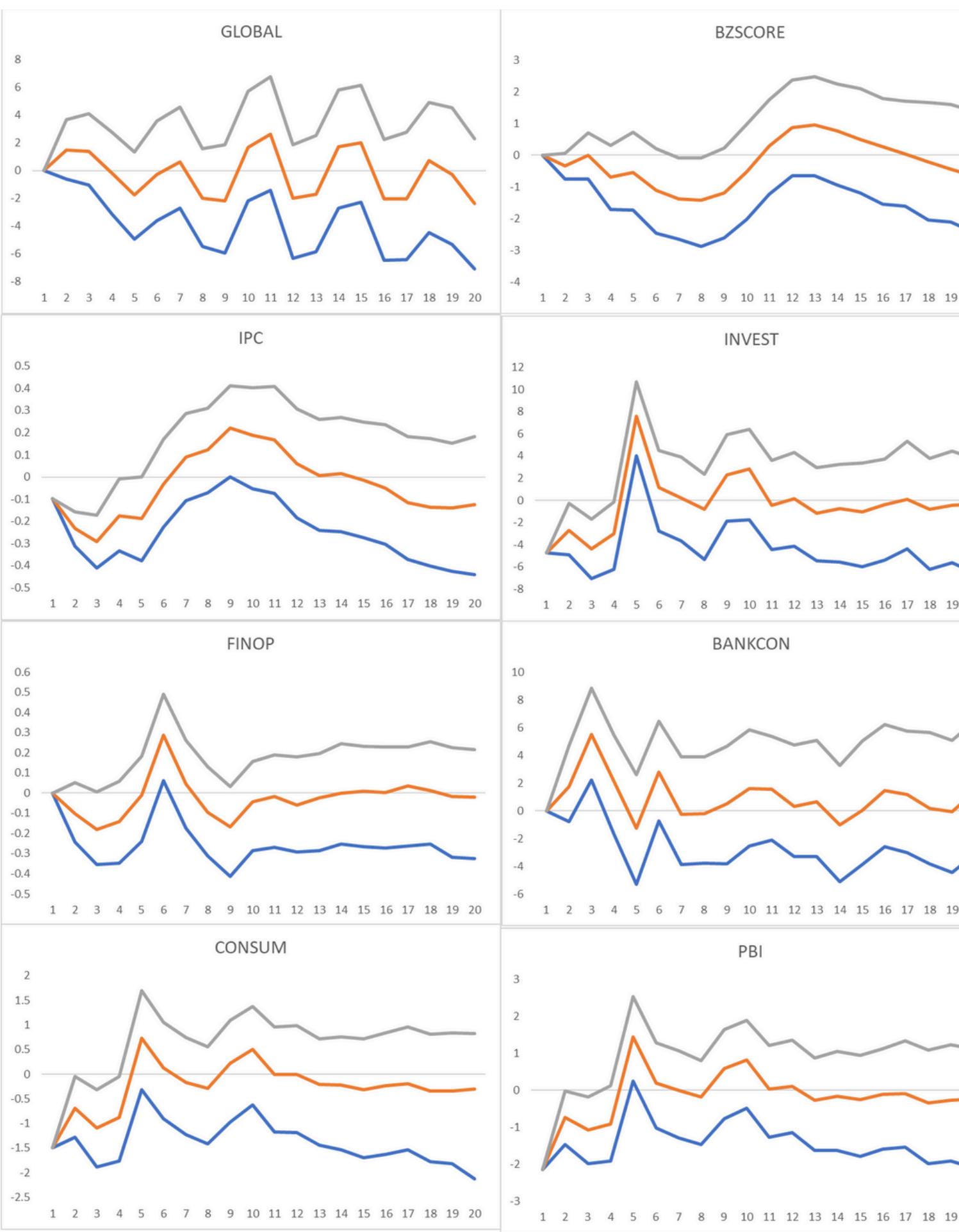
- 4 rezagos, del 2001q3 al 2022q2 (82 obs), constante, bloque exógeno de TERMS (variación anual de términos de intercambio) y VIX (riesgo global en niveles), y 8 variables (sin contar las de inclusión financiera):
 - GLOBAL: solidez bancaria ponderada por riesgo
 - FINOP: deuda bancaria en el extranjero como % del PBI
 - BZSCORE: estabilidad bancaria basado en datos de patrimonio y utilidad
 - BANKCON: concentración bancaria
 - INFLATION: variación anual del IPC
 - CONSUM: variación anual del consumo privado
 - INVEST: variación anual de la inversión bruta fija interna
 - PBI: variación anual del PBI
- Bloque de inclusión financiera:
 - FINDEX: índice de inclusión financiera construido por 2PCA
 - ACCESO: índice de acceso a los ss. financieros construido por PCA
 - USO: índice de uso de ss. financieros construido por PCA
 - PROF: índice de profundidad de ss. financieros construido por PCA



Modelo VAR con FINDEX



Impulso de FINDEX

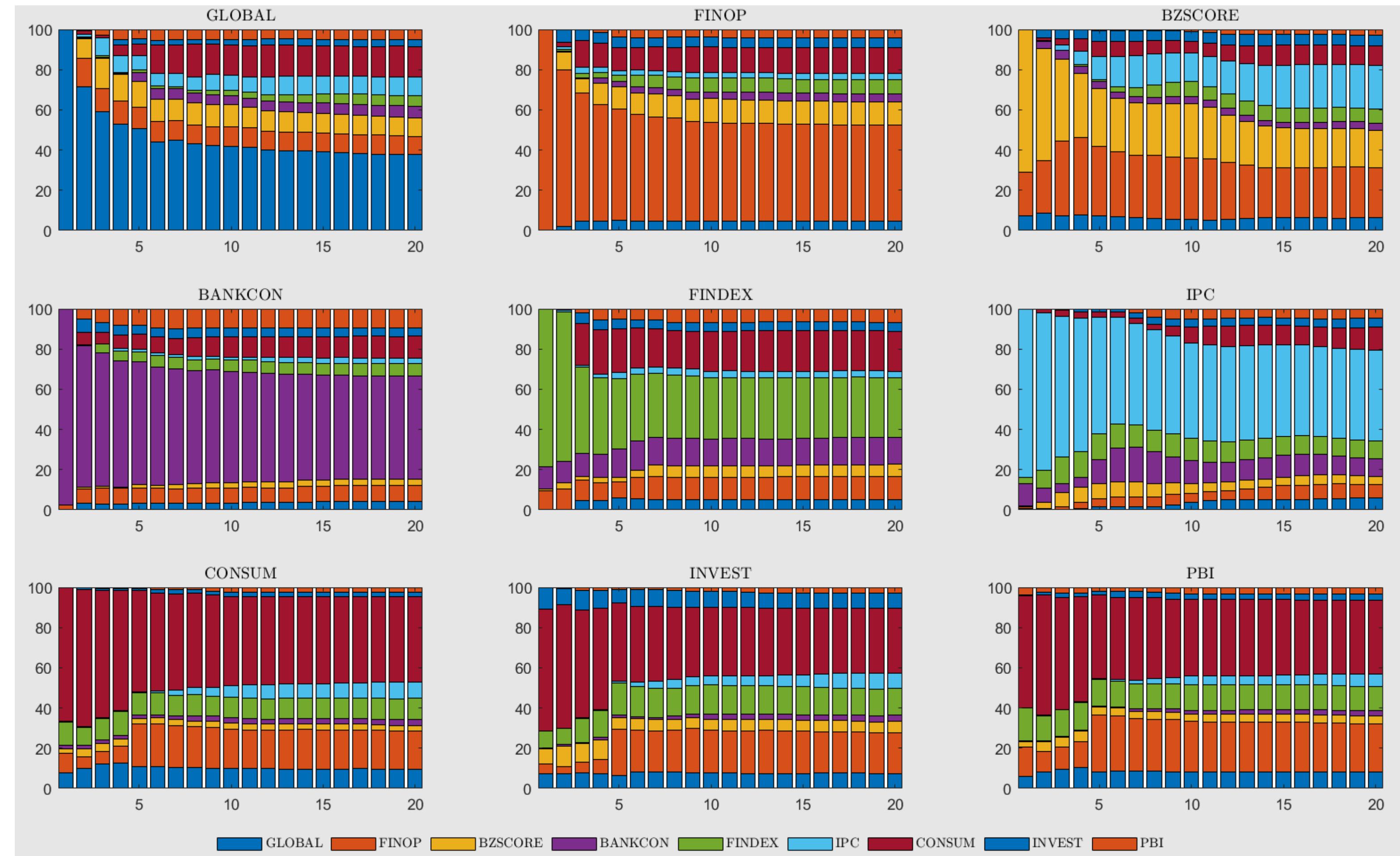


Respuesta de FINDEX





FEVD

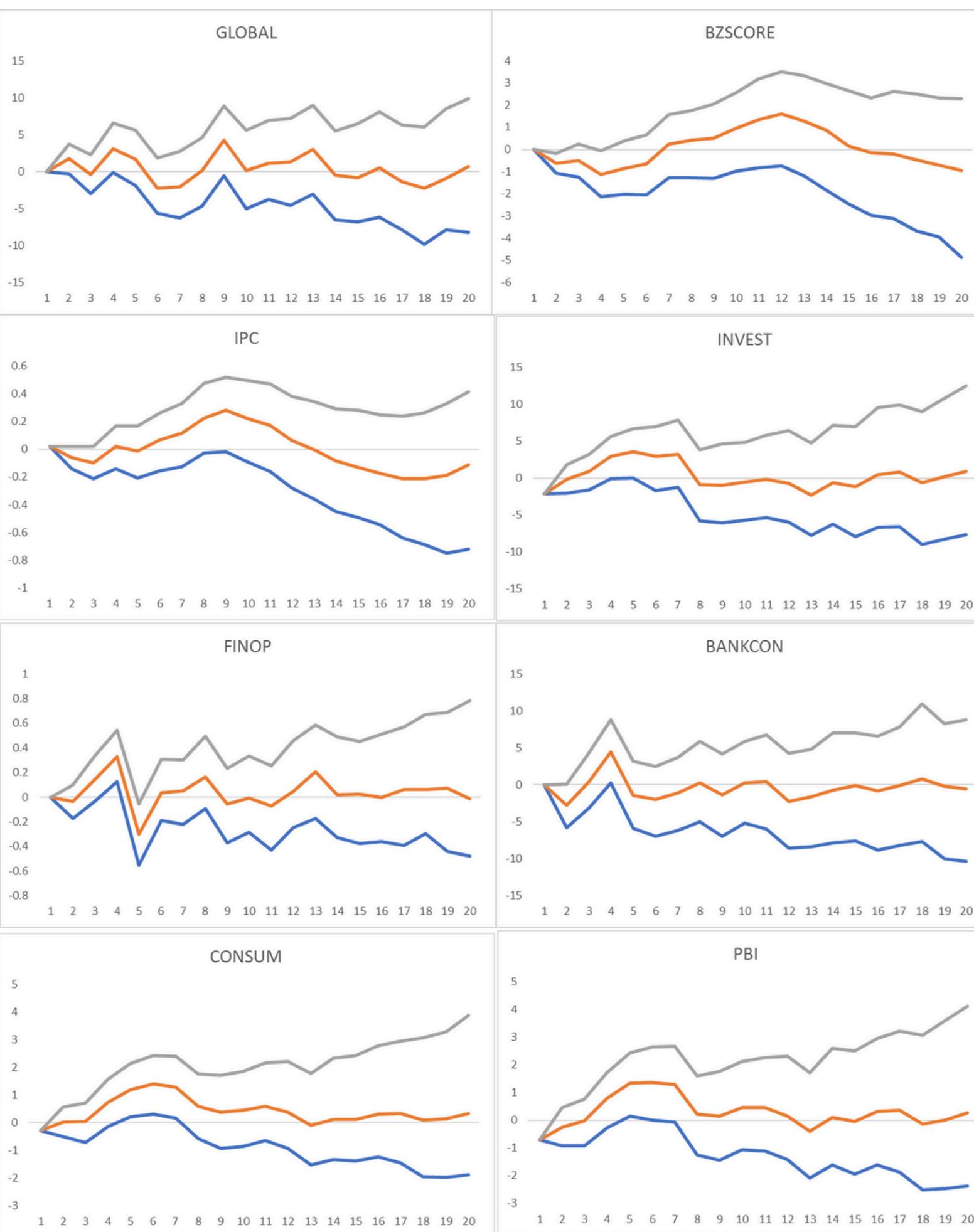




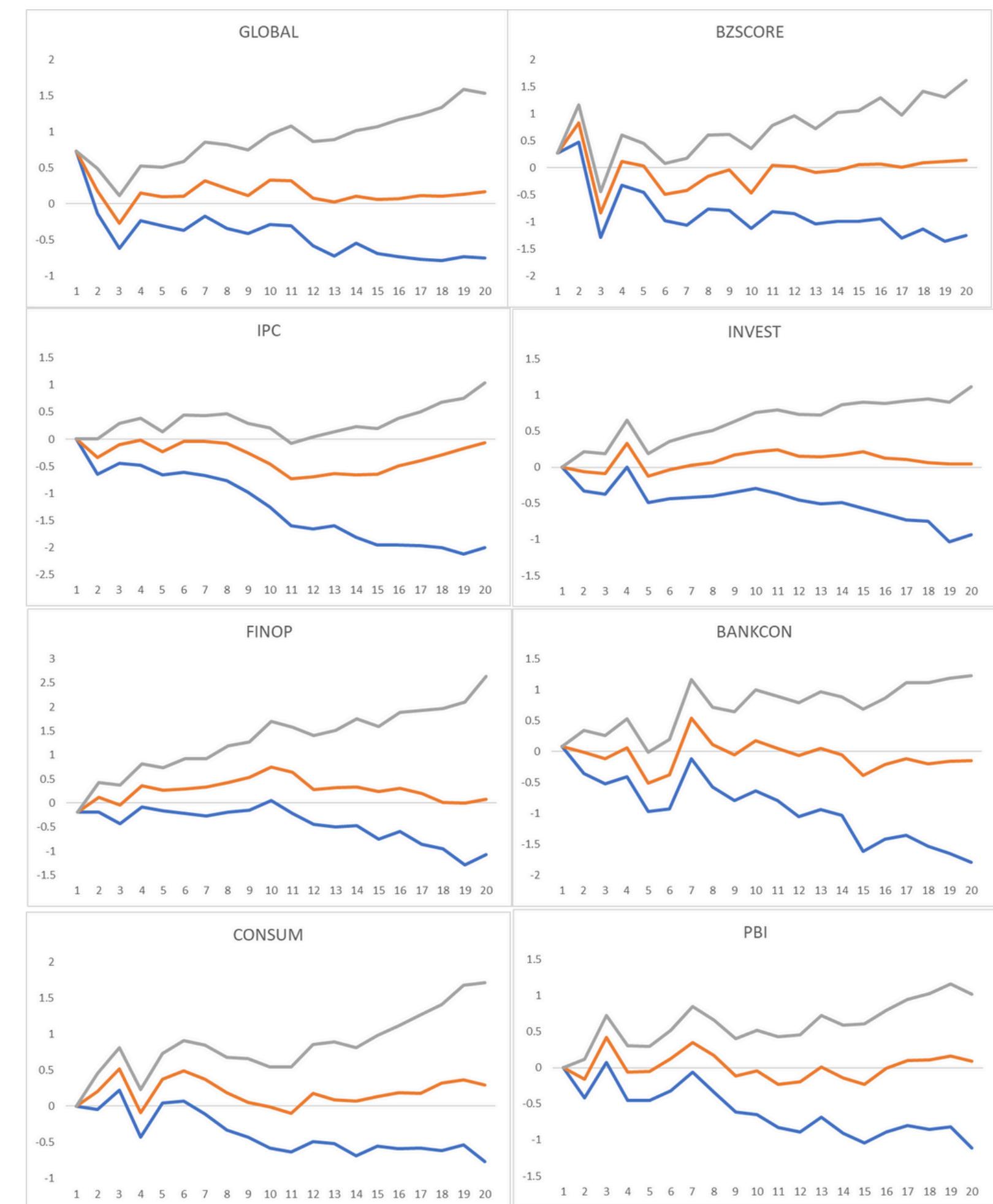
Modelo VAR con ACCESO, PROF y USO



Impulso de ACCESO

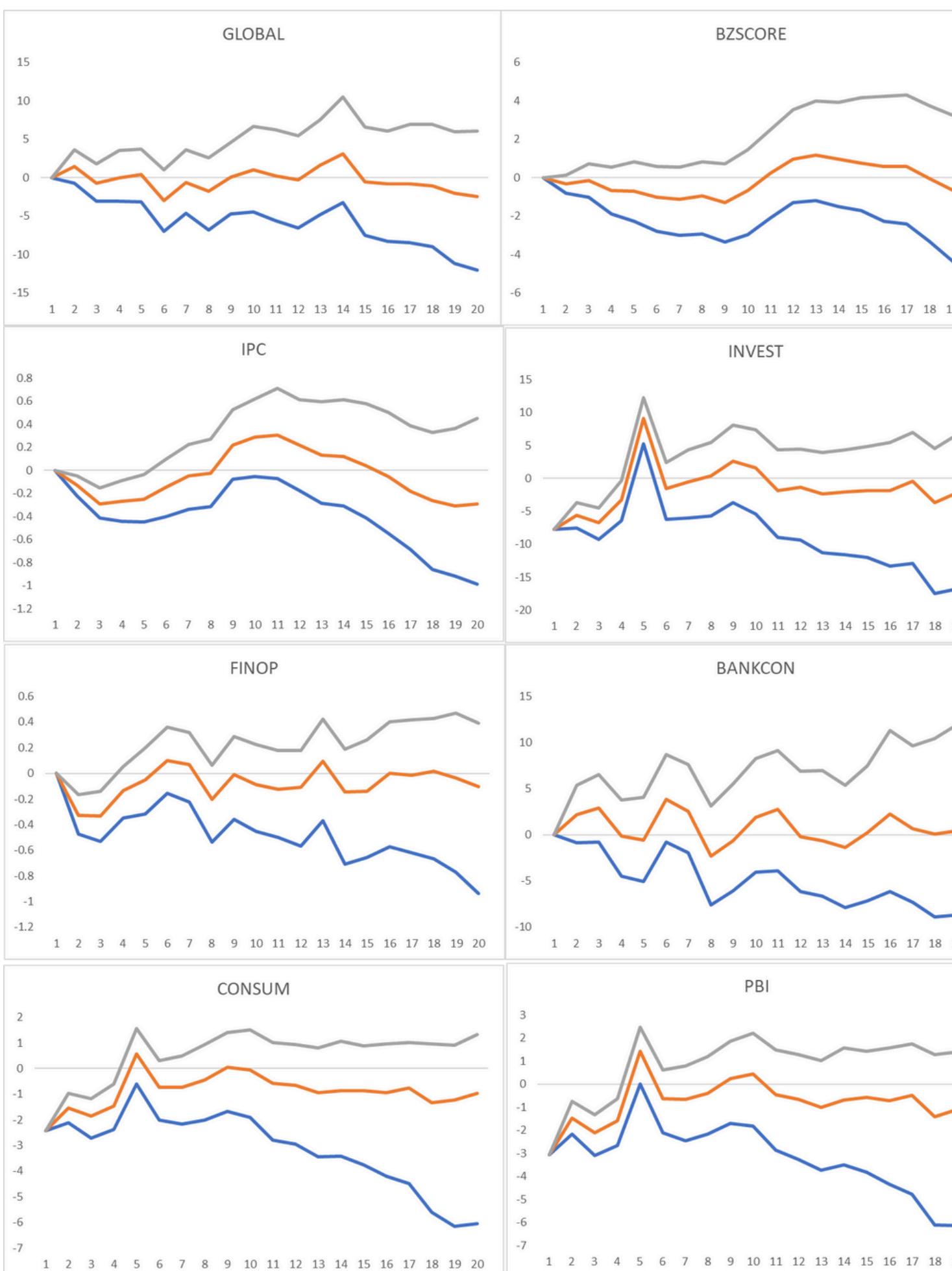


Respuesta de ACCESO





Impulso de PROF

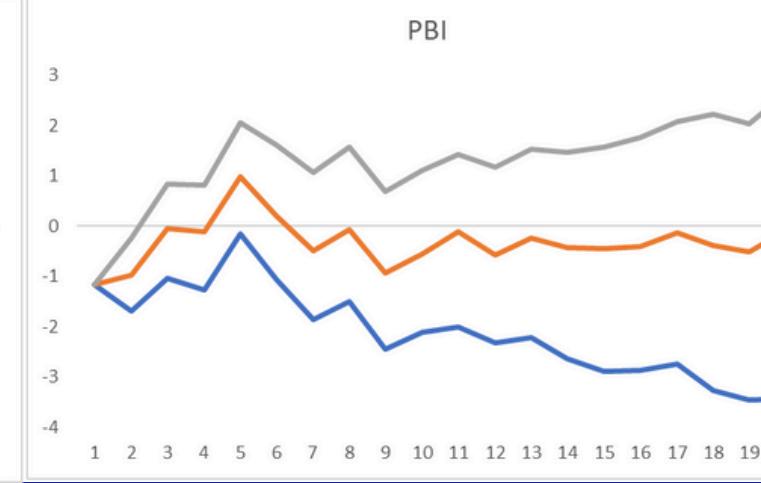
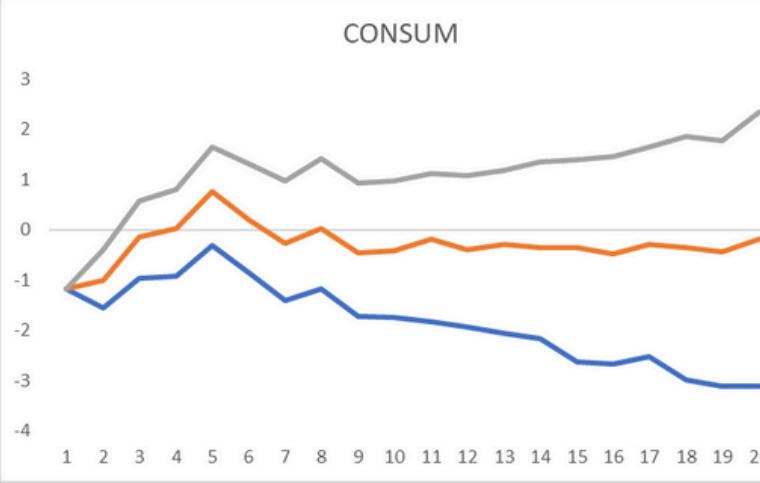
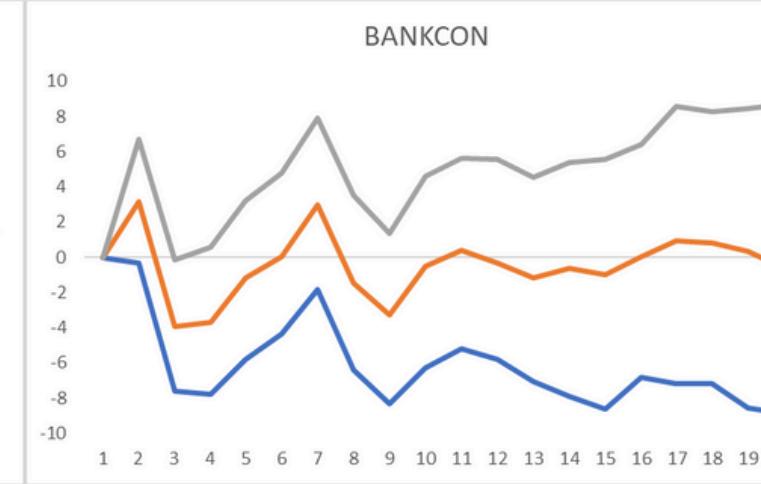
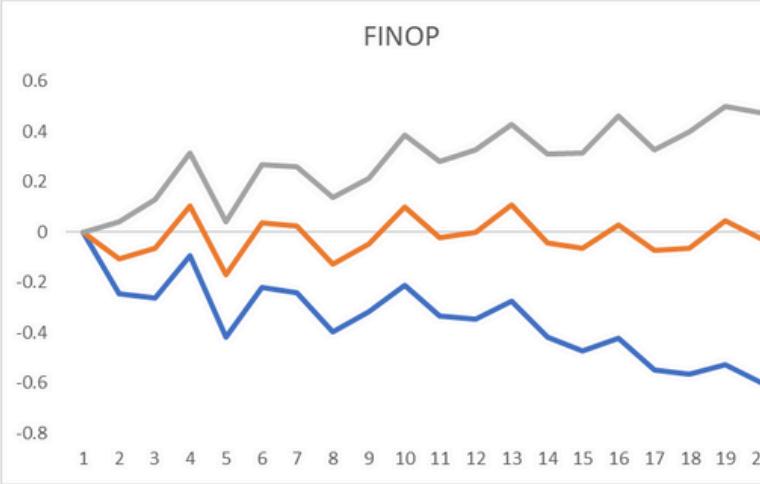
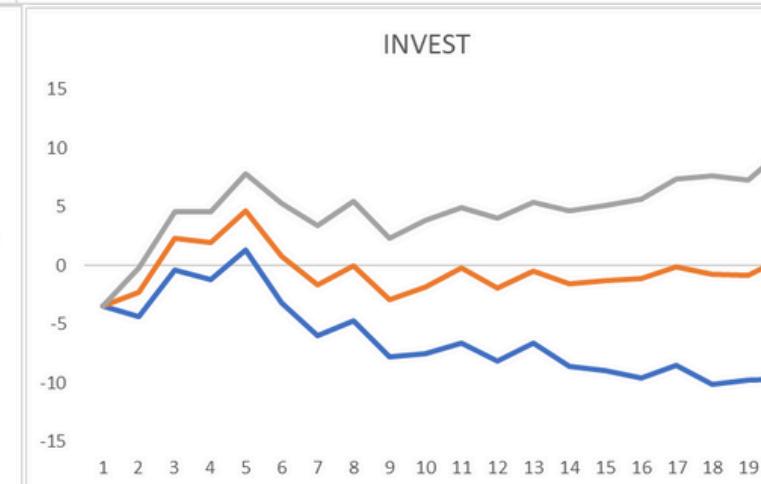
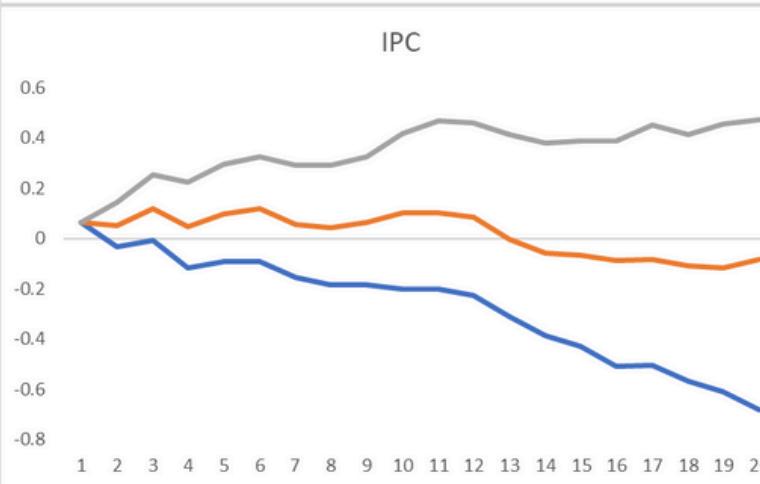
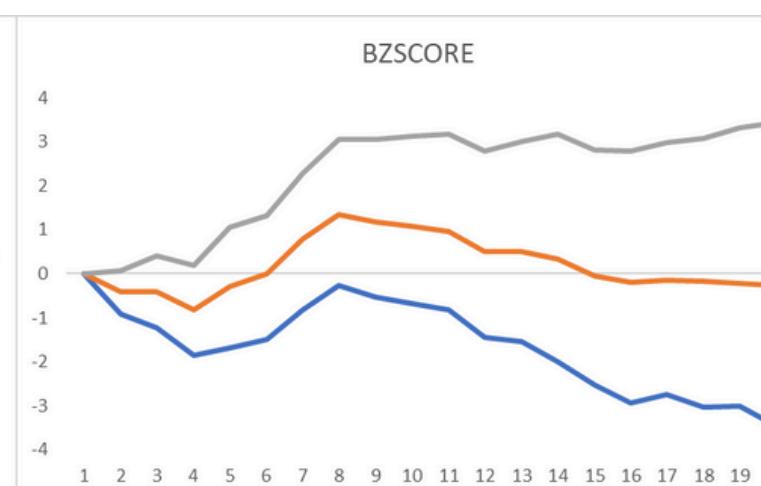
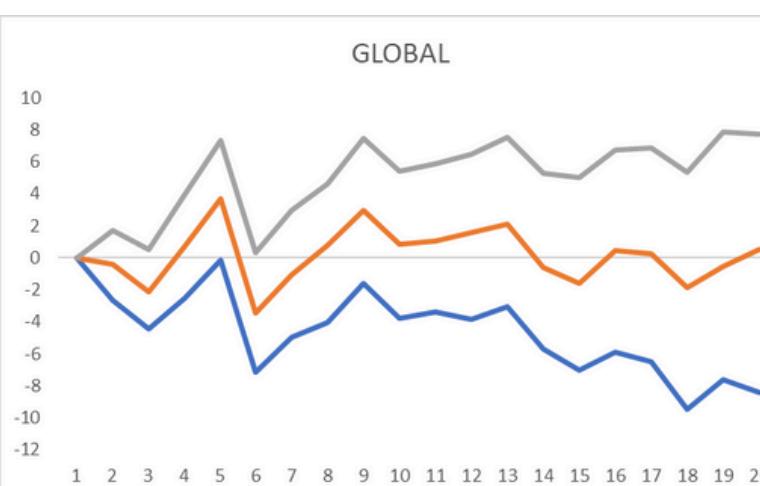


Respuesta de PROF

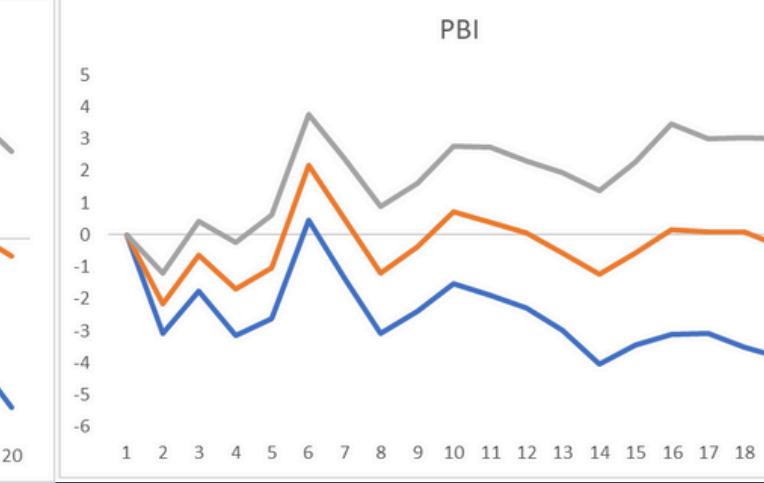
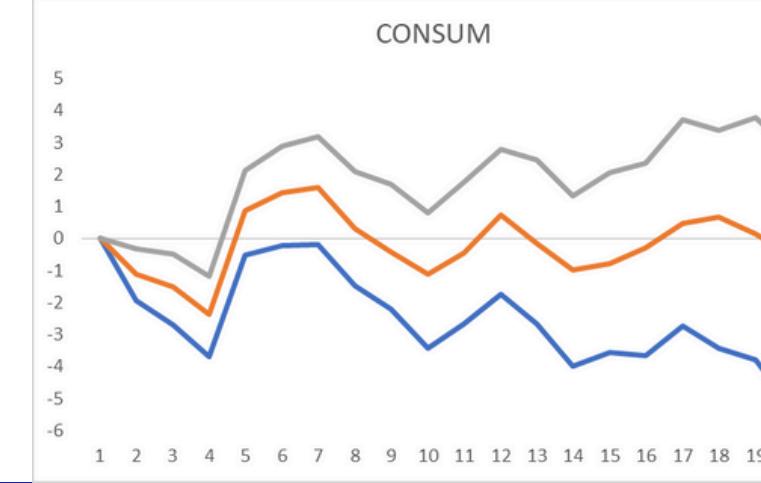
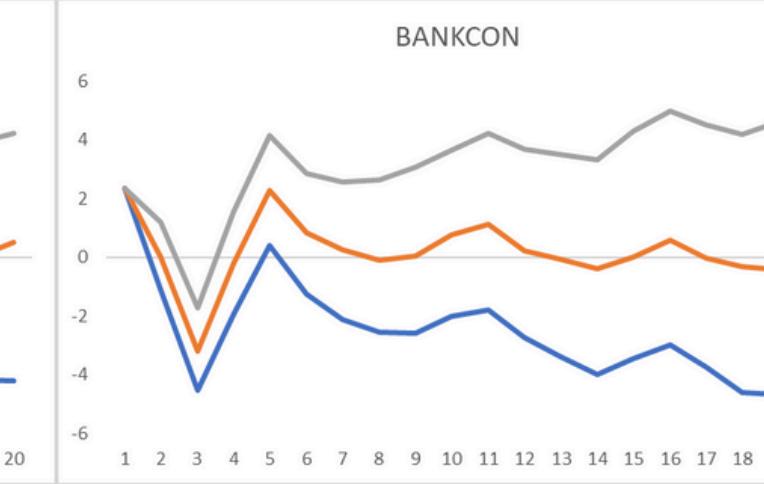
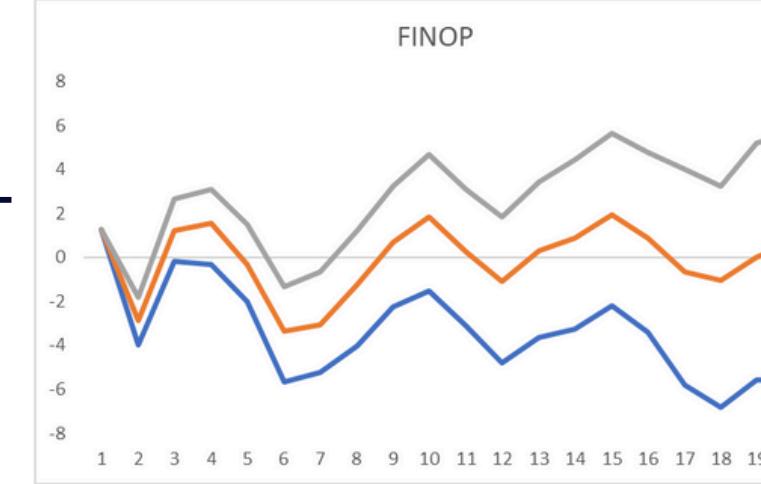
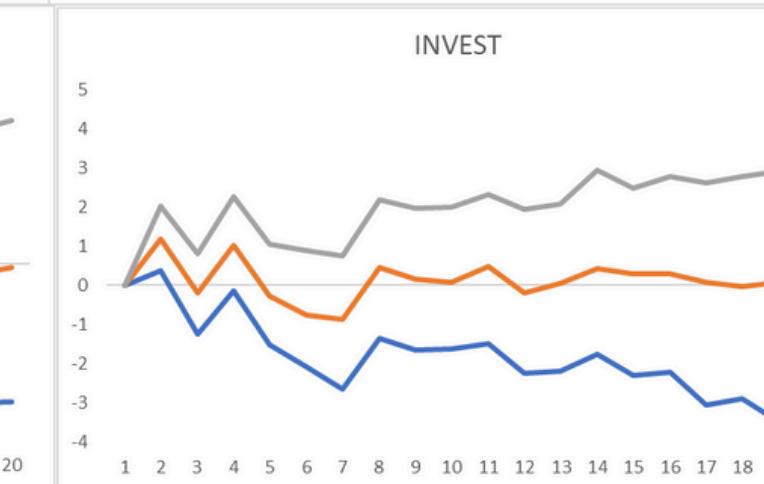
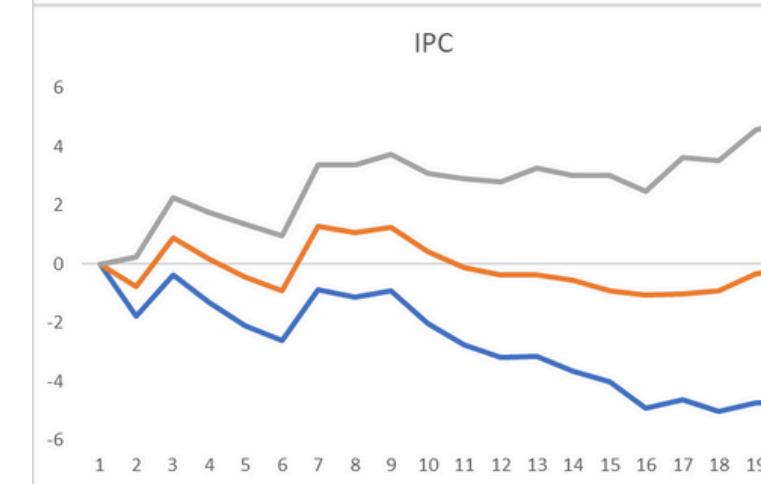
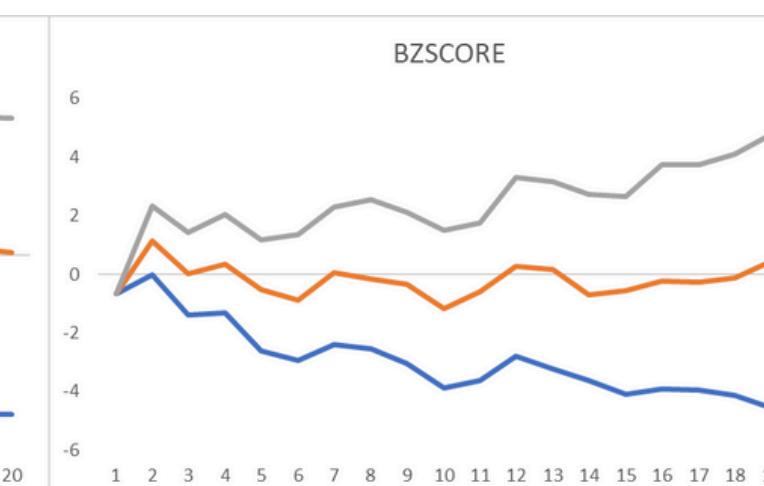
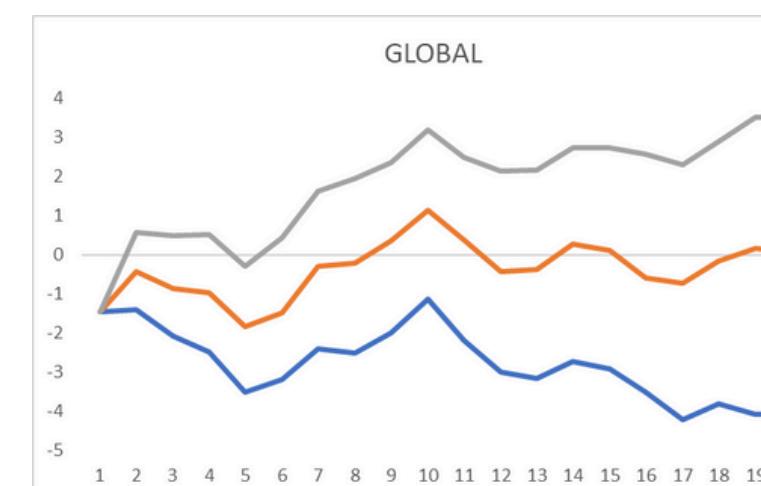




Impulso de USO

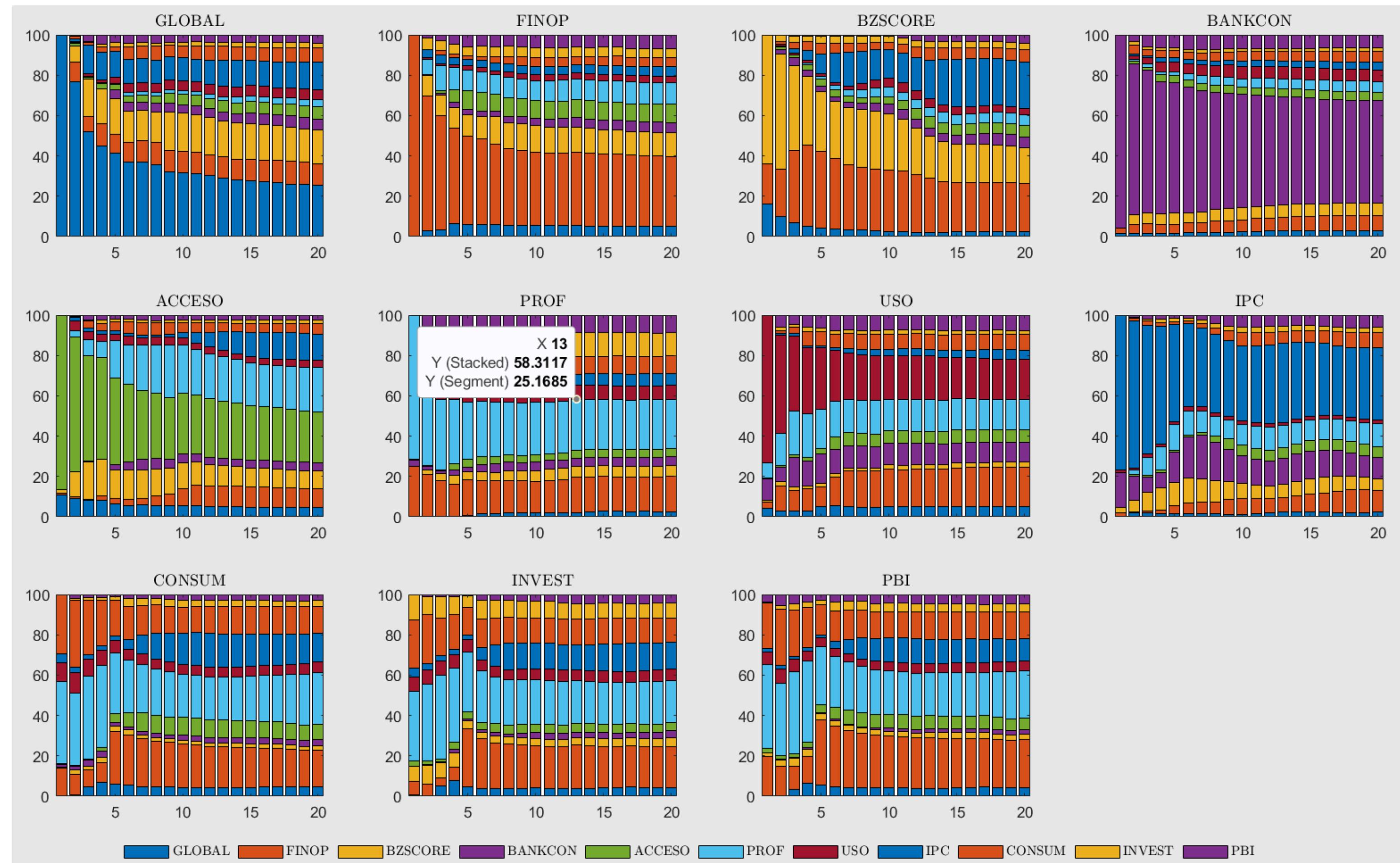


Respuesta de USO





FEVD





Estimación modelo TV BVAR



Especificaciones generales

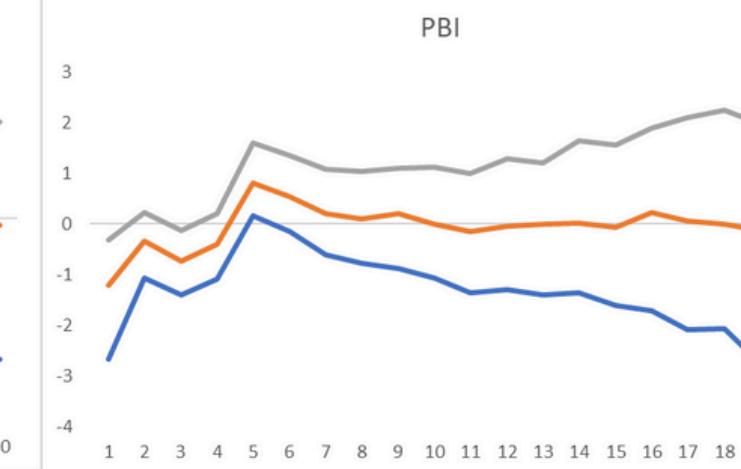
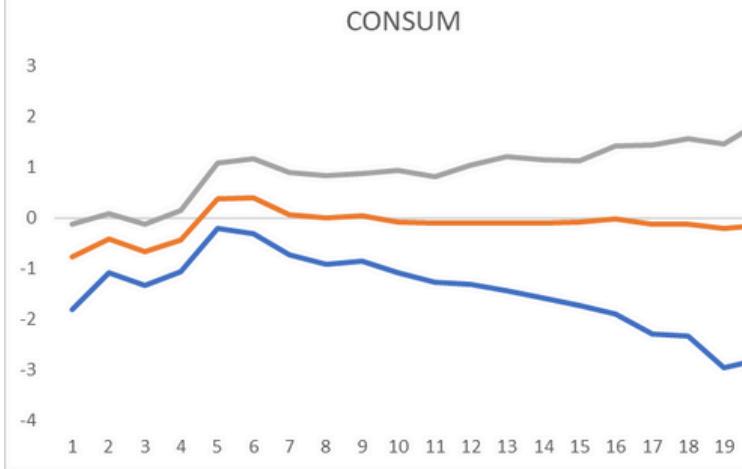
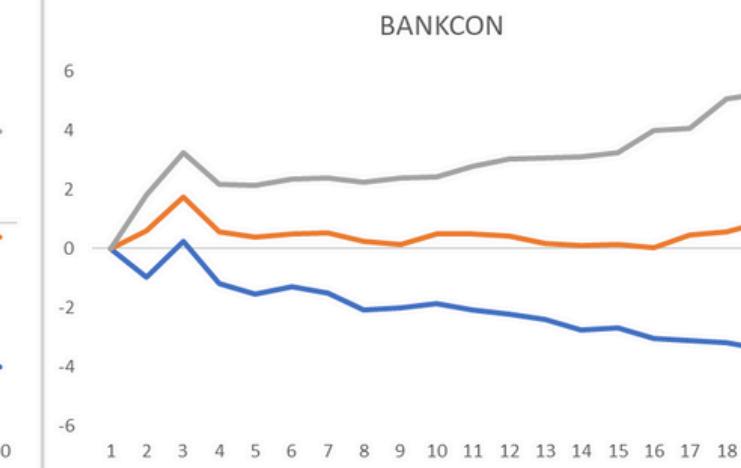
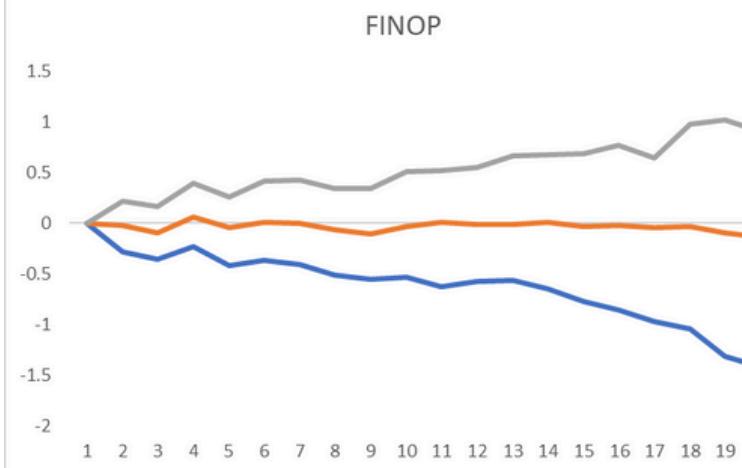
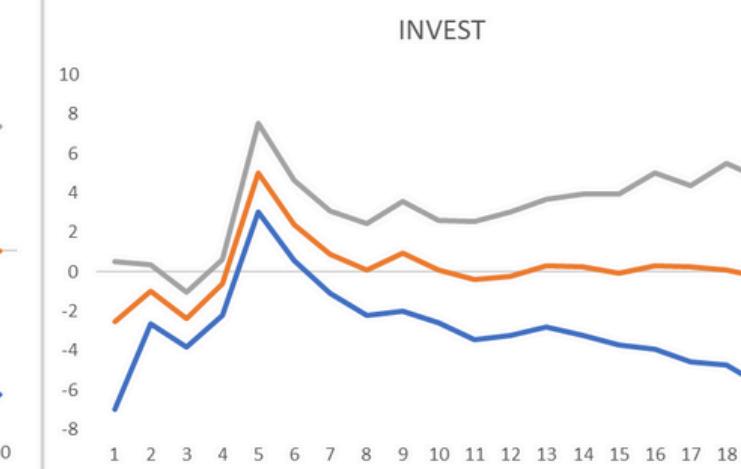
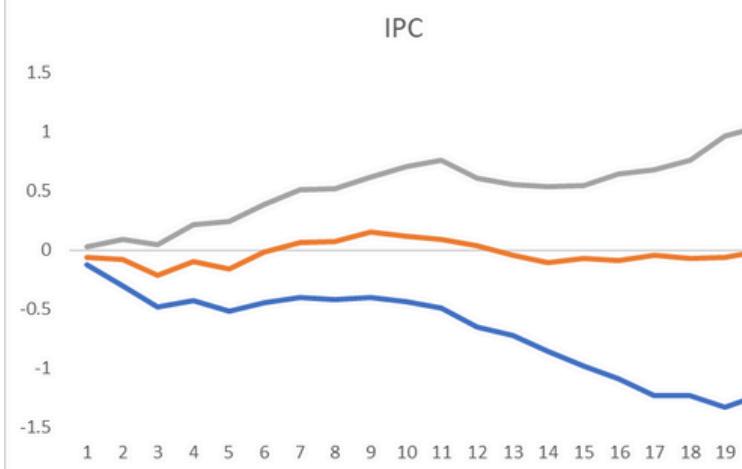
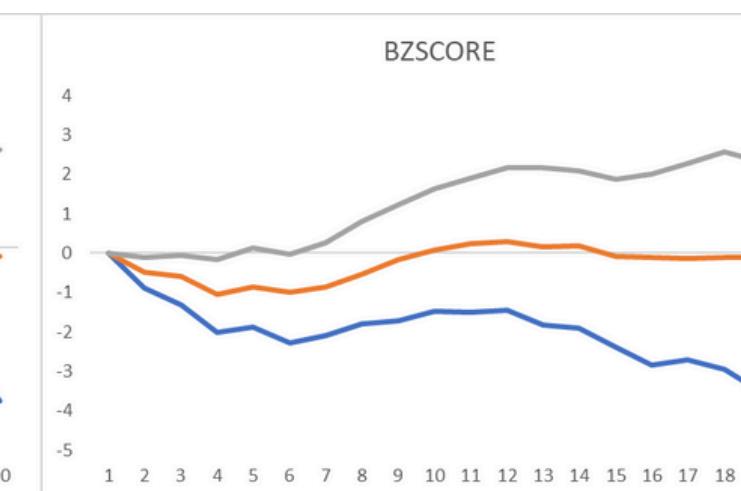
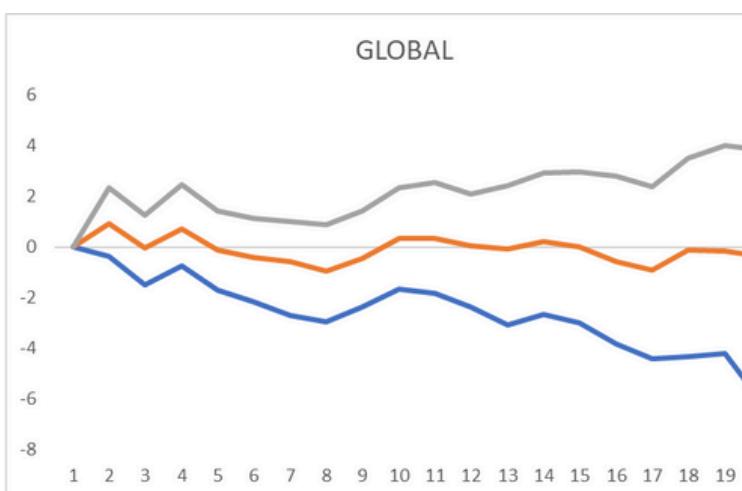
- Mismas que las del VAR clásico, solo señalar:
 - Algoritmo Gibbs Sampling utiliza 1000 simulaciones haciendo burn-in a 100. Ello debido a que las simulaciones afectarían solo los coeficientes posterior, por lo que, para estimar tal cantidad de modelos, se optó por esta especificación.
 - Identificación estructural: Factorización de Choleski.
 - Periodos de IRF's son 20 con I.C. al 68%.



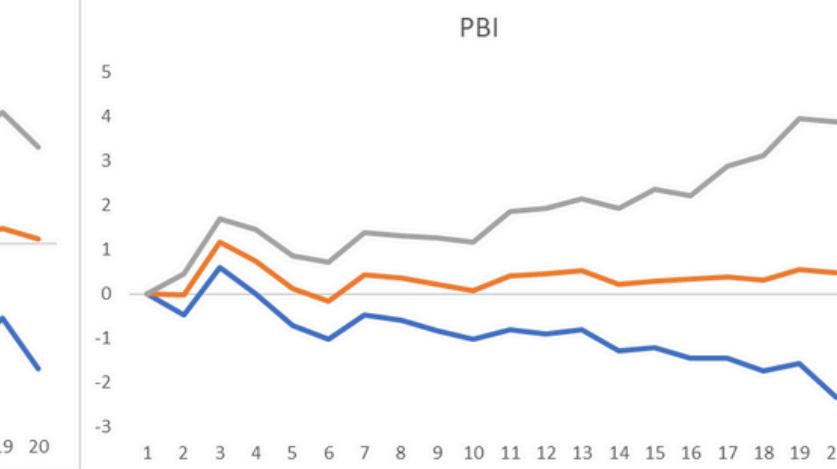
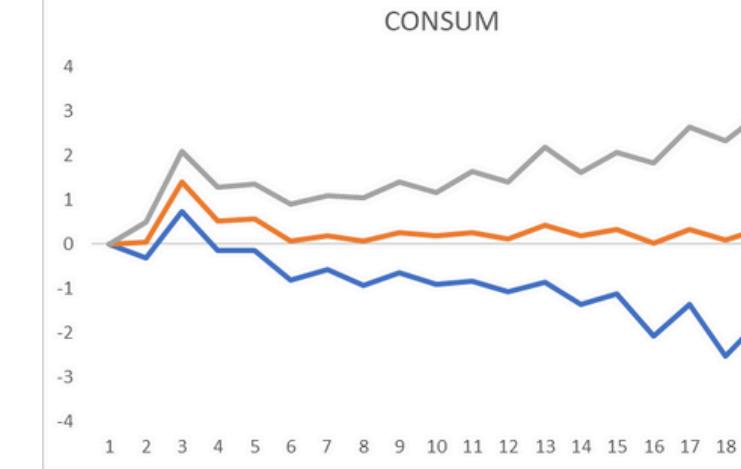
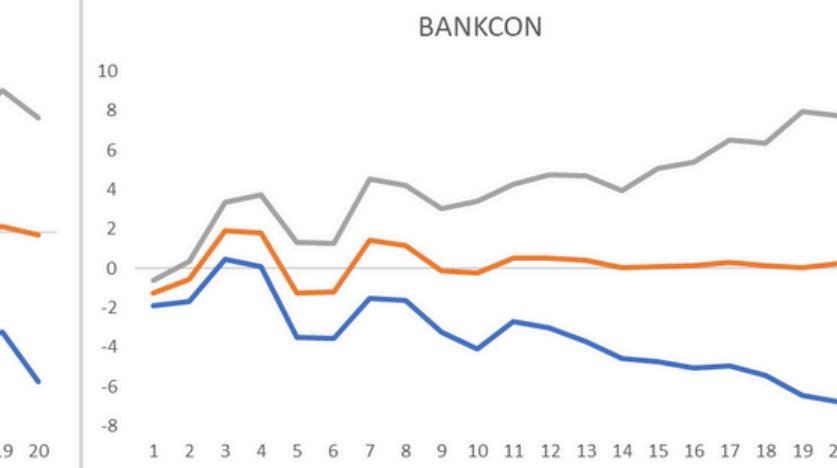
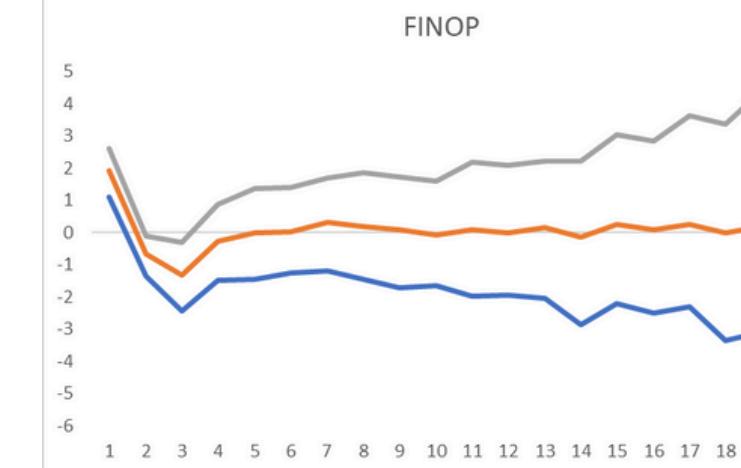
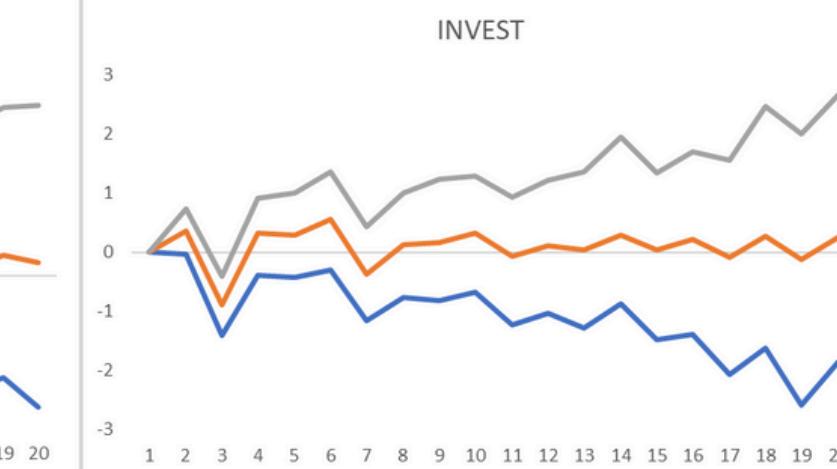
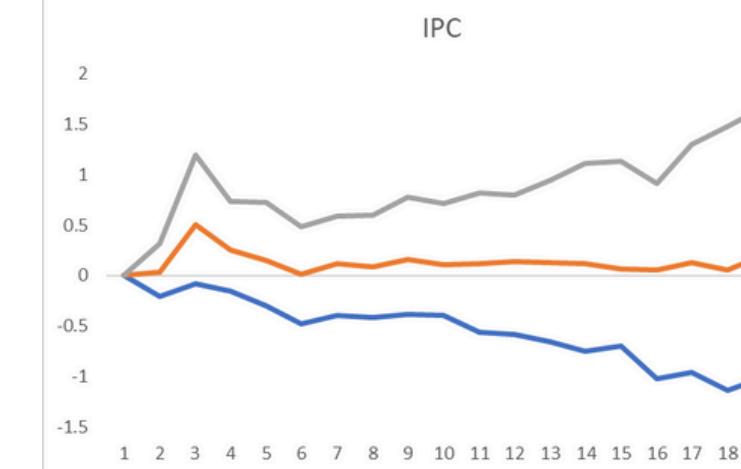
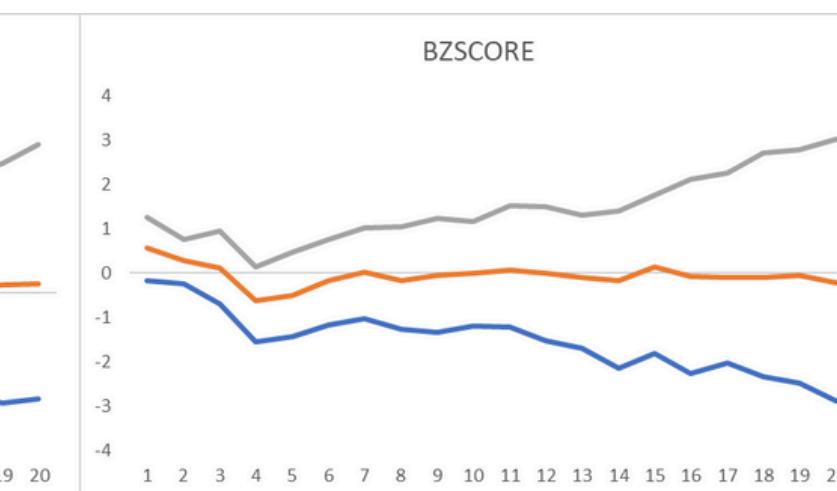
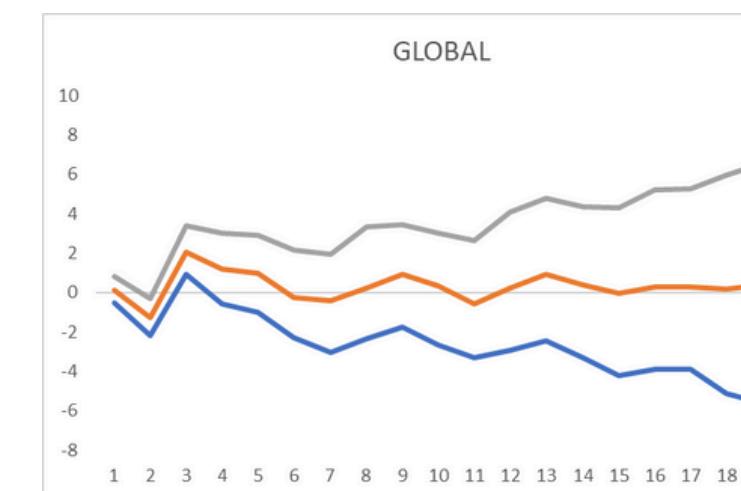
Modelo TV BVAR con FINDEX



Impulso de FINDEX

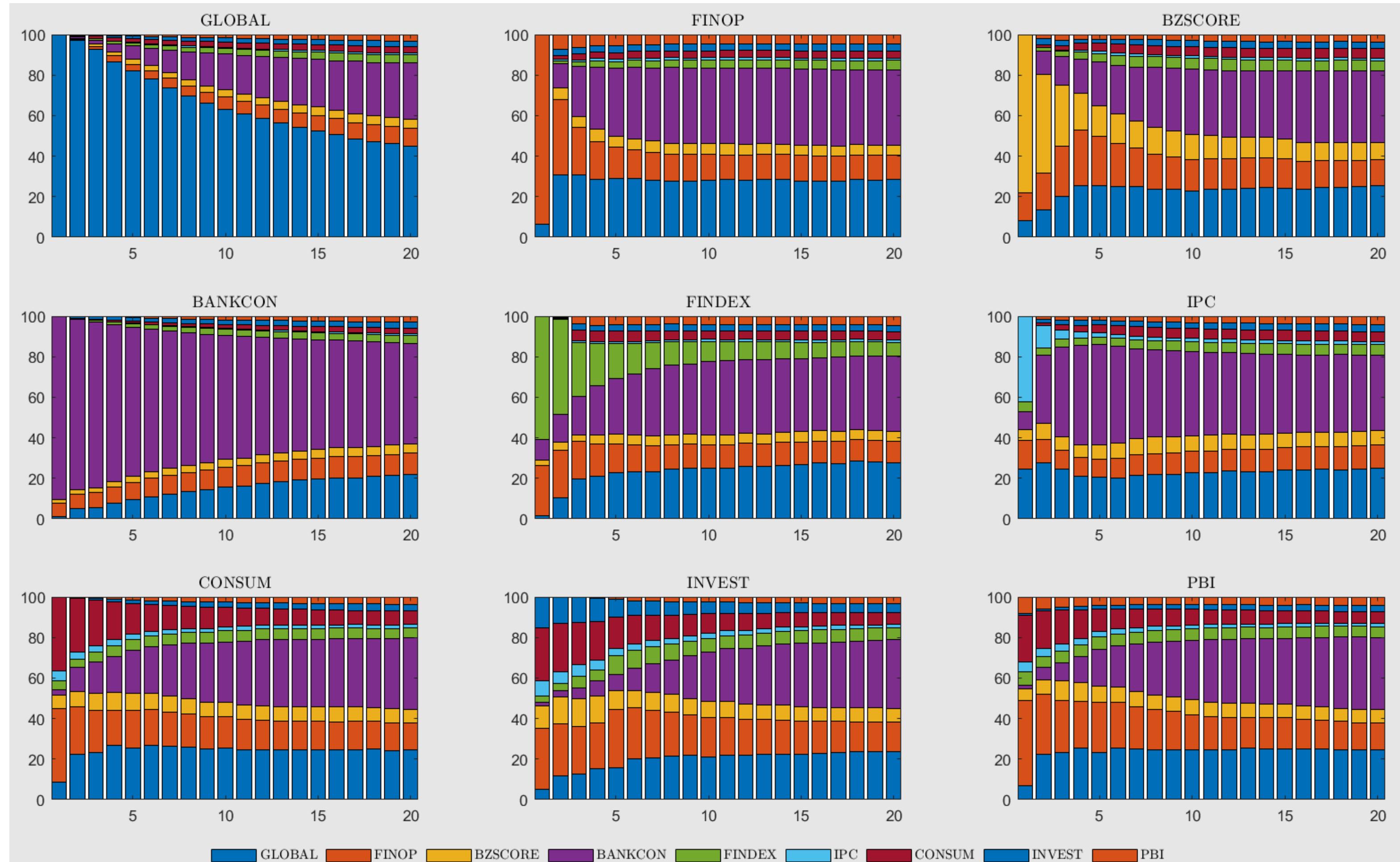


Respuesta de FINDEX





FEVD





Coeficientes Posterior - FINDEX → Variables

Efectos de la Inclusión Financiera - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.643 , 0.784]	(0.36)	0.061	[-0.129 , 0.088]	(0.056)	-0.002
p = 2	[-0.978 , 0.595]	(0.39)	-0.181	[-0.12 , 0.074]	(0.049)	-0.028
p = 3	[-0.583 , 0.881]	(0.361)	0.127	[-0.087 , 0.107]	(0.052)	0.008
p = 4	[-0.934 , 0.493]	(0.349)	-0.215	[-0.127 , 0.08]	(0.051)	-0.035
	FINOP				CONSUM	
p = 1	[-0.179 , 0.087]	(0.068)	-0.045	[-0.177 , 0.271]	(0.117)	0.046
p = 2	[-0.106 , 0.114]	(0.06)	0.004	[-0.413 , 0.047]	(0.116)	-0.195
p = 3	[-0.094 , 0.138]	(0.059)	0.025	[-0.293 , 0.113]	(0.106)	-0.087
p = 4	[-0.182 , 0.056]	(0.057)	-0.062	[-0.137 , 0.322]	(0.111)	0.089
	BZSCORE				INVEST	
p = 1	[-0.253 , 0.168]	(0.11)	-0.029	[-0.805 , 0.666]	(0.361)	-0.049
p = 2	[-0.282 , 0.111]	(0.102)	-0.071	[-1.544 , 0.008]	(0.363)	-0.823
p = 3	[-0.384 , 0.015]	(0.098)	-0.19	[-0.635 , 0.666]	(0.332)	-0.01
p = 4	[-0.049 , 0.314]	(0.09)	0.129	[0.416 , 1.732]	(0.339)	1.074
	BANKCON				PBI	
p = 1	[-0.597 , 0.963]	(0.39)	0.215	[-0.192 , 0.335]	(0.137)	0.061
p = 2	[-0.029 , 1.483]	(0.398)	0.741	[-0.475 , 0.084]	(0.137)	-0.222
p = 3	[-0.406 , 1.119]	(0.408)	0.335	[-0.326 , 0.184]	(0.129)	-0.042
p = 4	[-0.078 , 1.54]	(0.402)	0.692	[0.022 , 0.507]	(0.125)	0.269



Coeficientes Posterior - Variables → FINDEX

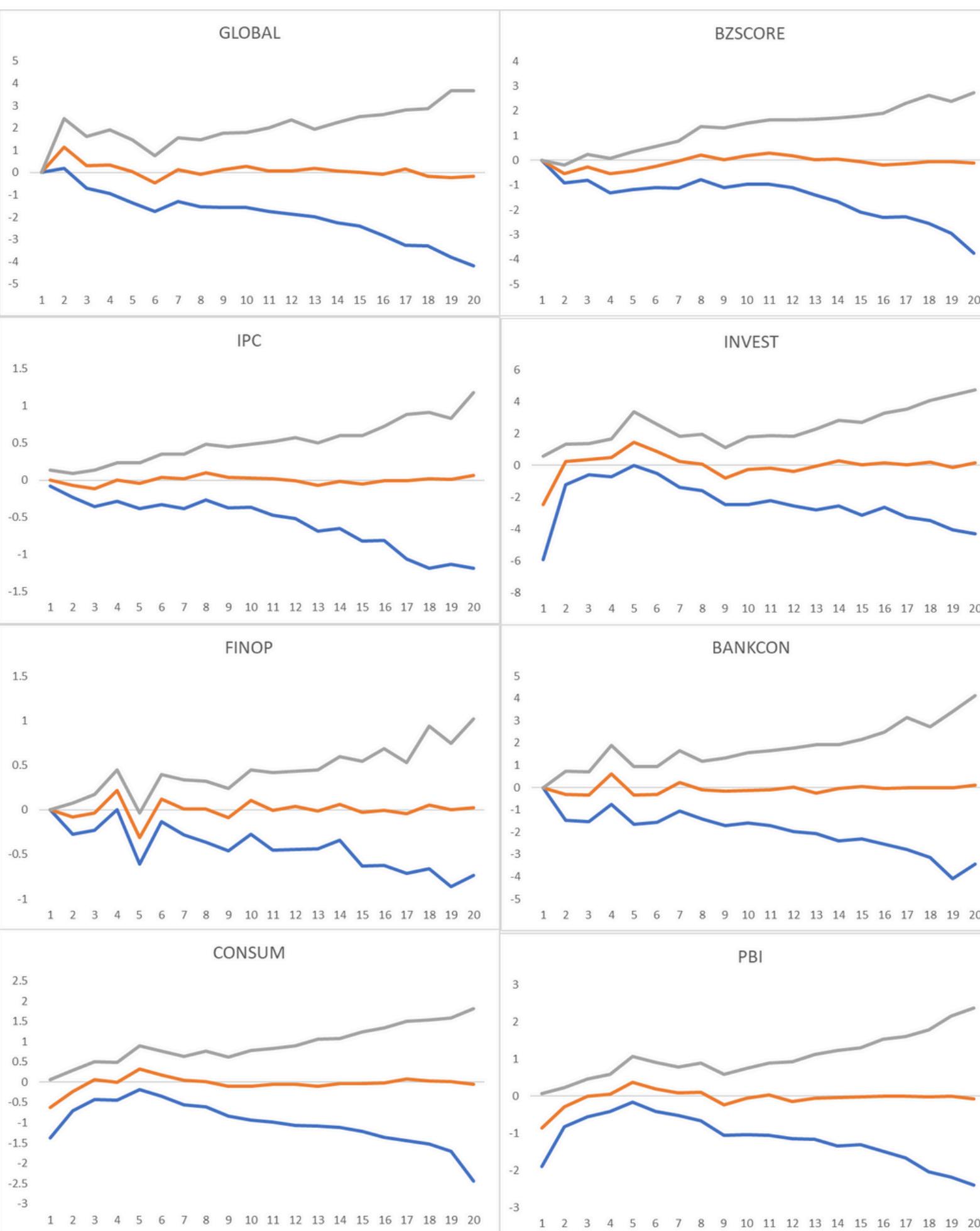
Efectos sobre la Inclusión Financiera - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.177 , 0.025]	(0.05)	-0.022	[-1.168 , 1.005]	(0.546)	-0.084
p = 2	[-0.054 , 0.142]	(0.048)	0.014	[-0.794 , 1.191]	(0.521)	0.226
p = 3	[-0.129 , 0.067]	(0.05)	-0.599	[-1.525 , 0.747]	(0.566)	-0.438
p = 4	[-0.085 , 0.107]	(0.05)	0.299	[-0.955 , 0.825]	(0.462)	-0.076
	FINOP				CONSUM	
p = 1	[-1.559 , 0.259]	(0.46)	-0.599	[-0.918 , 0.617]	(0.391)	-0.195
p = 2	[-0.651 , 1.134]	(0.458)	0.299	[-0.249 , 1.403]	(0.419)	0.625
p = 3	[-0.533 , 1.331]	(0.477)	0.428	[-1.53 , -0.042]	(0.363)	-0.733
p = 4	[-0.825 , 1.025]	(0.473)	-0.014	[-1.014 , 0.453]	(0.357)	-0.268
	BZSCORE				INVEST	
p = 1	[-0.147 , 0.536]	(0.176)	0.179	[-0.099 , 0.21]	(0.08)	0.064
p = 2	[-0.521 , 0.418]	(0.224)	-0.03	[-0.337 , -0.008]	(0.082)	-0.181
p = 3	[-0.494 , 0.37]	(0.218)	-0.068	[-0.147 , 0.192]	(0.087)	0.033
p = 4	[-0.2 , 0.416]	(0.161)	0.095	[-0.131 , 0.181]	(0.08)	0.029
	BANKCON				PBI	
p = 1	[-0.139 , 0.076]	(0.055)	-0.026	[-0.661 , 0.703]	(0.354)	-0.017
p = 2	[-0.03 , 0.189]	(0.057)	0.082	[-0.069 , 1.373]	(0.369)	0.63
p = 3	[-0.095 , 0.131]	(0.057)	0.011	[-0.388 , 1.108]	(0.366)	0.385
p = 4	[-0.099 , 0.131]	(0.057)	0.014	[-0.601 , 0.922]	(0.377)	0.096



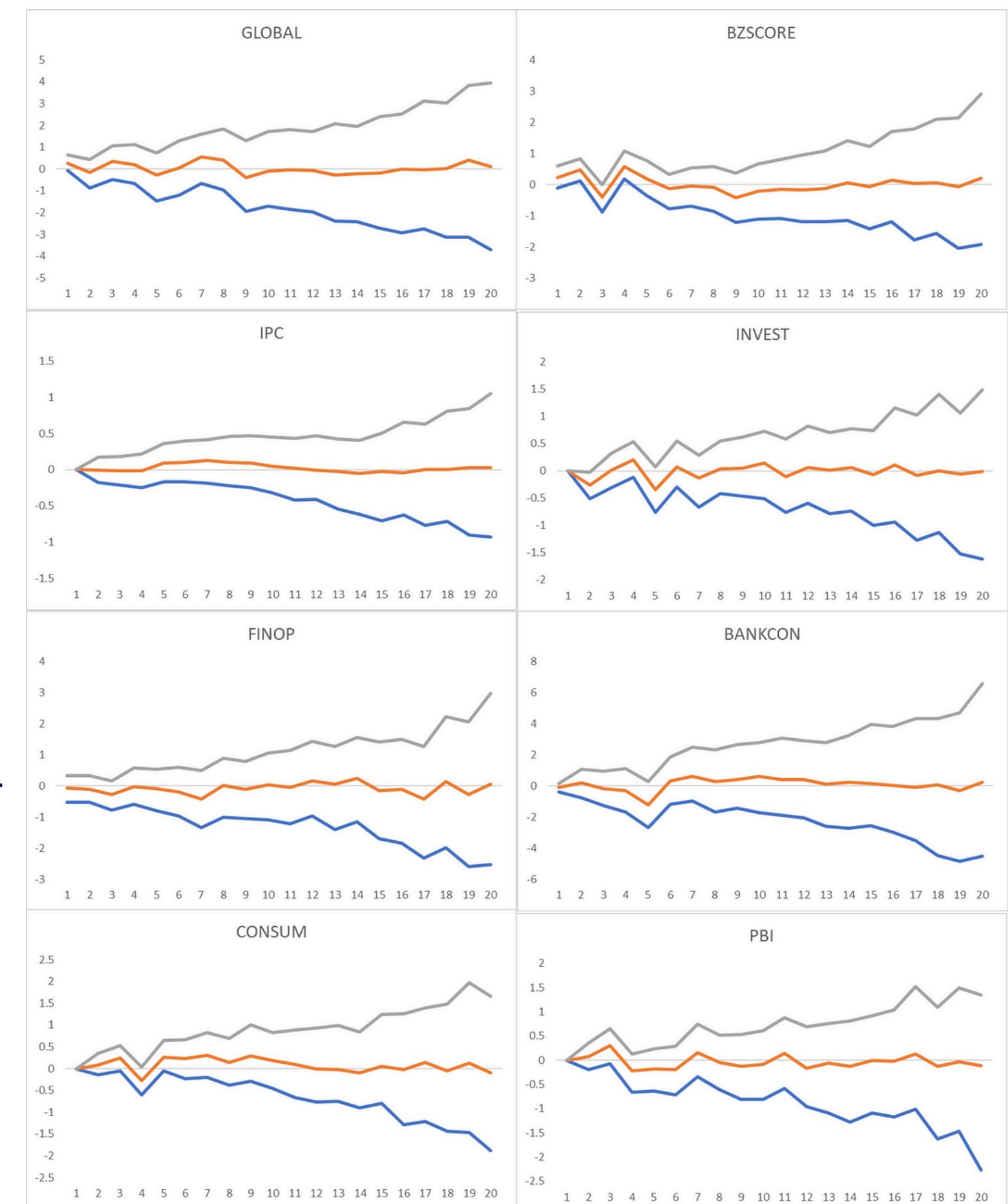
Modelo TV BVAR con ACCESO



Impulso de ACCESO

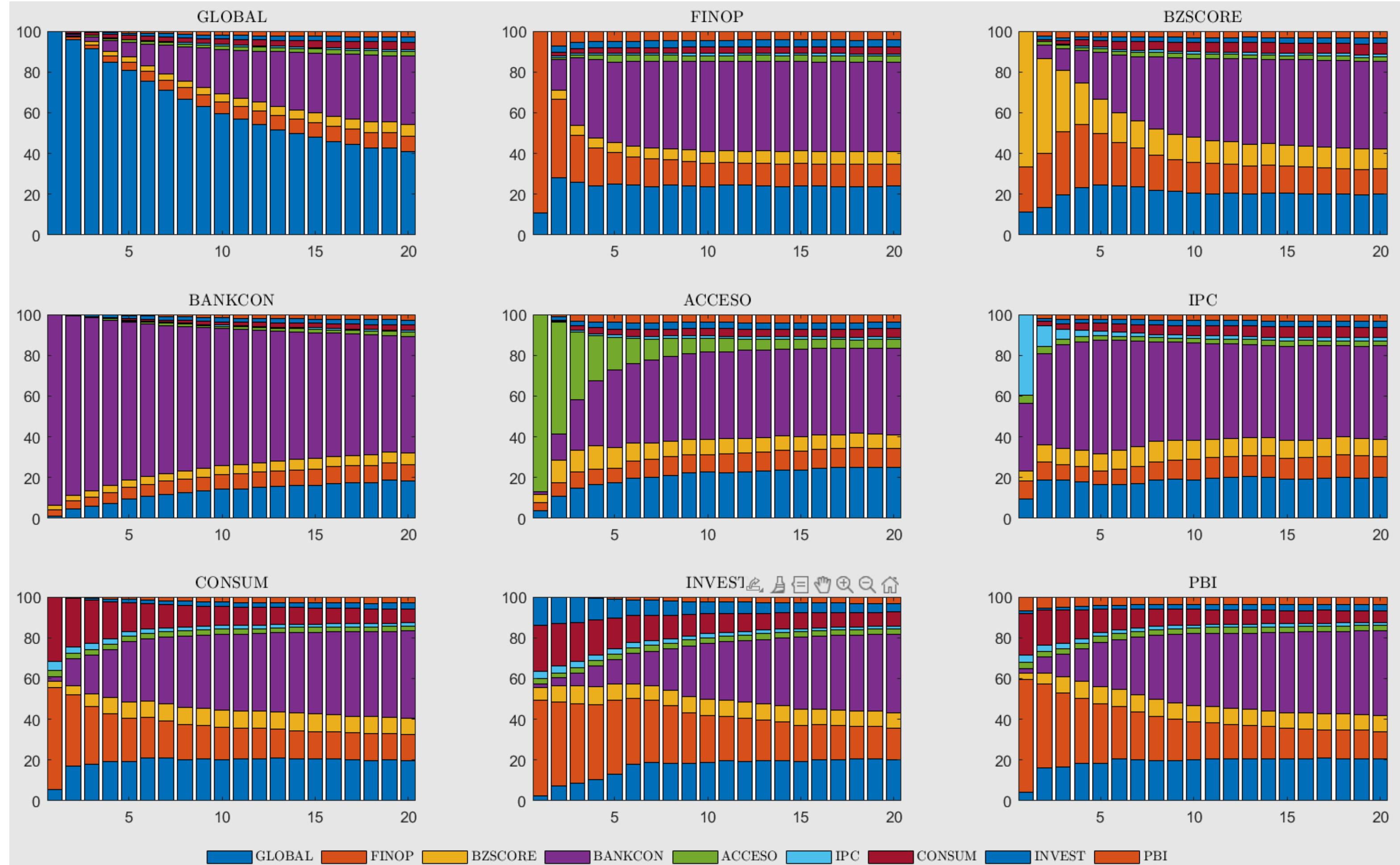


Respuesta de ACCESO





FEVD





Coeficientes Posterior - ACCESO → Variables

Efectos de la Dimensión de Acceso - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.557 , 1.627]	(0.556)	0.446	[-0.188 , 0.139]	(0.085)	-0.023
p = 2	[-1.06 , 1.262]	(0.582)	0.193	[-0.229 , 0.132]	(0.09)	-0.045
p = 3	[-0.603 , 1.553]	(0.575)	0.41	[-0.1 , 0.244]	(0.09)	0.078
p = 4	[-0.858 , 1.419]	(0.588)	0.209	[-0.172 , 0.186]	(0.095)	0.007
	FINOP				CONSUM	
p = 1	[-0.226 , 0.142]	(0.095)	-0.047	[-0.234 , 0.48]	(0.182)	0.132
p = 2	[-0.268 , 0.11]	(0.098)	-0.098	[-0.304 , 0.431]	(0.182)	0.087
p = 3	[-0.037 , 0.352]	(0.099)	0.156	[-0.316 , 0.435]	(0.188)	0.059
p = 4	[-0.383 , 0.004]	(0.103)	-0.183	[-0.323 , 0.365]	(0.176)	0.047
	BZSCORE				INVEST	
p = 1	[-0.593 , 0.043]	(0.166)	-0.277	[-0.528 , 1.631]	(0.535)	0.573
p = 2	[-0.144 , 0.588]	(0.19)	0.216	[-1.202 , 0.819]	(0.526)	-0.147
p = 3	[-0.675 , 0.119]	(0.197)	-0.257	[-1.037 , 1.086]	(0.551)	0.123
p = 4	[-0.312 , 0.449]	(0.19)	0.07	[-0.914 , 1.146]	(0.551)	0.218
	BANKCON				PBI	
p = 1	[-1.22 , 0.945]	(0.587)	-0.108	[-0.34 , 0.473]	(0.21)	0.065
p = 2	[-1.343 , 0.936]	(0.6)	-0.21	[-0.439 , 0.372]	(0.213)	-0.067
p = 3	[-0.955 , 1.471]	(0.622)	0.21	[-0.484 , 0.428]	(0.228)	-0.023
p = 4	[-1.616 , 0.765]	(0.601)	-0.23	[-0.474 , 0.494]	(0.233)	0.037



Coeficientes Posterior - Variables → ACCESO

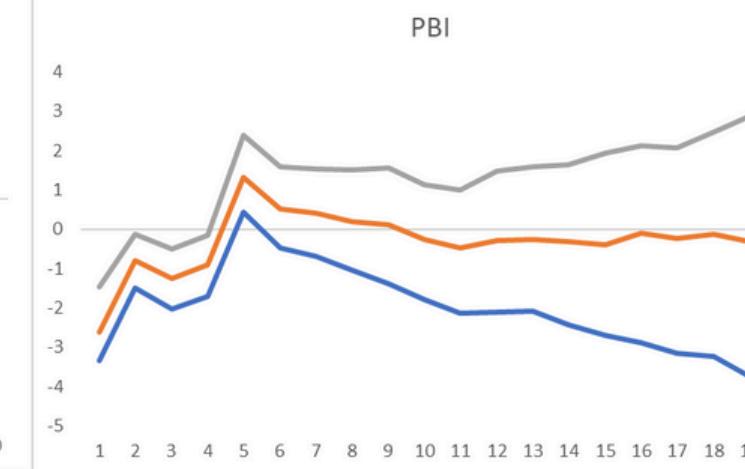
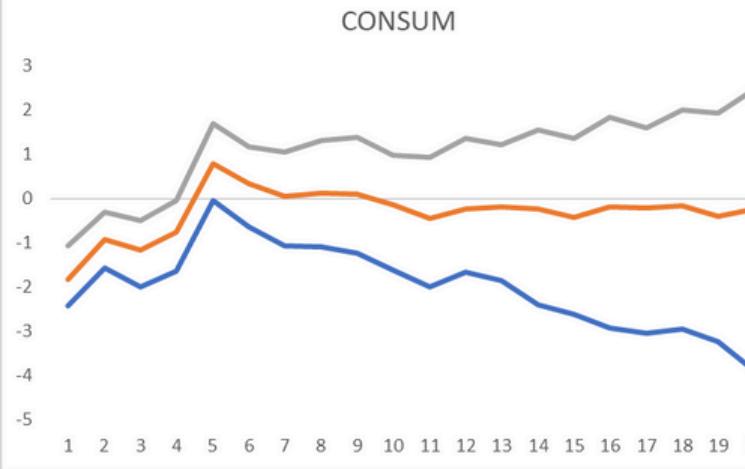
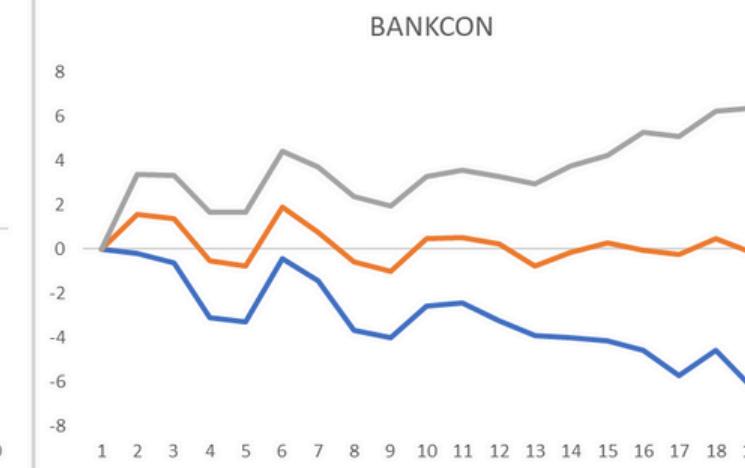
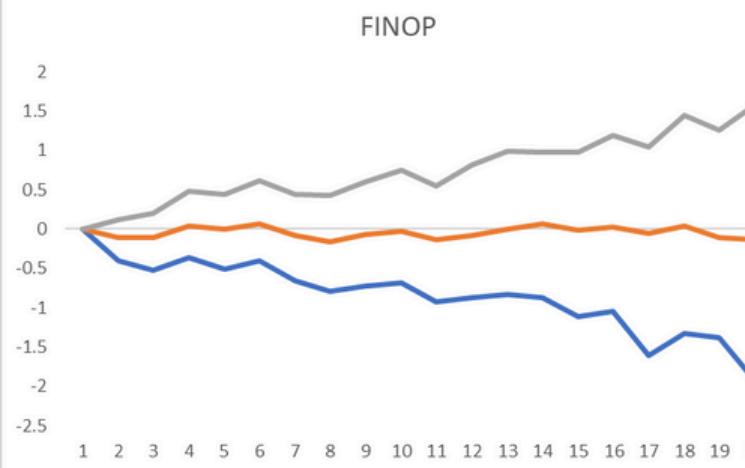
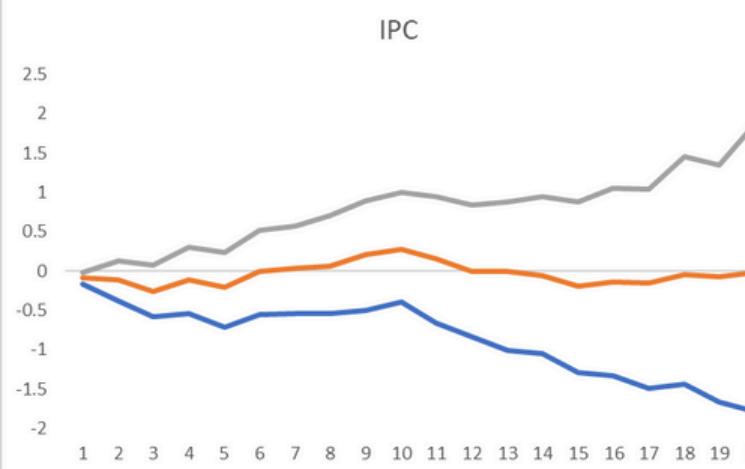
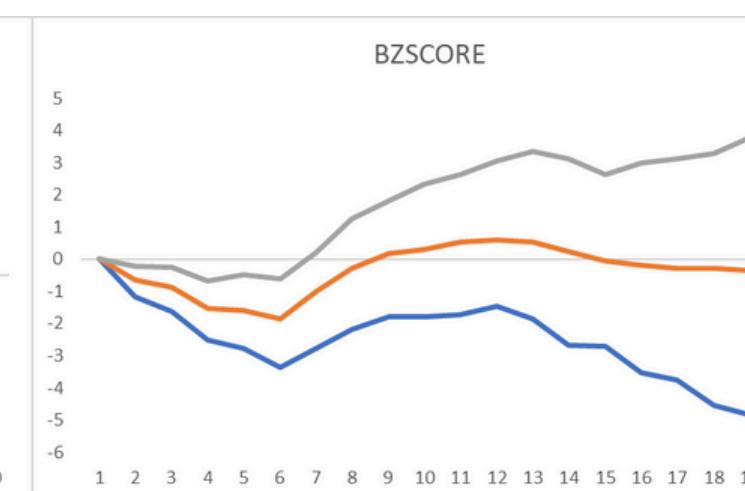
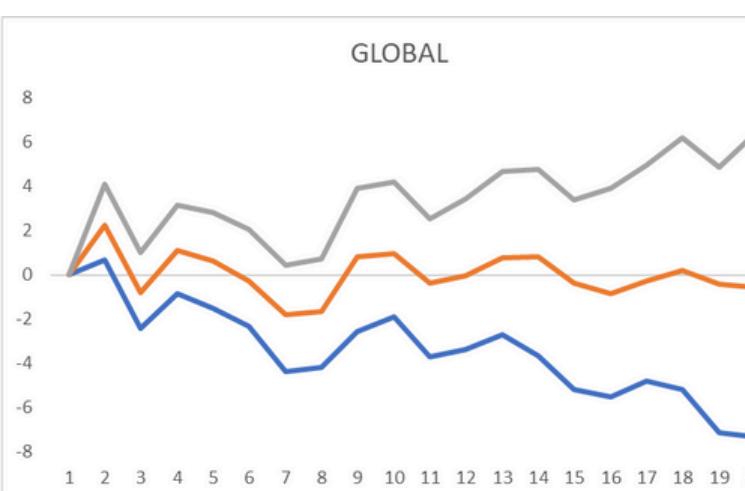
Efectos sobre la Dimensión de Acceso - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.088 , 0.05]	(0.035)	-0.013	[-0.817 , 0.669]	(0.379)	-0.066
p = 2	[-0.063 , 0.087]	(0.037)	-0.018	[-1.064 , 0.733]	(0.453)	-0.189
p = 3	[-0.076 , 0.053]	(0.034)	0.325	[-0.696 , 0.971]	(0.43)	0.128
p = 4	[-0.095 , 0.042]	(0.035)	0.085	[-0.366 , 1.047]	(0.371)	0.349
	FINOP				CONSUM	
p = 1	[-0.335 , 0.945]	(0.316)	0.325	[-0.307 , 0.583]	(0.23)	0.153
p = 2	[-0.667 , 0.668]	(0.331)	0.085	[-0.759 , 0.304]	(0.276)	-0.2
p = 3	[-0.717 , 0.616]	(0.334)	-0.053	[-0.691 , 0.297]	(0.253)	-0.172
p = 4	[-0.128 , 1.08]	(0.308)	0.464	[-0.032 , 0.9]	(0.242)	0.417
	BZSCORE				INVEST	
p = 1	[0.045 , 0.453]	(0.105)	0.251	[-0.126 , 0.042]	(0.043)	-0.043
p = 2	[-0.668 , -0.045]	(0.152)	-0.368	[-0.109 , 0.103]	(0.053)	0.004
p = 3	[0.133 , 0.66]	(0.137)	0.412	[-0.054 , 0.129]	(0.047)	0.04
p = 4	[-0.41 , -0.014]	(0.097)	-0.22	[-0.091 , 0.093]	(0.046)	0
	BANKCON				PBI	
p = 1	[-0.079 , 0.084]	(0.044)	0.008	[-0.38 , 0.444]	(0.204)	0.053
p = 2	[-0.122 , 0.056]	(0.045)	-0.028	[-0.318 , 0.619]	(0.234)	0.168
p = 3	[-0.102 , 0.085]	(0.048)	-0.007	[-0.514 , 0.353]	(0.228)	-0.115
p = 4	[-0.127 , 0.046]	(0.045)	-0.037	[-0.733 , 0.171]	(0.222)	-0.256



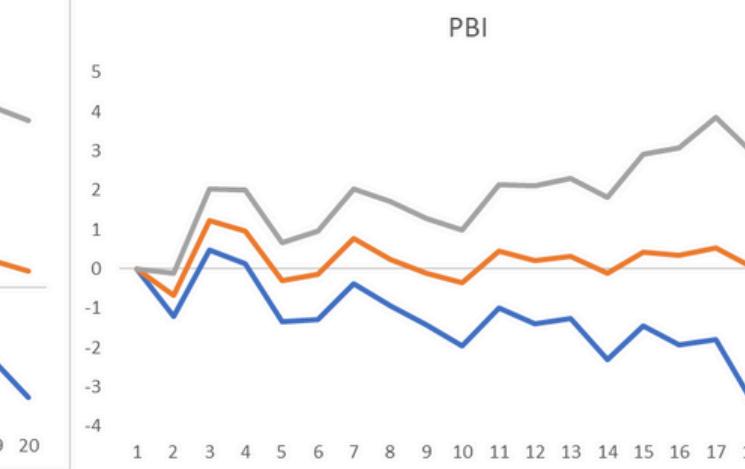
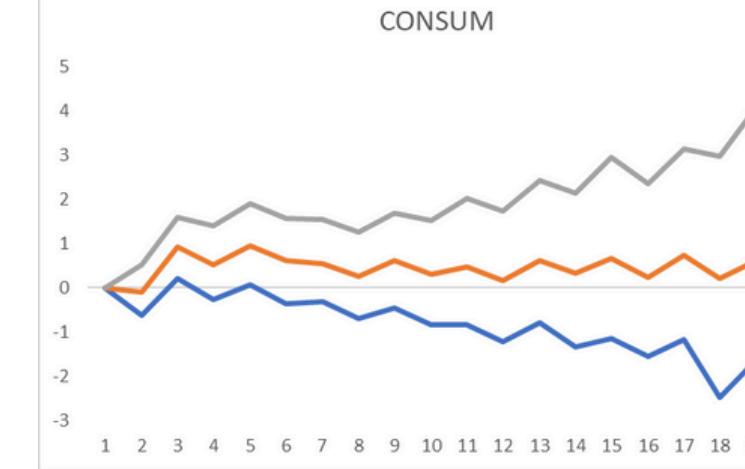
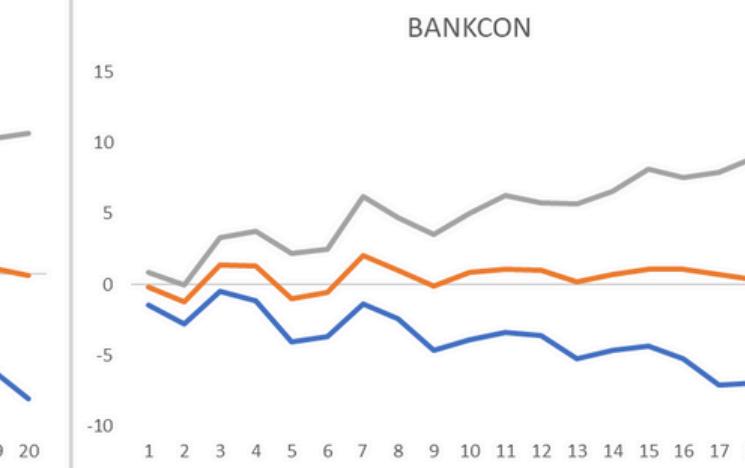
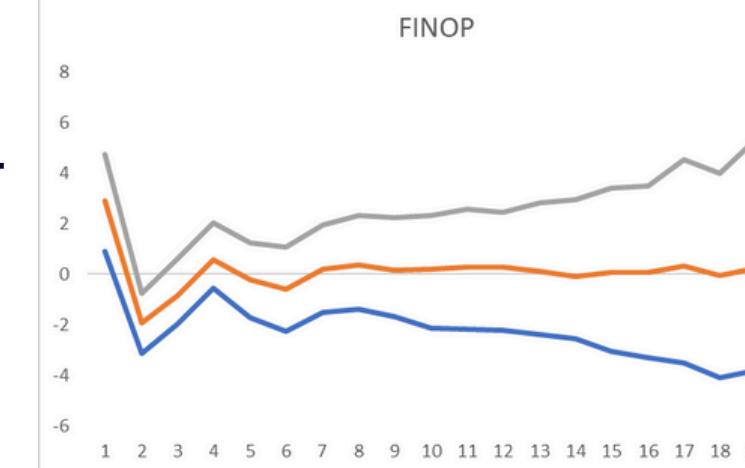
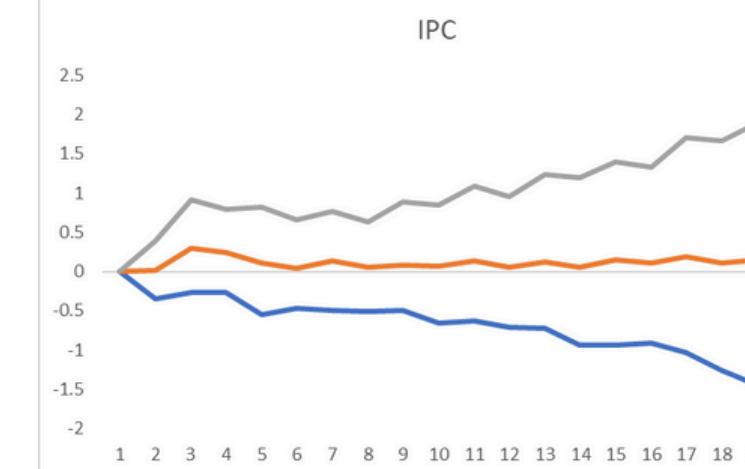
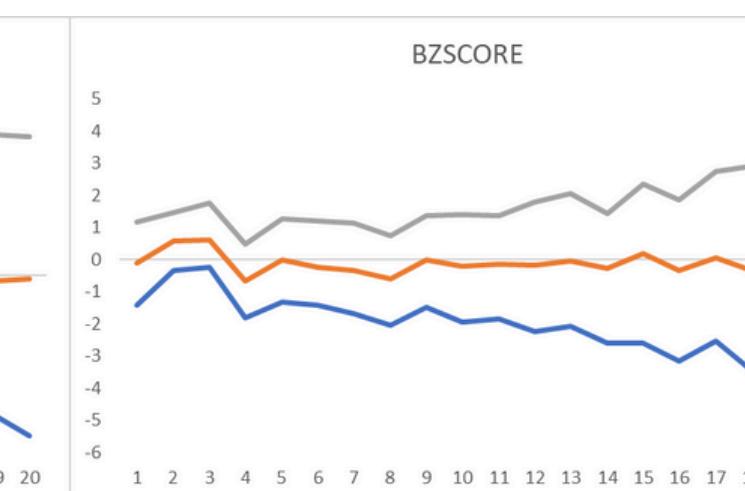
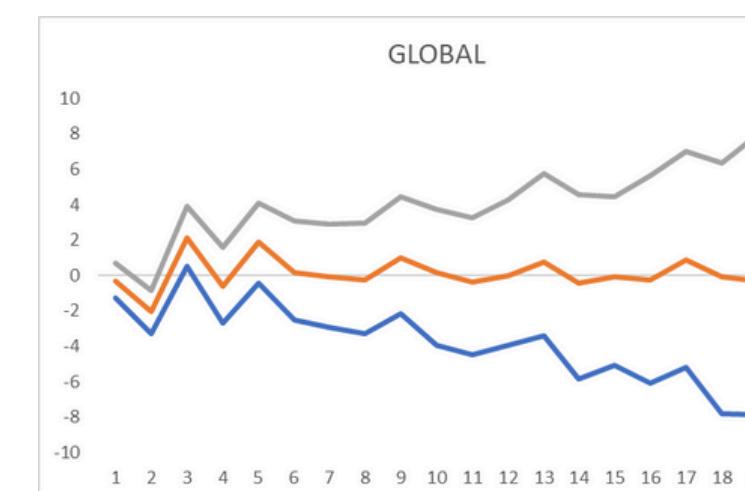
Modelo TV BVAR con PROF



Impulso de PROF

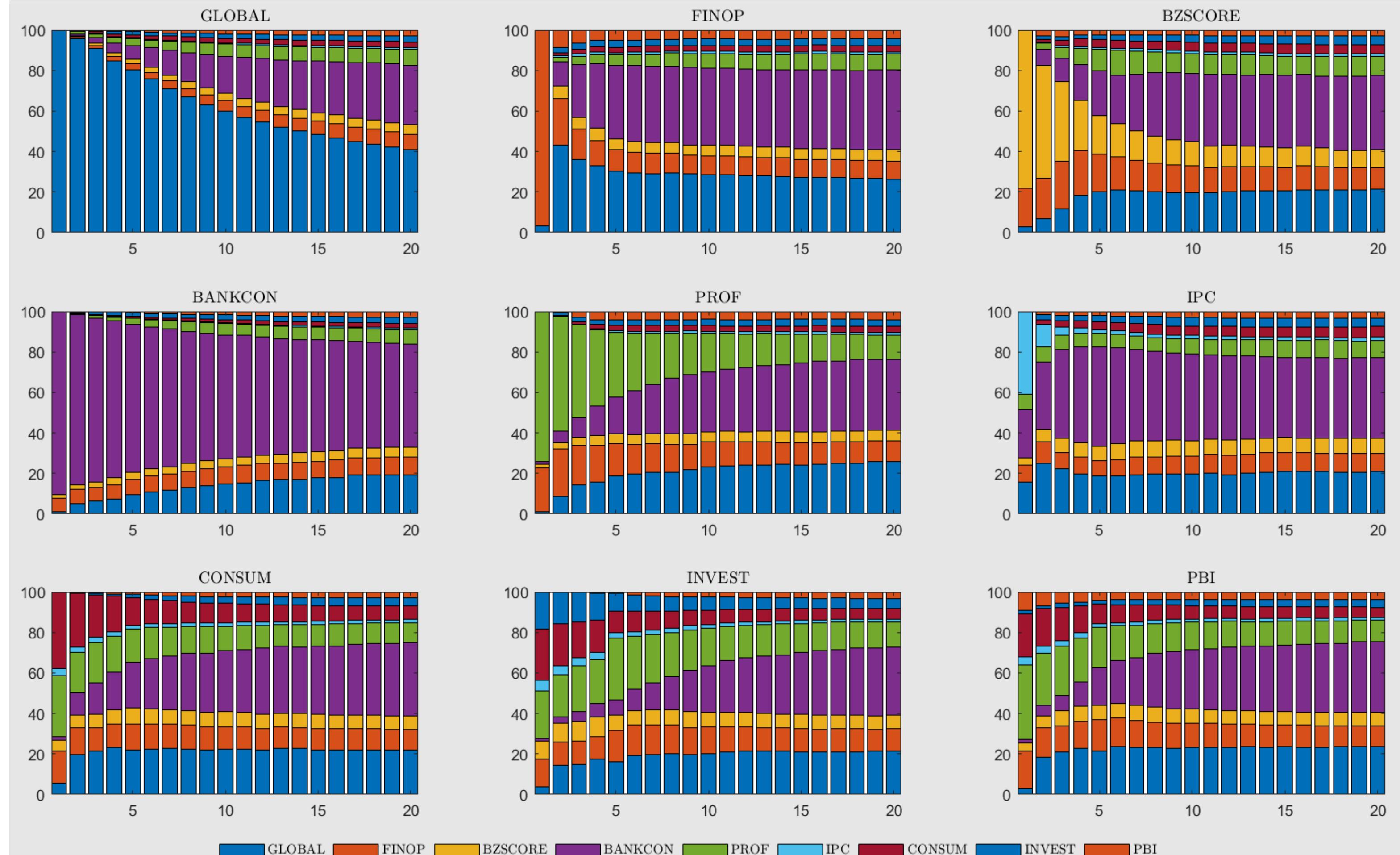


Respuesta de PROF





FEVD





Coeficientes Posterior - PROF → Variables

Efectos de la Profundidad Financiera - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.352 , 0.681]	(0.269)	0.197	[-0.094 , 0.088]	(0.046)	-0.001
p = 2	[-0.882 , 0.316]	(0.297)	-0.302	[-0.094 , 0.076]	(0.046)	-0.007
p = 3	[-0.723 , 0.445]	(0.294)	-0.138	[-0.088 , 0.095]	(0.046)	0
p = 4	[-0.739 , 0.465]	(0.306)	-0.142	[-0.088 , 0.075]	(0.043)	-0.007
	FINOP				CONSUM	
p = 1	[-0.147 , 0.031]	(0.045)	-0.058	[-0.122 , 0.198]	(0.084)	0.031
p = 2	[-0.077 , 0.099]	(0.045)	0.004	[-0.323 , 0.009]	(0.085)	-0.161
p = 3	[-0.09 , 0.086]	(0.046)	-0.002	[-0.298 , 0.032]	(0.083)	-0.124
p = 4	[-0.141 , 0.035]	(0.045)	-0.048	[0 , 0.297]	(0.075)	0.155
	BZSCORE				INVEST	
p = 1	[-0.16 , 0.159]	(0.076)	-0.004	[-0.551 , 0.331]	(0.229)	-0.139
p = 2	[-0.23 , 0.087]	(0.079)	-0.086	[-1.143 , -0.232]	(0.231)	-0.696
p = 3	[-0.31 , -0.02]	(0.077)	-0.162	[-0.743 , 0.245]	(0.249)	-0.247
p = 4	[-0.088 , 0.182]	(0.069)	0.056	[0.779 , 1.757]	(0.247)	1.231
	BANKCON				PBI	
p = 1	[-0.198 , 1.075]	(0.318)	0.408	[-0.125 , 0.25]	(0.095)	0.077
p = 2	[-0.042 , 1.201]	(0.32)	0.634	[-0.327 , 0.031]	(0.094)	-0.149
p = 3	[-0.318 , 0.93]	(0.319)	0.345	[-0.286 , 0.107]	(0.099)	-0.103
p = 4	[-0.465 , 0.905]	(0.339)	0.246	[0.112 , 0.47]	(0.093)	0.304



Coeficientes Posterior - Variables → PROF

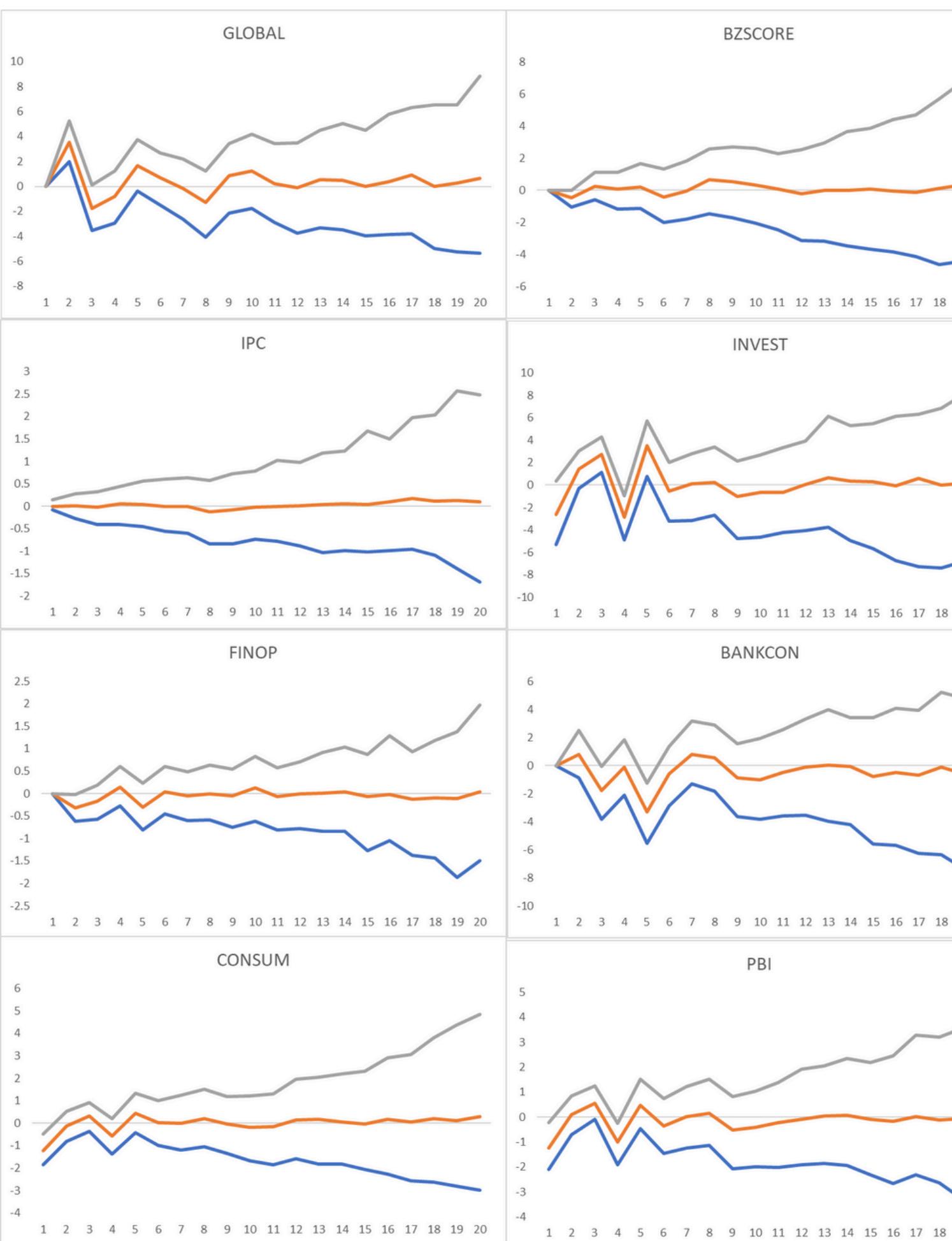
Efectos sobre la Profundidad Financiera - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.266 , -0.018]	(0.061)	-0.079	[-0.961 , 1.359]	(0.578)	0.223
p = 2	[-0.129 , 0.139]	(0.067)	0.038	[-0.719 , 1.69]	(0.615)	0.462
p = 3	[-0.208 , 0.041]	(0.061)	-0.658	[-1.336 , 1.035]	(0.615)	-0.131
p = 4	[-0.092 , 0.163]	(0.065)	-0.124	[-1.402 , 0.673]	(0.523)	-0.386
	FINOP				CONSUM	
p = 1	[-1.845 , 0.459]	(0.565)	-0.658	[-1.066 , 0.622]	(0.432)	-0.217
p = 2	[-1.204 , 0.918]	(0.558)	-0.124	[-0.664 , 1.394]	(0.511)	0.371
p = 3	[-0.347 , 1.835]	(0.581)	0.713	[-1.289 , 0.72]	(0.493)	-0.246
p = 4	[-0.797 , 1.392]	(0.561)	0.304	[-1.093 , 0.693]	(0.439)	-0.308
	BZSCORE				INVEST	
p = 1	[-0.067 , 0.89]	(0.251)	0.394	[-0.055 , 0.453]	(0.13)	0.207
p = 2	[-0.559 , 0.698]	(0.321)	0.085	[-0.362 , 0.136]	(0.125)	-0.125
p = 3	[-0.935 , 0.292]	(0.313)	-0.3	[-0.334 , 0.139]	(0.118)	-0.112
p = 4	[-0.132 , 0.77]	(0.225)	0.326	[-0.225 , 0.202]	(0.11)	-0.013
	BANKCON				PBI	
p = 1	[-0.204 , 0.056]	(0.069)	-0.072	[-1.341 , 0.376]	(0.436)	-0.505
p = 2	[-0.07 , 0.197]	(0.07)	0.071	[-0.382 , 1.458]	(0.475)	0.539
p = 3	[-0.116 , 0.168]	(0.07)	0.03	[-0.092 , 1.621]	(0.433)	0.711
p = 4	[-0.086 , 0.175]	(0.066)	0.043	[-0.632 , 1.096]	(0.431)	0.251



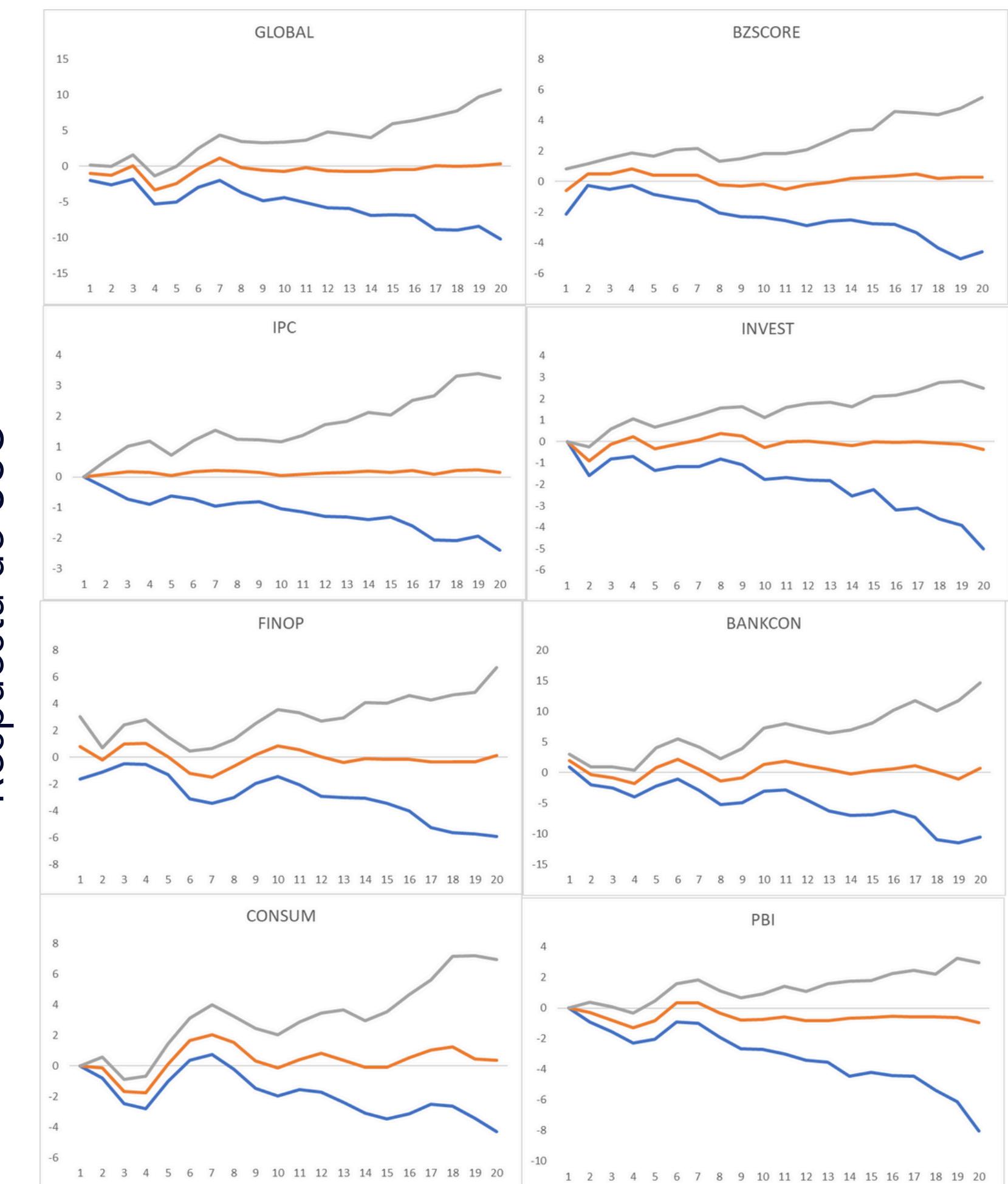
Modelo TV BVAR con USO



Impulso de USO

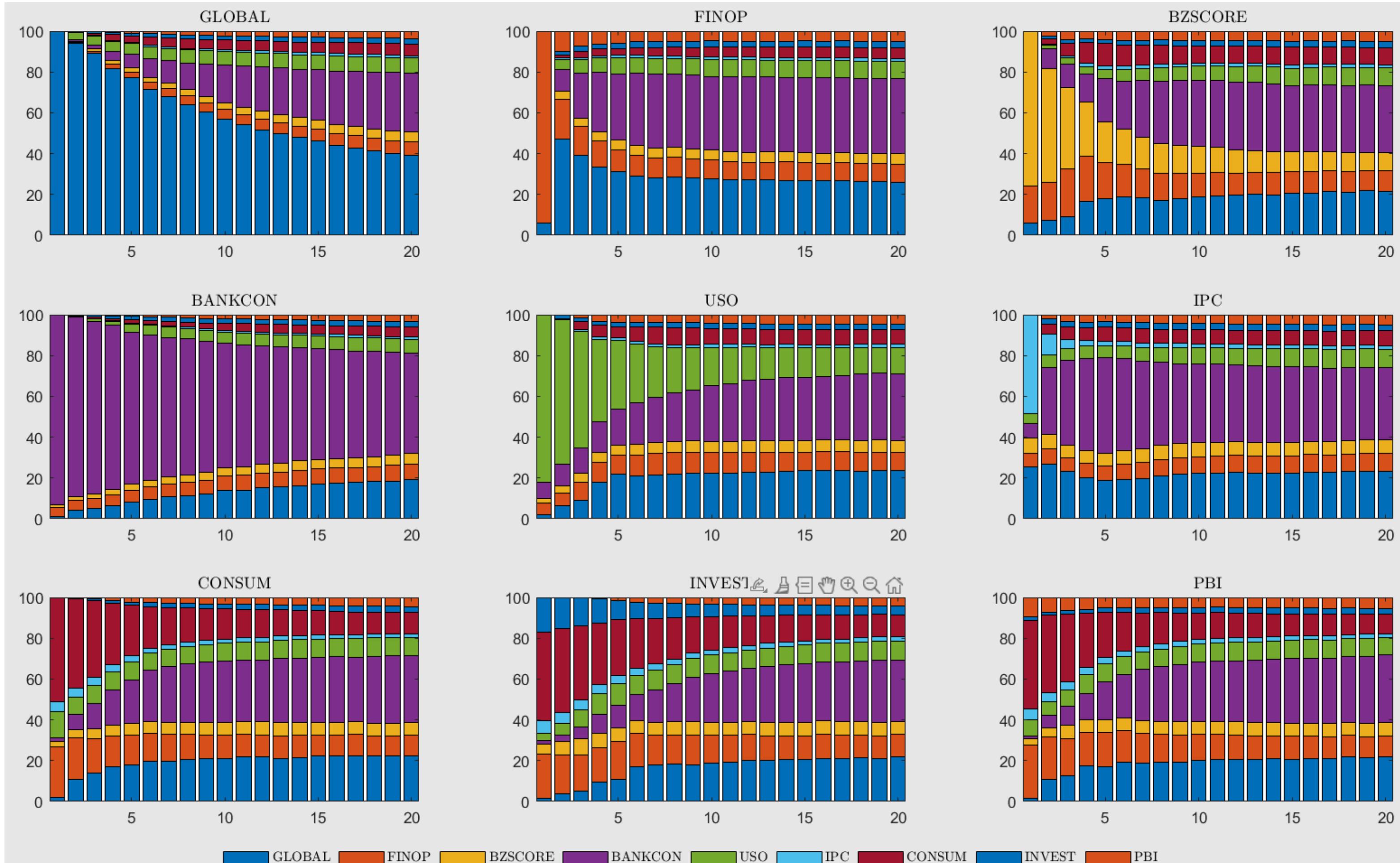


Respuesta de USO





FEVD





Coeficientes Posterior - USO → Variables

Efectos de la Dimension de Uso - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[0.07 , 0.931]	(0.225)	0.485	[-0.063 , 0.094]	(0.039)	0.017
p = 2	[-0.763 , 0.146]	(0.234)	-0.335	[-0.09 , 0.082]	(0.045)	-0.002
p = 3	[-0.522 , 0.329]	(0.215)	-0.09	[-0.057 , 0.093]	(0.04)	0.021
p = 4	[-0.152 , 0.713]	(0.23)	0.28	[-0.057 , 0.127]	(0.047)	0.031
	FINOP				CONSUM	
p = 1	[-0.148 , 0.027]	(0.044)	-0.063	[-0.03 , 0.239]	(0.069)	0.105
p = 2	[-0.1 , 0.084]	(0.046)	-0.006	[-0.138 , 0.128]	(0.068)	-0.001
p = 3	[-0.085 , 0.083]	(0.042)	-0.003	[-0.245 , 0.031]	(0.07)	-0.104
p = 4	[-0.145 , 0.05]	(0.049)	-0.054	[-0.025 , 0.277]	(0.075)	0.13
	BZSCORE				INVEST	
p = 1	[-0.152 , 0.108]	(0.066)	-0.004	[-0.017 , 0.78]	(0.204)	0.371
p = 2	[-0.021 , 0.24]	(0.068)	0.108	[-0.179 , 0.663]	(0.217)	0.253
p = 3	[-0.159 , 0.081]	(0.058)	-0.039	[-1.19 , -0.318]	(0.216)	-0.741
p = 4	[-0.139 , 0.136]	(0.069)	-0.004	[0.011 , 0.853]	(0.216)	0.444
	BANKCON				PBI	
p = 1	[-0.404 , 0.491]	(0.242)	0.059	[-0.023 , 0.3]	(0.082)	0.132
p = 2	[-0.695 , 0.337]	(0.272)	-0.205	[-0.145 , 0.193]	(0.085)	0.025
p = 3	[-0.652 , 0.381]	(0.256)	-0.134	[-0.35 , -0.022]	(0.083)	-0.185
p = 4	[-1.176 , -0.199]	(0.249)	-0.684	[-0.047 , 0.279]	(0.086)	0.109



Coeficientes Posterior - Variables → USO

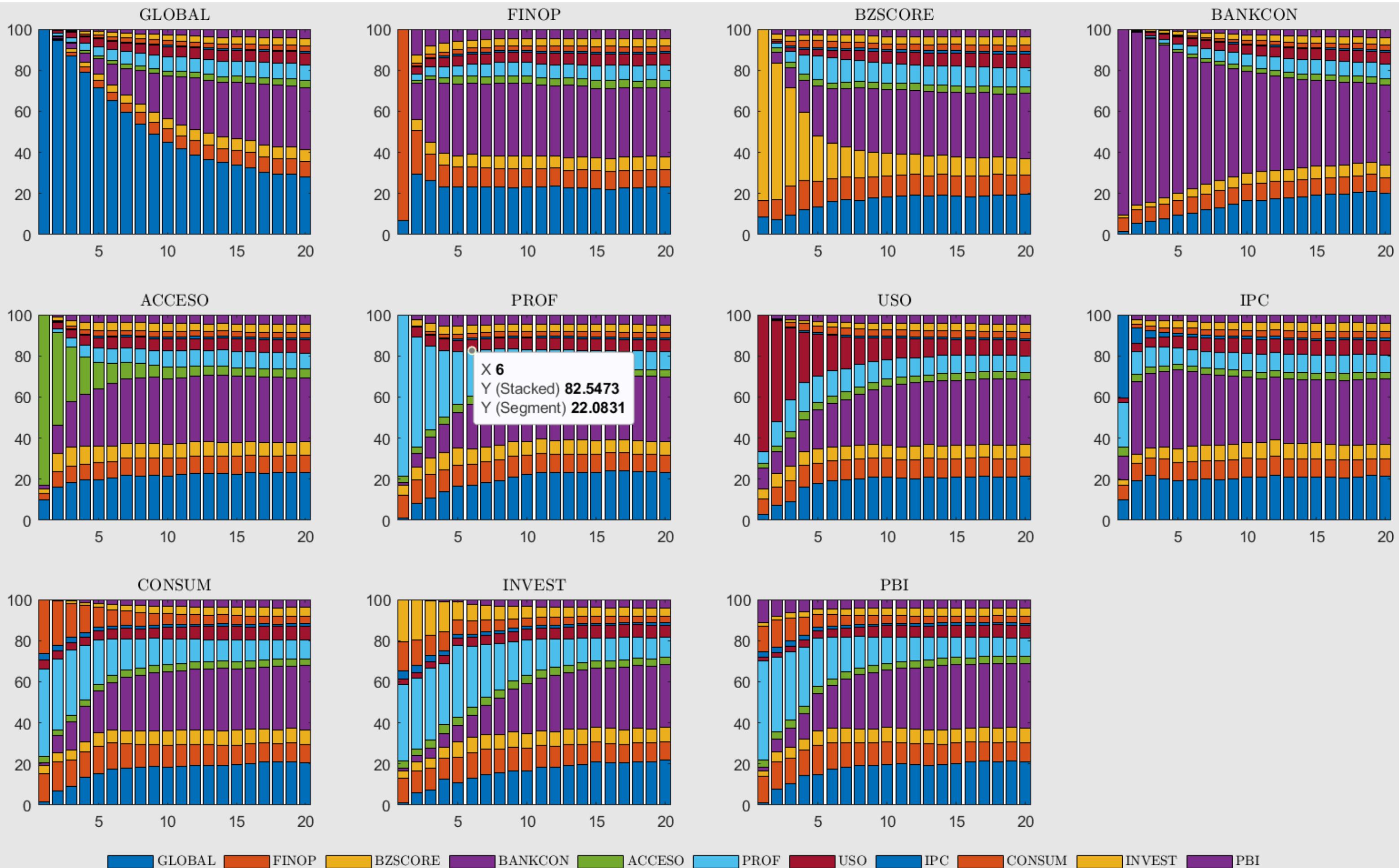
Efectos sobre la Dimension de Uso - Coeficientes Posterior β						
	Bandas	Desv.est.	Mediana	Bandas	Desv.est.	Mediana
	GLOBAL				IPC	
p = 1	[-0.205 , 0.047]	(0.066)	-0.176	[-0.661 , 1.72]	(0.584)	0.507
p = 2	[-0.193 , 0.082]	(0.07)	-0.056	[-0.568 , 1.723]	(0.623)	0.564
p = 3	[-0.306 , -0.044]	(0.069)	-0.424	[-0.705 , 1.7]	(0.627)	0.4
p = 4	[-0.199 , 0.072]	(0.067)	0.007	[-0.668 , 1.627]	(0.575)	0.391
	FINOP				CONSUM	
p = 1	[-1.611 , 0.699]	(0.614)	-0.424	[-0.313 , 1.763]	(0.521)	0.685
p = 2	[-1.216 , 1.146]	(0.598)	0.007	[-1.632 , 0.512]	(0.55)	-0.594
p = 3	[-0.433 , 1.651]	(0.55)	0.586	[-0.979 , 1.226]	(0.544)	0.123
p = 4	[-0.764 , 1.477]	(0.564)	0.348	[-0.194 , 1.838]	(0.538)	0.844
	BZSCORE				INVEST	
p = 1	[-0.36 , 0.665]	(0.273)	0.133	[-0.377 , 0.111]	(0.124)	-0.129
p = 2	[-0.587 , 0.841]	(0.374)	0.095	[-0.119 , 0.405]	(0.136)	0.142
p = 3	[-0.438 , 0.849]	(0.336)	0.181	[-0.075 , 0.398]	(0.121)	0.162
p = 4	[-0.628 , 0.338]	(0.254)	-0.125	[-0.303 , 0.167]	(0.123)	-0.072
	BANKCON				PBI	
p = 1	[-0.189 , 0.106]	(0.076)	-0.042	[-1.096 , 0.663]	(0.462)	-0.22
p = 2	[-0.233 , 0.037]	(0.068)	-0.088	[-1.804 , 0.285]	(0.51)	-0.723
p = 3	[-0.221 , 0.063]	(0.072)	-0.083	[-1.745 , 0.096]	(0.486)	-0.834
p = 4	[-0.111 , 0.164]	(0.07)	0.023	[-1.289 , 0.696]	(0.501)	-0.275



Modelo TV BVAR con ACCESO, PROF y USO



FEVD





Resultados



Resultados Preliminares

- Tanto el modelo VAR como el TV BVAR tienen resultados significativos en algún punto. Sin embargo, estimar un modelo TV BVAR con todas las variables de inclusión financiera no arroja IRF's significativas (todas cercanas a cero), pero la lógica de resultados se mantiene observando la FEVD. Por ende, se estima el modelo TV BVAR para cada dimensión de la inclusión financiera, donde si hay resultados significantes.
- Bajo el modelo TV BVAR confirmamos que ciertas relaciones no lineales estimadas pueden mantenerse positivas o negativas, resultados que pueden respaldarse con la literatura y son hallazgos considerables. Además, varias de esas relaciones están relacionadas directamente con la inclusión financiera.
- Al crear índices para cada dimensión, es posible interpretar de mejor manera los choques estructurales del índice de inclusión financiera, así como los choques que afectan esta variable.
- No es estimo la descomposición histórica para enfocarse en los resultados más relevantes.



Comentarios

- La forma de quitar tendencia con medias móviles es la que mejor se adapta al modelo dado que se aprecian resultados con mayor estabilidad comparado a otras alternativas.
- Es posible que aquellas variables a las cuales también se aplicó filtro de tendencia (GLOBAL, BANKCON y FINOP) puedan ampliar su span y por ende sacar variaciones anuales, aunque no estoy seguro si sea necesario.
- El índice de inclusión financiera 2PCA es muy parecido al índice construido inicialmente (sin índices en sus dimensiones), así que se recomienda trabajar solo con este índice.
- Queda pendiente argumentar y citar aquellos trabajos en los cuales baso la elección de los datos, métodos de reducción de dimensionalidad, etc.



**Quedo atento a
sus comentarios.
Muchas gracias.**