Econometrics II - Problem Set 3

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Question 1

The results can be seen below.

Table 1:

	Dependent variable:			
	GDP Growth			
	(1)	(2)	(3)	(4)
lag(Gdp, 1)	0.323***	0.368***	0.282**	0.373***
	(0.114)	(0.111)	(0.121)	(0.109)
lag(Gdp, 2)	0.230**	0.264**	0.195*	0.273**
	(0.110)	(0.110)	(0.117)	(0.107)
lag(Exchange, 1)	−0.591		−1.497	
	(0.401)		(2.051)	
lag(Exchange, 2)			0.751	
			(2.122)	
lag(Ipc, 1)		0.0003	−0.0004	
		(0.001)	(0.001)	
lag(Ipc, 2)		−0.001	−0.001	
		(0.001)	(0.001)	
Constant	2.490***	1.777**	3.200***	1.625**
	(0.883)	(0.746)	(1.085)	(0.665)
Predictions	0.96	2.7	0.72	2.57
MSE	23.43	43.24	21.19	41.55
Observations	76	76	76	76
R^2	0.333	0.318	0.349	0.313
Adjusted R^2	0.305	0.279	0.292	0.294
Residual Std. Error	3.382 (df = 72)	3.444 (df = 71)	3.414 (df = 69)	3.409 (df = 73)
Note:				*p<0.1; **p<0.05; ***p<0.01

Via the MSE, we can see that the model generates the best prediction is ... .

Question 2

Question 3

Question 4

Question 5

Question 6

Item 1.

The results, for each model, can be seen below.

Table 2:

	Dependent variable:		
	Gdp	Ipc	ExchangeDetrended
Gdp.l1	0.445***	−10.312	0.002
	(0.104)	(8.593)	(0.005)
Ipc.l1	−0.001	0.672***	0.00002
	(0.001)	(0.087)	(0.00005)
ExchangeDetrended.l1	1.016	−77.375	0.698***
	(1.967)	(162.533)	(0.088)
const	2.787***	97.979*	−0.016
	(0.687)	(56.757)	(0.031)
Predictions	3.19	98.58	-0.11
MSE	50.01	8641.3	0.74
Observations	77	77	77
R^2	0.227	0.504	0.474
Adjusted R^2	0.196	0.483	0.452
Residual Std. Error (df = 73)	3.635	300.352	0.162
Note:			*p<0.1; **p<0.05; ***p<0.01

Table 3:

	Dependent variable:		
	Gdp	Ipc	ExchangeDetrended
Gdp.l1	0.366^{***}	-10.189	0.002
	(0.114)	(9.911)	(0.005)
Ipc.l1	0.0004	0.772^{***}	0.0001
	(0.001)	(0.121)	(0.0001)
ExchangeDetrended.l1	0.457	-184.556	0.895^{***}
	(2.602)	(226.037)	(0.119)
Gdp.l2	0.274^{**}	-4.680	0.002
	(0.112)	(9.763)	(0.005)
Ipc.l2	-0.001	-0.155	-0.0001
	(0.001)	(0.120)	(0.0001)
ExchangeDetrended.l2	1.187	161.017	-0.282^{**}
	(2.614)	(227.051)	(0.120)
const	1.716^{**}	129.982^{*}	-0.023
	(0.757)	(65.791)	(0.035)
Predictions	2.47	119.48	-0.11
MSE	40.25	12965.15	0.74
Observations	76	76	76
R^2	0.324	0.525	0.519
Adjusted R^2	0.265	0.484	0.478
Residual Std. Error (df = 69)	3.477	302.094	0.159
Note:			*p<0.1; **p<0.05; ***p<0.01

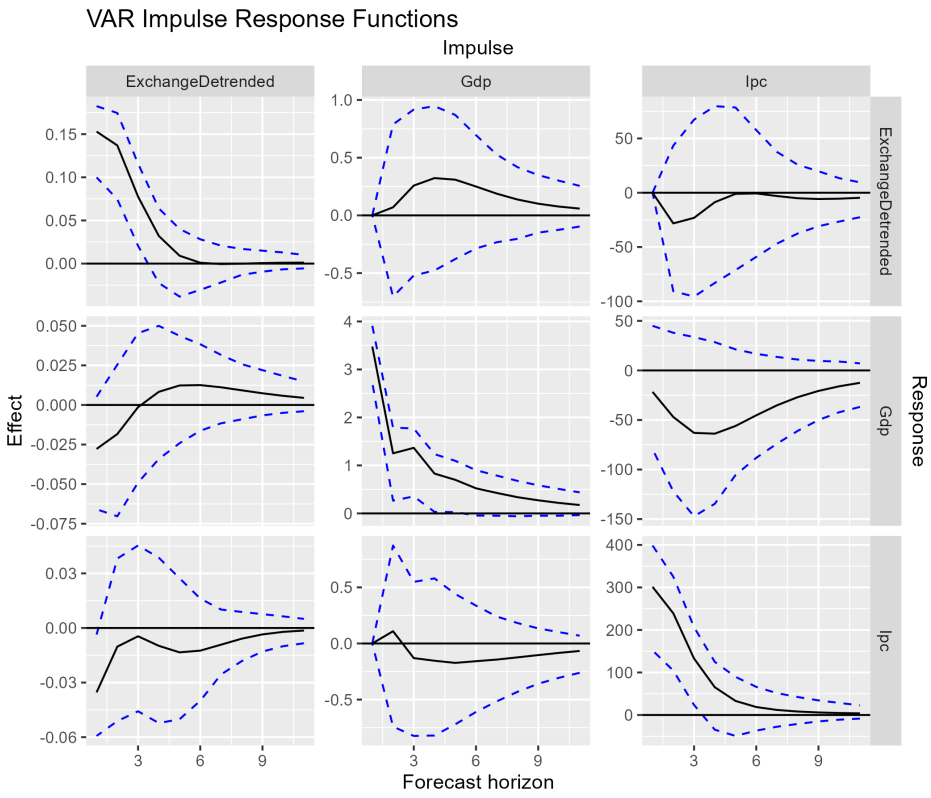
Table 4:

	Dependent variable:		
	Gdp	Ipc	ExchangeDetrended
Gdp.l1	0.332**	−6.670	0.004
	(0.126)	(9.532)	(0.006)
Ipc.l1	0.0004	0.874***	0.0001
	(0.001)	(0.110)	(0.0001)
ExchangeDetrended.l1	0.470	3.501	0.866***
	(2.806)	(212.551)	(0.125)
Gdp.l2	0.303**	−8.556	0.004
	(0.126)	(9.542)	(0.006)
Ipc.l2	−0.001	−0.568***	−0.00000
	(0.002)	(0.141)	(0.0001)
ExchangeDetrended.l2	0.779	−170.812	−0.203
	(3.642)	(275.915)	(0.163)
Gdp.l3	0.022	8.080	−0.008
	(0.120)	(9.123)	(0.005)
Ipc.l3	0.00002	0.515***	−0.0001
	(0.001)	(0.111)	(0.0001)
ExchangeDetrended.l3	0.748	277.678	−0.090
	(2.814)	(213.148)	(0.126)
const	1.567*	61.938	0.005
	(0.842)	(63.799)	(0.038)
Predictions	2.2	-3.31	-0.06
MSE	36.94	79.79	0.67
Observations	75	75	75
R^2	0.332	0.645	0.552
Adjusted R^2	0.239	0.596	0.490
Residual Std. Error (df = 65)	3.550	268.921	0.159
Note:			*p<0.1; **p<0.05; ***p<0.01

Item 2.

The order was ..., because ... .

The IRFs can be seen below.



About credibility, the results show that ... .