

SUPPLEMENT

For

Forecasting Economic and Financial Variables with Global VARs

By

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July 2009

1 Introduction

This supplement provides additional result tables for Pesaran, Schuermann and Smith (2009, PSS) and should be consulted in conjunction with that paper.

2 Assessing the Joint Significance of Seasonal Components

The table below provides the output for the seasonal adjustment procedure described in the Appendix of PSS.

Table S1. Result of F- test for the Joint Significance of the Seasonal Components

Country	Dependent Variable	
	DY	DP
Argentina	118.55 [†]	0.39
Australia	0.34	0.57
Austria	268.35 [†]	12.53 [†]
Belgium	0.44	2.59
Brazil	41.63 [†]	0.38
Canada	0.68	1.30
China	0.01	0.11
Chile	26.00 [†]	2.20
Finland	244.49 [†]	4.76 [†]
France	0.14	0.98
Germany	0.01	8.41 [†]
India	257.17 [†]	35.13 [†]
Indonesia	16.86 [†]	0.81
Italy	0.23	0.97
Japan	0.40	18.13 [†]
Korea	322.71 [†]	3.18 [†]
Malaysia	56.59 [†]	5.21 [†]
Mexico	132.88 [†]	1.33
Netherlands	0.05	3.44 [†]
Norway	120.962 [†]	3.07 [†]
New Zealand	0.18	0.43
Peru	87.75 [†]	0.18
Phillipines	280.66 [†]	1.46
South Africa	0.39	0.42
Saudi Arabia	0.02	2.07
Singapore	0.37	1.12
Spain	0.33	0.50
Sweden	987.79 [†]	2.60
Switzerland	0.51	0.02
Thailand	39.14 [†]	1.59
Turkey	729.46 [†]	4.59 [†]
UK	0.08	10.82 [†]
US	0.09	1.26

Notes: [†] denotes significance at the 5% level. The corresponding critical value is 2.70. Spanish CPI was seasonally adjusted despite the seasonal components not being significant as shown in the above figures. This was due to the apparent seasonality towards the end of the series.

3 Lag Orders and Number of Cointegrating Relations for VARX* Models

The tables that follow give the number of lag orders and cointegrating relations for the individual country VARX* models used in the forecasting exercises.

Table S2. Lag Orders and Number of Cointegrating Relations of the VARX*(p_i, q_i) Country Specific Models when Forecasting with the DdPS-GVAR and DHPS-GVAR Models

Countries	DdPS-GVAR			DHPS-GVAR		
	p	q	$\#coint$	p	q	$\#coint$
China	2	1	1	2	1	1
Euro Area	2	2	2	2	1	3
Japan	1	1	4	2	1	3
Argentina	2	1	2	2	1	2
Brazil	2	1	1	2	1	1
Chile	2	1	2	2	1	2
Mexico	1	1	3	2	1	2
Peru	2	1	3	2	1	3
Australia	1	1	4	2	1	3
Canada	1	1	4	2	1	3
New Zealand	2	1	3	2	1	3
Indonesia	2	1	3	2	1	3
Korea	2	1	4	2	1	4
Malaysia	2	1	1	2	1	2
Philippines	2	1	2	2	1	2
Singapore	2	1	3	2	1	2
Thailand	1	1	3	2	1	2
India	2	1	2	2	1	2
South Africa	2	1	1	2	1	1
Saudi Arabia	2	1	1	2	1	1
Turkey	2	1	1	2	1	1
Norway	2	1	2	2	1	3
Sweden	2	1	3	2	1	3
Switzerland	1	1	3	2	1	3
UK	2	1	3	2	1	3
US	2	2	2	2	1	2

Notes: DdPS-GVAR denotes the GVAR model in Dees, di Mauro, Pesaran and Smith (2007); DHPS-GVAR denotes the GVAR model with long run structural relationships as imposed in Dees, Holly, Pesaran and Smith (2007).

Table S3. Lag Orders and Number of Cointegrating Relations of the VARX*(p_i, q_i) Country Specific Models when Forecasting with the DdPS-GVAR Model Excluding Latin America

Countries	DdPS-GVAR			DdPS-GVAR Without EQ			DdPS-GVAR Without EQ & LR		
	p	q	$\#coint$	p	q	$\#coint$	p	q	$\#coint$
China	2	1	1	2	1	1	2	1	1
Euro Area	2	1	1	2	1	1	2	1	1
Japan	1	1	3	1	1	2	1	1	2
Australia	1	1	3	1	1	1	2	1	1
Canada	2	1	3	1	1	3	2	1	2
New Zealand	2	1	3	2	1	2	2	1	1
Indonesia	2	1	3	2	1	3	2	1	3
Korea	2	1	3	2	1	3	2	1	2
Malaysia	1	1	1	1	1	1	1	1	1
Philippines	2	1	2	2	1	2	2	1	2
Singapore	1	1	2	1	1	2	1	1	1
Thailand	1	1	3	2	1	3	2	1	2
India	2	1	2	2	1	1	2	1	1
South Africa	2	1	1	2	1	1	2	1	1
Saudi Arabia	2	1	2	2	1	2	2	1	2
Turkey	1	1	2	1	1	2	1	1	2
Norway	2	1	2	2	1	1	2	1	1
Sweden	2	1	3	2	1	2	2	1	2
Switzerland	2	1	2	2	1	1	1	1	1
UK	1	1	2	1	1	2	2	1	2
US	2	1	2	2	1	2	2	1	2

Notes: EQ denotes real equity prices and LR the long-term interests rate.

Table S4. Lag Orders and Number of Cointegrating Relations of the VARX*(p_i, q_i) Country Specific Models for in Sample Estimation of the DHPS-GVAR Model Excluding Latin America

Countries	DHPS-GVAR			DHPS-GVAR Without EQ			DHPS-GVAR Without EQ & LR		
	p	q	#coint	p	q	#coint	p	q	#coint
China	2	1	1	2	1	1	2	1	1
Euro Area	2	1	3	2	1	3	2	1	1
Japan	2	1	3	2	1	3	2	1	1
Australia	2	1	3	2	1	3	2	1	2
Canada	2	1	3	2	1	3	2	1	2
New Zealand	2	1	3	2	1	3	2	1	1
Indonesia	2	1	3	2	1	3	2	1	3
Korea	2	1	3	2	1	2	2	1	1
Malaysia	2	1	2	2	1	1	2	1	1
Philippines	2	1	2	2	1	2	2	1	2
Singapore	2	1	2	2	1	2	2	1	2
Thailand	2	1	2	2	1	2	2	1	2
India	2	1	2	2	1	2	2	1	2
South Africa	2	1	1	2	1	1	2	1	1
Saudi Arabia	2	1	1	2	1	1	2	1	1
Turkey	2	1	1	2	1	1	2	1	1
Norway	2	1	3	2	1	3	2	1	2
Sweden	2	1	3	2	1	3	2	1	1
Switzerland	2	1	3	2	1	3	2	1	2
UK	2	1	3	2	1	3	2	1	2
US	2	1	2	2	1	2	2	1	1

See notes to Table S3.

References

- Dees, S., di Mauro, F., Pesaran, M.H. & Smith, L. V. (2007). Exploring the international linkages of the euro area: A global VAR analysis. *Journal of Applied Econometrics*, 22, 1-38.
- Dees, S., Holly, S., Pesaran, M. H. & Smith, L. V. (2007). Long run macroeconomic relations in the global economy. *Economics - The Open-Access, Open-Assessment E-Journal*, 2007-3.
- Pesaran, M. H, Schuermann, T. & Smith, L. V. (2009). Forecasting economic and financial variables with global VARs. *International Journal of Forecasting*, forthcoming.