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# European Commission

Directorate General Economic and Financial Affairs

## **BCS data from Macedonia, Turkey and Croatia** **- *unearthing a survey treasure***

Andreas Reuter

*Business and consumer surveys and  
short-term forecast (ECFIN A4.2)*

# Background

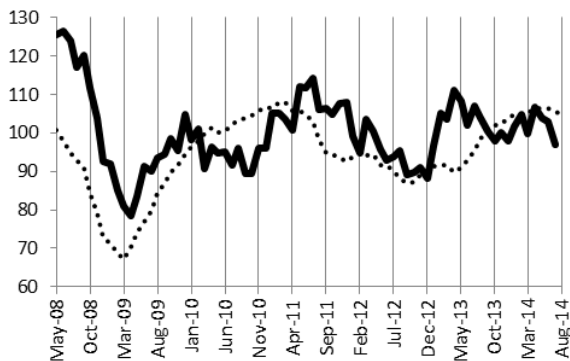
- BCS data provide timely information on state of the economy to decision-makers
- every EU enlargement requires extending scope of EU BCS programme ...  
... **ideally: while country is still candidate country**  
(so that seasonally adjusted data is available when country joins EU)

BCS programme is (constantly) growing

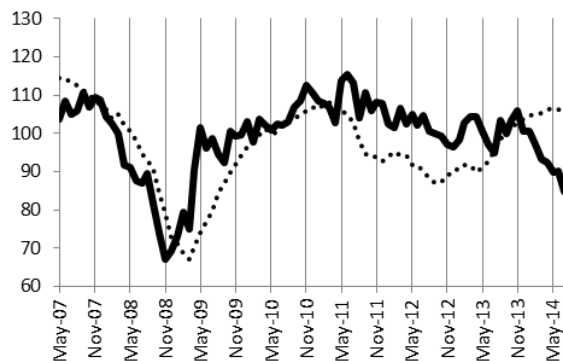
## Availability of BCS data by country

	INDU	SERV	RETA	BUIL	CONS	ESI
<b>candidate countries:</b>	only reached candidate status in 2014					
Albania	-	accession negotiations interrupted since May 2013				
Iceland	-					
Montenegro	05/12	05/12	05/12	05/12	05/12	05/12
Serbia	series available $\geq 3$ years (i.e. seasonally adjusted)					
Macedonia	05/08	05/08	05/08	05/08	05/12	05/08
Turkey	05/07	05/11	05/11	05/11	05/07	05/07
<b>EU Member States having joined in 2014:</b>						
Croatia	05/08	05/08	05/08	05/08	05/05	05/08

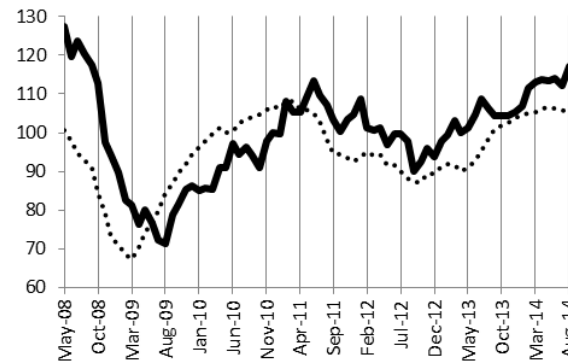
# Graphical inspection of survey data



— ESI (MK)    ..... ESI (EU)



— ESI (TR)    ..... ESI (EU)



— ESI (HR)    ..... ESI (EU)

correlation with  
ESI (EU):  
0.41

correlation with  
ESI (EU):  
0.57

correlation with  
ESI (EU):  
0.56

## Correlation with hard-data reference series

	INDU	SERV	RETA	BUIL	CONS	ESI
<b>Macedonia</b>						
coincident	0.53	-	0.08	0.16	-	-
lead 1	0.46	-	0.10	0.11	-	-
lead 2	0.34	-	0.06	-0.02	-	-
lead 3	0.20	-	-0.16	-0.07	-	-
<b>Turkey</b>						
coincident	0.76	0.45	0.42	0.25	0.51	0.68
lead 1	0.78	0.44	0.14	0.13	0.54	0.76
lead 2	0.77	0.45	-0.05	-0.03	0.55	0.81
lead 3	0.70	0.48	0.01	-0.18	0.54	0.83
<b>Croatia</b>						
coincident	0.65	0.87	0.67	0.91	0.83	0.92
lead 1	0.66	0.80	0.69	0.90	0.80	0.90
lead 2	0.61	0.70	0.71	0.90	0.75	0.83
lead 3	0.47	0.58	0.72	0.86	0.70	0.72
<b>average across all EU Member States</b>						
coincident	0.73	0.77	0.39	0.66	0.68	0.87
lead 1	0.71	0.77	0.31	0.63	0.69	0.88
lead 2	0.66	0.75	0.24	0.58	0.69	0.88
lead 3	0.60	0.72	0.19	0.53	0.68	0.85

correlation  
>0.50

## Correlation with hard-data reference series

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better than  
average  
across all  
EU MS

## Correlation with hard-data reference series

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weak performance: due to volatile ref. series

# Volatility of survey data

## months for cyclical dominance:

decomposing survey data into:

- (i) trend-cycle component
- (ii) irregular component (noise)
- (iii) seasonal component

calculation of **mean absolute changes** for:

- $\text{month}_t$  vs.  $\text{month}_{t-1}$  (case 1)
- $\text{month}_t$  vs.  $\text{month}_{t-2}$  (case 2)
- $\text{month}_t$  vs.  $\text{month}_{t-3}$  (case 3)
- etc.

calculation of **ratio:** 
$$\frac{\text{irregular component (mean absolute change)}}{\text{trend-cycle component (mean absolute change)}}$$

- for case 1
- for case 2
- for case 3
- etc.

- identification of the first ratio which is  $< 1$
- MCD can be derived from the ratio (e.g. it is 3 for "case 3 ratio")
- **interpretation:** wait 3 months, before you interpret increase / decrease in series as improvement / deterioration of economic sentiment.



## MCDs by country and surveyed sector

	INDU	SERV	RETA	BUIL	CONS	ESI
Macedonia	3	4	4	4	-	3
Turkey	3	4	5	5	3	3
Croatia	2	2	4	2	4	2
mean of all EU MS	2.1	2.2	4.0	2.5	2.8	1.8

- 9 out of 17 indicators have MCD  $\leq 3$
- 3 sectoral surveys are even smoother than the average across all EU MS

# Conclusions

- BCS programme is (constantly) growing
  - Montenegrin (sa) data will be available from mid 2015 on (also Macedonian consumer data, which is not yet available)
  - Serbian (sa) data will be available from mid 2016 on
- Croatian / Turkish / Macedonian survey data is of good quality
  - **tracking performance** mostly good
  - generally acceptable **volatility levels**

*Hopefully, many analysts will discover this survey treasure.*