

The impact of ECB's quantitative easing policy on the capital flows in the CESEE region (by A. Angelovska-Bezhoska, A. Mitreska and S. Bojcheva-Terzijan)

Discussion by Ines Buono

Bank of Italy

XVIth ESCB Emerging Markets Workshop  
Rome, November 2018

## Effect of ECB's quantitative easing policy on capital flows to countries of the Central and South Eastern region

- relevant issue - international spillovers from non-standard monetary policies
- interesting sample - ECB's policies (under-explored) on countries with a close linkage to EU
- central for policy debate - as we approach normalization

## Effect of ECB's quantitative easing policy on capital flows to countries of the Central and South Eastern region

- relevant issue - international spillovers from non-standard monetary policies
- interesting sample - ECB's policies (under-explored) on countries with a close linkage to EU
- central for policy debate - as we approach normalization

- very well-executed paper (stylized facts, discussion of the channels, econometric analysis)
- push-pull factors literature
- non-structural VAR + macro-panel analysis
- **Unexpected result:** negative or insignificant impact of ECB's quantitative easing policies on capital flows into CESEE region

- very well-executed paper (stylized facts, discussion of the channels, econometric analysis)
- push-pull factors literature
- non-structural VAR + macro-panel analysis
- **Unexpected result:** negative or insignificant impact of ECB's quantitative easing policies on capital flows into CESEE region

- very well-executed paper (stylized facts, discussion of the channels, econometric analysis)
- push-pull factors literature
- non-structural VAR + macro-panel analysis
- **Unexpected result:** negative or insignificant impact of ECB's quantitative easing policies on capital flows into CESEE region

- very well-executed paper (stylized facts, discussion of the channels, econometric analysis)
- push-pull factors literature
- non-structural VAR + macro-panel analysis
- **Unexpected result:** negative or insignificant impact of ECB's quantitative easing policies on capital flows into CESEE region

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a time trend (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)



# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
  - the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
  - if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
  - what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
  - probably it's more convenient to use lagged GDP (why not growth rate?)
  - what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

# Discussion 1: the econometric specification

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 1 The parsimonious approach is desirable but there could be an omitted-variable bias
- the main coefficient of interest is  $\delta$  but ECBAS is the only time-varying (country-invariant) regressor
- if there are variables which explain capital flows and are at the same time correlated with ECBAS then  $\delta$  may be biased (for instance uncertainty indexes like VIX or EPU)
- what about adding a **time trend** (as in Ahmed, Zlate, JIMF, 2014)?
- probably it's more convenient to use lagged GDP (why not growth rate?)
- what about using the lagged dependent variable as regressor? (there is evidence that capital flows are persistent)

## Discussion 2: the crisis dummy

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \text{dummy}_t + \omega_{it}$$

- 2 The role of the crisis dummy
  - since the ECB began to expand its balance sheet after the crisis, ECBAS and the crisis dummy could be collinear and probably this is the reason why  $\delta$  becomes insignificant

## Discussion 2: the crisis dummy

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDP_{PC_{it}} + \gamma IR_{it} + \delta ECBAS_t + \text{dummy}_t + \omega_{it}$$

- 2 The role of the crisis dummy
  - since the ECB began to expand its balance sheet after the crisis, ECBAS and the crisis dummy could be collinear and probably this is the reason why  $\delta$  becomes insignificant



## Discussion 3: the panel analysis

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDPPC_{it} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 3 The choice of MG estimator (by Pesaran and Smith, 1995)
  - It allows for parameters' heterogeneity in macro-panel data models
  - However, the coefficients are consistent under **quite strong assumptions**
  - Suggestion: replicate the panel analysis using a POLS with country fixed effects

## Discussion 3: the panel analysis

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDPPC_{it} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- 3 The choice of MG estimator (by Pesaran and Smith, 1995)
  - It allows for parameters' heterogeneity in macro-panel data models
  - However, the coefficients are consistent under **quite strong assumptions**
  - Suggestion: replicate the panel analysis using a POLS with country fixed effects

## Discussion 3: the panel analysis

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDPPC_{it} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- ③ The choice of MG estimator (by Pesaran and Smith, 1995)
  - It allows for parameters' heterogeneity in macro-panel data models
  - However, the coefficients are consistent under **quite strong assumptions**
  - Suggestion: replicate the panel analysis using a POLS with country fixed effects

## Discussion 3: the panel analysis

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDPPC_{it} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- ③ The choice of MG estimator (by Pesaran and Smith, 1995)
  - It allows for parameters' heterogeneity in macro-panel data models
  - However, the coefficients are consistent under **quite strong assumptions**
  - Suggestion: replicate the panel analysis using a POLS with country fixed effects

## Discussion 3: the panel analysis

$$\frac{TF_{it}}{Y_{it}} = \alpha + \beta GDPPC_{it} + \gamma IR_{it} + \delta ECBAS_t + \omega_{it}$$

- ③ The choice of MG estimator (by Pesaran and Smith, 1995)
  - It allows for parameters' heterogeneity in macro-panel data models
  - However, the coefficients are consistent under **quite strong assumptions**
  - Suggestion: replicate the panel analysis using a POLS with country fixed effects

## Discussion 4: further suggestions

- Results are counter-intuitive and interesting interpretations are suggested to confirm/reinforce them further econometric analysis may be needed (for instance exploring more the role of uncertainty)
- what about "structural variable" which changed for some countries though time (for instance exchange rate regime)?

## Discussion 4: further suggestions

- Results are counter-intuitive and interesting interpretations are suggested to confirm/reinforce them further econometric analysis may be needed (for instance exploring more the role of uncertainty)
- what about "structural variable" which changed for some countries though time (for instance exchange rate regime)?