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**Article**

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CES Working Papers

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*Suggested Citation:* Turliuc, Dragos Gabriel; Popovici, Andreea Nicoleta (2014) : Macroprudential Instruments Used by Eastern European Countries, CES Working Papers, ISSN 2067-7693, Alexandru Ioan Cuza University of Iasi, Centre for European Studies, Iasi, Vol. 6, Iss. 1, pp. 201-209

This Version is available at:

<https://hdl.handle.net/10419/198300>

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# MACROPRUDENTIAL INSTRUMENTS USED BY EASTERN EUROPEAN COUNTRIES

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**Abstract:** *The recent financial crisis has highlighted the lack of analytical frameworks to help predict the global financial imbalances. The recent financial crisis has determined an increasing number of countries to use macroprudential instruments, in order to avoid systemic risks. According to the policy objective that wants to be achieved, country's authorities have to choose among several instruments. Work on selecting and applying macroprudential instruments is a priority in the European Union, both at a national and at entire Union. In the case of Eastern Europe countries, the authorities adopted several measures to curb bank lending in foreign currency, subject that will be treated in the present paper.*

**Keywords:** macroprudential policies; financial crisis; Eastern European Countries; Financial Stability Report.

**JEL Classification:** E52; E58; E61; G18.

## INTRODUCTION

The current financial crisis revealed that the missing pillar in the existing financial stability architecture was the macroprudential approach to financial supervision. The European Commission was aware of the importance of macroprudential tools, and so, in 2009, in the report of the Group de Larosière, the importance of this issue was highlighted by The High-Level Group on Financial Supervision in the EU.

The report concluded that the operating arrangements for supervision had not been able to prevent the occurrence of a serious financial crisis. This happened because the surveillance solutions based on national models were inadequate to the degree of integration of the EU financial markets and the large number of entities operating in different countries of the European Union. Stronger, more complex and opaque interconnections of the financial system with the real economy as well as lack of a systemic perspective in conducting the financial oversight seem to be the key lessons that come from the experience of the recent financial crisis. So, in this case, it was obvious the need of firm

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interdependences between elements of the European financial system, underlining that effect of the materialization of aggregated risks could generate even greater losses than those occurring within individual institutions.

As a result, monitoring of individual institutions turned out to be insufficient in assessing the condition of the financial system as a whole. Macroprudential supervision with its systemic perspective aiming at safeguarding the stability of the financial system as a whole complements the traditional microprudential oversight focused on the health of individual financial institutions.

## **1. MACROPRUDENTIAL INSTRUMENTS USED TO ADDRESS SYSTEMIC RISKS**

Acharya (2009) underlines the importance of macroprudential policies and shows that prudential regulation operates at a collective level, regulating each bank as a function of both its joint (correlated) risk with other banks as well as its individual risk.

The papers written by Borio (2003), Borio (2009) and Borio and Drehmann (2009) defines, compares and contrasts the macro and microprudential dimensions that inevitably coexist in financial regulatory and supervisory arrangements, examines the nature of financial instability against this background and draws conclusions about the broad outline of desirable policy efforts. Caruana (2010) and Crockett (2000) underline the fact that macroprudential policy has several advantages compared with other public policies to address systemic risk in the financial sector.

At a national level, country's authorities have used a variety of policy tools to address systemic risks in the financial sector. The toolkit contains mostly prudential instruments, but also a few instruments typically considered to belong to other public policies, including fiscal, monetary, foreign exchange and even administrative measures.

IMF conducted a survey in December 2010 to take stock of international experiences with financial stability and the evolving macroprudential policy framework. The survey was designed to seek information in three broad areas: the institutional setup for macroprudential policy, the analytical approach to systemic risk monitoring, and the macroprudential policy toolkit. The survey was sent to 63 countries and the European Central Bank (ECB), including all countries in the G-20 and those subject to mandatory Financial Sector Assessment Programs (FSAPs). The target list is designed to cover a broad range of

jurisdictions in all regions, but more weight is given to economies that are systemically important. The response rate is 80 percent.

In terms of macro-prudential tools most used, an IMF survey (2010) has punctuated the following 10 instruments that have been most frequently applied to achieve macroprudential objectives, under three types of measures:

- ✓ *Credit-related*, i.e., caps on the loan-to-value (LTV) ratio, caps on the debt-to-income (DTI) ratio, caps on foreign currency lending and ceilings on credit or credit growth;

- ✓ *Liquidity-related*, i.e., limits on net open currency positions/currency mismatch (NOP), limits on maturity mismatch and reserve requirements;

- ✓ *Capital-related*, i.e., countercyclical/time-varying capital requirements, time varying/dynamic provisioning, and restrictions on profit distribution.

When a country's authority chooses to use a specific instrument, it is well known the fact that there is usually a clearly stated policy objective when the instruments are applied. Specifically, the instruments have been used to mitigate four broad categories of systemic risk:

- ✓ Risks generated by strong credit growth and credit-driven asset price inflation;
- ✓ Risks arising from excessive leverage and the consequent deleveraging;
- ✓ Systemic liquidity risk;
- ✓ Risks related to large and volatile capital flows, including foreign currency lending.

The recent financial crisis has prompted an increasing number of countries that use macroprudential instruments, and with greater frequency. According to the IMF survey, two-thirds of the respondents have used various instruments for macroprudential objectives since 2008. Emerging market economies have used the instruments more extensively than advanced economies, both before and after the recent financial crisis. Elements of a macroprudential framework existed in some emerging market economies in the past, when they started to use some of the instruments to address systemic risk following their own financial crises during the 1990s. For these countries, the instruments are part of a broader “macro-financial” stability framework that also includes the exchange rate and capital account management.

The recent crisis has also led to an increase in the number of advanced countries that deploy the instruments within a more formal macroprudential framework. The work of the European Systemic Risk Board is an example.

Work on selecting and applying macroprudential instruments is a priority in the European Union (EU), both at a national and at a Union level. The European Systemic Risk Board (ESRB) was established as of January 1, 2011, in order to provide warnings of macroprudential risks and to foster the application of macroprudential instruments.

Macroprudential instruments have a particular relevance in the EU context, given the constraints on macroeconomic and microprudential policies and their coordination, including the absence of national monetary policies and policies to harmonize capital standards. The ESRB has an additional role to foster “reciprocity” through its “comply or explain” powers amongst the national authorities, so that all banks conducting a particular activity in a country will be subject to the same macroprudential instrument irrespective of the bank’s home country.

The European Commission has been focusing on countercyclical capital as the main macroprudential instrument. Other agencies, as well as some national authorities, propose casting the net much wider, to take account of regional, national, sub-national, or sectoral conditions. For instance, with real estate lending having been central to past financial crises, there is likely to be a focus on instruments such as the loan-to-value ratio.

## **2. ADVANTAGES AND FACTORS INVOLVING THE USE OF MACROPRUDENTIAL INSTRUMENTS**

Macroprudential policy has several advantages compared with other public policies to address systemic risk in the financial sector. In their survey responses, country authorities indicate that macroprudential instruments are less blunt than monetary tools, and are more flexible (with smaller implementation lags) than most fiscal tools. Many instruments (e.g., caps on the LTV, DTI, foreign currency lending, and capital risk weights) can be tailored to risks of specific sectors or loan portfolios without causing a generalized reduction of economic activity, thus limiting the cost of policy intervention.

Some countries have imposed caps on foreign currency lending, for example, because these target excessive lending in foreign currency directly in a way that no other policies can. These instruments are especially useful when a tightening of monetary policy is not desirable (e.g., when inflation is below target).

Country authorities indicate that they choose instruments that are simple, effective, and easy to implement with minimal market distortions. They consider it necessary that the choice of macroprudential instruments be consistent with other public policy objectives (fiscal, monetary, and prudential).

They also believe it important to choose macroprudential instruments that minimize regulatory arbitrage, particularly in advanced economies with large nonbank financial sectors and complex and highly interconnected financial systems.

A number of factors seem to influence the choice of instruments.

✓ *The stage of economic and financial development* is one such factor. In general, emerging market economies have used macroprudential instruments more extensively than advanced economies. This may reflect a greater need to address market failures where financial markets are less developed and banks usually dominate relatively small financial sectors. Emerging market economies are more concerned about systemic liquidity risk and tend to use liquidity-related measures more often. Advanced economies tend to favor credit-related measures, although more of them are beginning to use liquidity-related measures after the recent crisis.

✓ *The exchange rate regime appears to play a role in the choice of instruments.* Countries with fixed or managed exchange rates tend to use macroprudential instruments more since the exchange rate arrangement limits the room for interest rate policy. In these countries, credit growth tends to be associated with capital inflows as the implicit guarantee of the fixed exchange rate provides an incentive for financial institutions to expand credit through external funding. Credit-related measures (e.g., caps on the LTV and ceilings on credit growth) are often used by these countries to manage credit growth when the use of interest rates is constrained. They also tend to use liquidity-related measures (e.g., limits on NOP) to manage external funding risks.

✓ *The type of shocks is another factor that may influence the choice of instruments.*

Capital inflows are considered by many emerging market economies to be a shock with a large impact on the financial sector, given the small size of their domestic economy and their degree of openness. Some Eastern European countries have used credit-related measures (e.g., caps on foreign currency lending) to address excessive credit growth resulting from capital inflows. In Latin America, several countries (e.g., Argentina, Brazil, Colombia, Peru, and Uruguay) have also used liquidity-related measures (e.g., limits on NOP) to limit the impact of capital inflows. In the Middle East, some oil exporters with fixed exchange rates have also used credit-related measures to deal with the impact of volatile oil revenue on credit growth. Unlike other policy tools aimed at the volume or composition of the flows (e.g., taxes, minimum holding periods, etc.), macroprudential instruments are more directly aimed at the negative consequences of inflows, i.e., excessive leverage, credit growth and exchange rate induced credit risks that are systemic.

### **3. THE USE OF MACROPRUDENTIAL INSTRUMENTS BY EASTERN EUROPE COUNTRIES**

*In Eastern Europe*, the authorities adopted several measures to curb bank lending in foreign currency. The instruments appear to have been effective in slowing credit growth and building capital and liquidity buffers, although they were circumvented partly as lending activity migrated to nonbanks (leasing companies) and to direct cross-border lending by parent banks.

Moreover, the number of countries that have used macroprudential instruments in a systematic way is small since macroprudential policy frameworks have been put in place only recently, limiting the degree of confidence in any statistical analysis. In addition, establishing causality is not straightforward, or even feasible in some cases, with a selection bias that favors high risk countries where policies are implemented in reaction to adverse economic or market developments.

Macroeconomic conditions in a number of Eastern European countries were buoyant in the mid-2000s. Optimism about the region's prospects stemmed from its closer integration with the European Union (EU), with EU accession by Poland in 2004, and Bulgaria and Romania in 2007. GDP growth between 2003 and 2008 was strong, and current account balances showed large deficits (except Poland), financed by even larger net capital inflows. Credit growth boomed during this pre-crisis period, with

credit/GDP increasing by 19 percentage points in Croatia and as much as 45 percentage points in Bulgaria. At the same time, the large capital inflows led to strong asset price growth and increasing household and corporate indebtedness.

The primary risk that needed to be addressed was systemic risk arising from currency induced credit risk. Specifically, with the rapid expansion in credit (a significant portion of which was offered in foreign currency), rising asset prices, and increasing private indebtedness, the ability of unhedged borrowers to repay would be undermined in the event of a large depreciation.

As it can be seen in the following table, authorities from different countries of Central and Eastern Europe have used from 0 to 6 instruments in order to avoid systemic risks.

**Table 1 - Intensity of use of the instruments**

Instrument	Country	R	C	P	H	R	Cr	S	B	Se
caps on the loan-to-value ratio		0	0	0	3	2	3	0	4	0
caps on the debt-to-income ratio		6	0	3	3	5	3	0	0	5
caps on foreign currency lending		0	0	6	3	5	0	0	0	6
ceilings on credit or credit growth		0	0	0	0	0	6	0	0	0
limits on net open currency positions/currency mismatch		3	0	0	2	1	4	0	0	5
limits on maturity mismatch and reserve requirements		0	0	0	0	1	0	1	0	0
Reserve requirements		5	0	2	0	5	5	0	6	2
time-varying capital requirements		0	0	0	0	0	5	0	6	6
dynamic provisioning		5	0	0	0	4	5	0	6	0
restrictions on profit distribution.		0	0	2	0	2	0	1	0	2

Source: *Lim, C. ş.a., 2011. Macprudential Policy: What Instruments and How to Use Them? Lessons from Country Experiences, IMF*

Working Paper 11/238, octombrie 2011, pg.16

where: 0 represents no use of instruments, and 1 denotes the use of a single instrument. For each of the following attributes, i.e., multiple, targeted, time-varying, discretionary and used in coordination with other policies, the value of 1 is added, R=Russia, C=Czech Republic, P=Poland, H=Hungary, R=Romania, Cr=Croatia, S=Slovakia, B=Bulgaria, Se=Serbia

The instruments had been effective in slowing credit growth and building capital and liquidity buffers in these countries. The combination of measures created capital and liquidity buffers that helped most of these countries' banking systems withstand the financial crisis fairly well even as credit quality deteriorated.



## CONCLUSIONS

National financial systems constitute a patchwork of differences and specificities at macro- and microeconomic levels. Attempts to pursue a one-size-fits-all macroprudential policy by introducing the same calibrations of instruments for different national financial systems without the possibility of national authorities to react could result in policies that are set too tight for some member states or too loose for others. Subsequently, this could have important consequences for the supply of financial services or could lead to insufficient systemic resilience. Finally, this could contrary to the policy makers intentions and objectives of the single market result in a situation that the stability of both the national and EU wide financial system would not be assured.

Furthermore, the fact that national authorities would not exercise the same powers as the European Commission means that the national policymakers would in fact not be able to carry out their macroprudential mandates. The inability to take necessary remedial actions through the use of prudential instruments when the downturn comes could raise questions about their accountability and responsibility for protecting the financial stability on a national level. As a result, the credibility of macroprudential mandates and powers could be undermined. At the same time, member states are responsible for the stability of their financial systems and bear the fiscal consequences of a potential crisis.

To this end, EU wide regulations should strive to avoid creating the potential conditions that may lead to an internalization of benefits and nationalization of losses. The need for nationally-calibrated policies has been already widely acknowledged.

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