Dan Constantin Olteanu[1]

OVERLENDING AND FINANCIAL INSTABILITY IN EASTERN EUROPE DURING THE CRISIS*

The recession in Eastern Europe was amplified by a multitude of structural weaknesses developed before the financial crisis emerged. In the present study we investigate the degree to which bank credit is responsible for these imbalances. First, we assessed the relationship between private credit and the decrease of household financial stability, which in turn is proved to have contributed to an increasing percent of impaired loans. Second, we analyze the link between private credit and asset prices. The results show that housing price increase is highly explained by private credit growth, together with current and capital transfers from abroad. The share price index is influenced by private credit and FDI, but the correlation is weaker. Lastly, we found a considerable influence of private lending growth on non-tradable goods prices – real exchange rate – but not on the export real growth. The influence of credit is also strong when focusing on imported goods demand.
Keywords: *overlending, credit, debt, asset prices, Eastern Europe.*

Ден Константин Олтеану

ПЕРЕКРЕДИТУВАННЯ І ФІНАНСОВА НЕСТАБІЛЬНІСТЬ У СХІДНІЙ ЄВРОПІ ПІД ЧАС КРИЗИ

У статті показано ступінь економічного спаду у Східній Європі, який посилюється безліччю структурних недоліків, що виникли до початку фінансової кризи. Досліджено, в якій мірі банківські кредити відповідальні за ці дисбаланси. По-перше, оцінено взаємозв'язок між приватним кредитуванням і зменшенням фінансової стабільності сімей, що, у свою чергу, збільшило відсоток проблемних кредитів. По-друге, проаналізовано взаємозв'язок між приватним кредитуванням і цінами на активи. Результати показали, що збільшення цін на житло великою мірою пояснюється зростанням приватних кредитів, а також поточними і капітальними трансфертами з-за кордону. Індекс курсів акцій знаходиться під впливом приватних кредитів і прямих іноземних інвестицій, але кореляція слабкіша. Нарешті, виявлено значний вплив зростання приватного кредитування на ціни неринкових товарів – реальний обмінний курс – але не на реальне зростання експорту. Вплив кредитування також сильний у випадку попиту на імпортні товари.
Ключові слова: *перекредитування, кредити, борги, ціни на активи, Східна Європа.*
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Дэн Константин Олтеану

ПЕРЕКРЕДИТОВАНИЕ И ФИНАНСОВАЯ НЕСТАБИЛЬНОСТЬ В ВОСТОЧНОЙ ЕВРОПЕ ВО ВРЕМЯ КРИЗИСА

В статье показана степень экономического спада в Восточной Европе, которая усиливается множеством структурных недостатков, возникших до начала финансового кризиса. Исследовано, в какой степени банковские кредиты ответственны за эти дисбалансы. Во-первых, оценена взаимосвязь между частным кредитованием и уменьшением финансовой стабильности семей, что, в свою очередь, увеличило процент проблемных кредитов. Во-вторых, проанализована взаимосвязь между частным

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кредитованием и ценами на активы. Результаты показали, что увеличение цен на жилье большой мерой объясняется ростом частных кредитов, а также текущими и капитальными трансфертами из-за рубежа. Индекс курсов акций находится под влиянием частных кредитов и прямых иностранных инвестиций, но корреляция слабее. Наконец, обнаружено значительное влияние роста частного кредитования на цены нерыночных товаров – реальный обменный курс – но не на реальный рост экспорта. Влияние кредитования также сильно в случае спроса на импортные товары.
Ключевые слова: *перекредитование, кредиты, долги, цены на активы, Восточная Европа.*

Introduction. Eastern European economies are some of the most affected ones by the economic crisis that started in 2007. The magnitude of crisis' impact was largely determined by financial imbalances already existing when the external economic instability spread in Eastern Europe. In the last two decades, the CEE economies have undergone extensive privatization of the banking sector as well as liberalisation of capital flows, which gained higher returns. The banking system, generally consisting of branches of foreign banks, has become an agent for carry trade[2] of foreign creditors who transferred to domestic debtors the interest rate and currency risk associated with long-term loans (Kattel, 2010). For example, in Baltic countries, bank external liabilities amounted to half of total liabilities.

Foreign funding of banks, as loans and deposits, caused overlending and increased internal private debt, which added to the external private debt. On this background, the effects of the global crisis – consisting in diminishing foreign funding, currency depreciation, diminishing export due to the contraction of foreign markets and slowing-down of economic activity – obviously diminished incomes and worsened the private sector balance sheet. The effect was a severe diminution of consumption and decreasing capacity to repay the loans which hindered economic revival, lowered the quality of bank assets, increased the credit risk and banking system fragility.

The literature contains numerous studies showing negative effects of overlending. As shown in Minsky's financial fragility theory (1992a,b)[3], there is a general frend of private economic actors making irrational decisions and overborrow during the economic prosperity periods, due to the positive expectations regarding investment return (Palley, 2006). Initially, high economic growth periods correspond to high debt levels, which in turn will sustain the growth. Progressively, a deterioration of the internal balance-sheet of non-financial economic actors (households, companies, government) occurs. Thus, economic units successively pass through 3 stages, corresponding to their indebtedness and liquidity: hedge units, speculative units, Ponzi units. As the interest payments and the debt/income ratio increase, economic activity will slow down. Thus, the economy will periodically tend to instability and collapse, because the real sector cannot generate the cash-flow necessary to sustain such financial claims (Crotty, 2009).

[2] Carry trade consists in investing capital in currencies at higher interest rates as against the initial currency of the capital. The profit is proportional to the difference between two interests. Although, theoretically, the currency with a higher interest rate appreciates in relation to the other one, it is because of currency market imperfections or interventions of the central bank that this does not happen, and profit is gained from such operations.

[3] For the extensive analysis of models of financial instability developed by Minsky and the followers of his theories (Taylor & O'Connell, Foley, Vercelli and others) see Palley (2009) and Iancu (2010).

On the other side, McKinnon and Pill (1994) Sachs, Tornell and Velasco (1997), Corsetti, Pesenti and Roubini (2001) and others, studying the crises in South America, Mexico and Asia, showed that the substantial inflows of foreign capital are giving rise to an increase of the aggregate demand and an excessive lending (from the reasons detailed in the next section), with all the negative effects arising from here: increase of consumption and deterioration of the current account balance, increase of prices for non-tradable goods and appreciation in real terms of the currency, decrease of competitiveness and economic growth. Moreover, Gavin and Hausmann (2006) conclude that almost every financial crisis of the analyzed countries was preceded by a fast increase of bank lending, measured as proportion in GDP. Also, Eichengreen and Arteta (2000) calculated that 1% increase in domestic credit rate (relative to average) increases the probability of banking crisis in the following year by 0.056%.

Finally, overlending involves the formation of speculative bubbles in the real estate and stock markets, hypothesis supported by Borio and Lowe (2002), who examined graphically the apparent correlation of domestic credit and the index of asset prices, for the period 1970–2000. Also, even IMF (2009: 103) finds that in the pre-crisis period (2002–2006) the OECD economies experienced substantial appreciation of house prices with high credit expansion in relation to the domestic product, and with an important current account deficit.

In this paper we assess the influence of private credit on main financial imbalances specific to the economic crisis in Eastern European (EE) countries: household indebtedness (section 2), credit risk and bank profitability (section 3), asset prices (section 4), current account balance (section 5). We use the sample of 17 CEE countries[4], 12 CIS countries[5], Baltic countries[6], along with 17 Western European countries[7] for comparison.

Deteriorating Household Balance Sheet. The rise in bank private loans (for housing and consumption) – due to income rise, increasing prices of real estate assets used as collateral, diminishing interest rate and increasing funding sources of banks (especially external ones) – caused a growth in private sector liabilities at a higher rate than financial assets accumulation. In the same time, the coverage of debt with available income decreased. These are shown in Figures 1 and 2, by relating the financial liabilities of households to financial assets, and to the disposable income (income left after taxes). The first ratio shows the indebtedness level, while the second shows the capacity to repay the loans from available incomes, both ratios expressed as percentage points.

Regarding the first indicator – financial liabilities/financial assets – 100 pp is practically a liquidity threshold for households, which if exceeded could require selling non-financial assets (house, land etc.) to repay the debt. Although this threshold

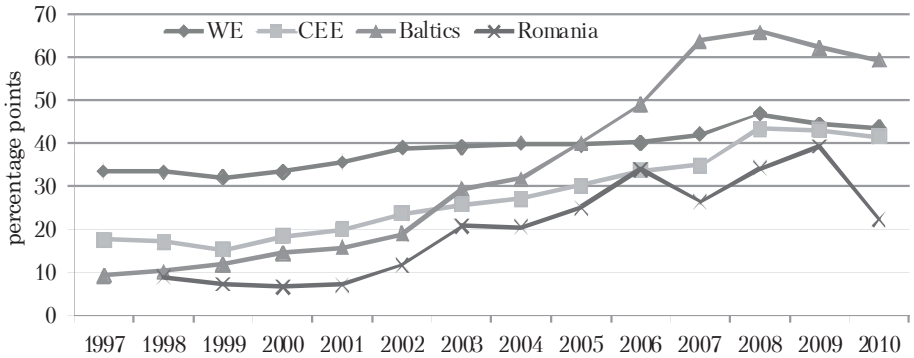
[4] Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Greece, Hungary, FRY of Macedonia, Malta, Montenegro, Poland, Romania, Serbia, Slovakia, Slovenia, Turkey.

[5] The Commonwealth of Independent States includes: Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, Uzbekistan.

[6] Estonia, Latvia, Lithuania.

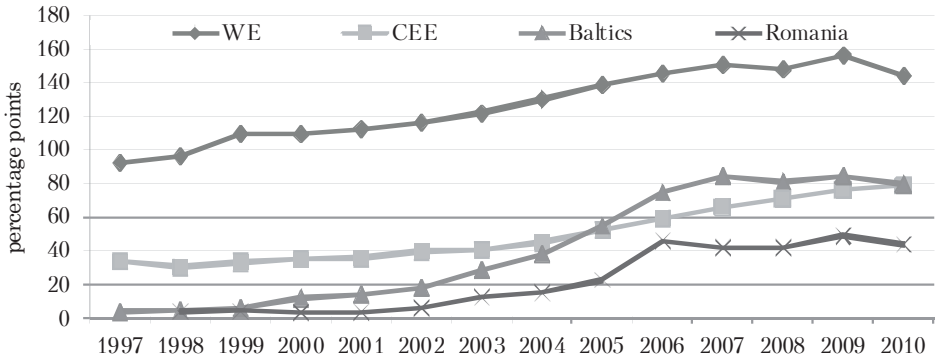
[7] Austria, Belgium, Denmark, Finland, France, Germany, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, United Kingdom.

is not reached by any country in the period analysed, in Figure 1 we notice a steep indebtedness growth in Baltic countries, especially Latvia, which in 2008 reached the financial liabilities value of 98 pp of financial assets. Among the WE countries we notice Norway, with 90 pp in 2008, Ireland – 74 pp and Denmark – 70 pp. But the overall growth was relative small in the WE countries.



Source: own calculations, based on Eurostat – Sector Accounts.

Figure 1. **Financial Liabilities / Financial Assets of Households**



Source: own calculations, based on Eurostat – Sector Accounts.

Figure 2. **Financial Liabilities / Disposable Income of Households**

Among the CEE countries, high values were recorded in Slovakia – 78 pp, while the other countries did not exceed 50 pp. The group average increased substantially and reached the WE level. In countries such as Romania, Slovakia, Russia and Turkey the installment loans prevailed, while Hungary, the Czech Republic and the Baltics invested in the real estate sector (UniCredit Group, 2007: 9). In Romania, the values are below the CEE average, but the growth rate is the same, due to the income and employment rise which led to high borrowings and consumption.

According to the second indicator – the ratio of liabilities to disposable income – the WE countries rank much above the other groups, revealing a high level of financial intermediation but also a high liquidity and even solvency risk when the price of assets covering liabilities diminishes. The 2008 maximum values are found in Denmark – 315 pp, the Netherlands – 253 pp, Switzerland – 199 pp among the WE countries, and Cyprus – 180 pp among the CEE countries. The most significant rise

took place also this time in Baltic countries, especially Estonia, with 111 pp value. In Romania, the growth rate is close to the CEE average.

We conclude that, although substantially growing prior to the financial crisis, the household incomes were mainly used for consumption and less for saving, which made the accumulation of liabilities (almost all – bank loans) be higher than the increase in incomes and financial asset value. This exposed households to the risk of possible shocks caused by interest rate, exchange rate, asset prices, incomes or unemployment.

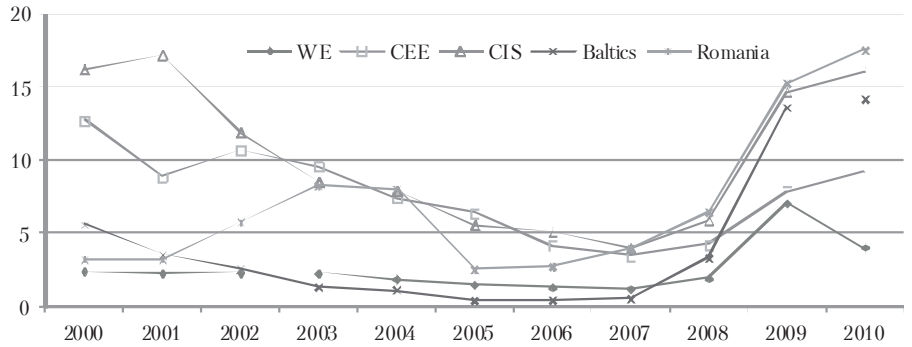
2007 was the last year of the financial assets accumulation, especially through deposits and higher capitalisation, based on price increases, of the stock exchange. The drop of financial assets in 2008 caused a peak of liabilities/assets ratio. Since 2009, credit granting drastically diminished in the context of reducing external funding of banks, causing a decrease in household liabilities, relative to assets. On the other side, incomes also diminished, so that the liabilities/income ratio kept raising. A survey conducted by UniCredit Group (2009: 12) shows that one-third of CEE households spend on loans over 20% of the monthly income. At the same time, the nominal depreciation of the currency raised the value of monthly payments and increased the burden of debt service. In 2008, the FX credit value in Romania represented half of the private sector credit (BNR, 2008: 31). Therefore, the debt service became more difficult and non-performing loans (NPL) increased. For example, households NPLs increased from 2.4% in December 2008 to 6.9% in June 2010 (BNR, 2010: 10–11). The problem of repaying the loans might have caused a deleveraging process (selling assets to repay debts) of the CEE's households, which kept constant for a while the liabilities/assets ratio.

As the effects of default are extremely serious, the role of banks in tempering lending to individuals (according to incomes) is crucial. A relaxed credit policy leads to moral hazard and increase in liabilities faster than assets, as noted above. Moreover, low wages in CEE do not allow a substantial saving rate, so the ability to return the debt largely depends on income fluctuation, generating more frequent bad loans and financial sector distress.

Increasing Credit Risk and Banking Sector Instability. Although CEE countries did not face a bank exposure to the "toxic" assets from the USA, the financial sector's stability and profitability were worsened by the steep decrease of external funding, and also by private indebtedness causing non-performing loans (NPLs). Previously, foreign loans to CEE banks were based on excess liquidities at external markets (low cost of funding), the gradual decline in deposit interest rate, and also on the reducing share of deposits in financing bank assets. The result of this funding is felt in high lending rate which generated the accumulation of household indebtedness (Figures 1–2).

The increased indebtedness of private sector and the subsequent balance sheet deterioration caused an increase in *NPLs* (Figure 3), after a period of substantial diminution between 2001 and 2007 – mainly due to income rise. In 2009, all group averages almost doubled as compared to 2008. Starting with 2009, the values recorded by Romanian banks ranked above the average of CEE, but below the CIS and the Baltics. At the CEE group level, Romania (11.9%) was exceeded in 2010 only by Albania, Bosnia, Bulgaria, Serbia. We notice that in the Baltics NPLs started to

increase in 2006, that is, 2 years *before* the economic crisis. This confirms that the main factor of NPLs was the indebtedness of the private sector, while the subsequent income diminution due to the contraction of the real economy was only a secondary worsening factor, while for other countries – the trigger. Also, credit risk further limits the credit supply of banks, which in turn affects the aggregate demand.



Source: own calculations, based on World Bank – Financial Sector.

Figure 3. **Bank NPLs,** *% of total loans*

The degree to which NPLs in the period 2008–2010 are related to the growth of private credit and household indebtedness in the pre-crisis period (2003–2007) is revealed in Table 1. The values of the determination coefficients are not very high but we may say that the reduction in financial assets to cover disposable income had an important role in their ability to return credits during the crisis.

Table 1. **The Relationship Between Private Sector Indebtedness and NPLs**

Factors / Dependent Variable	Private Credit to GDP, average annual growth rate 2004–2007	Financial liabilities / Disposable Income of households, average annual growth rate 2004–2007
Non-performing loans (% of total loans), average 2008–2010 - *all countries* -	0.22*** (5.10)	0.22*** (6.29)
R^2	0.41	0.62
F	25.99	39.55
Observations	39	26

Note: table includes regression coefficients and t-test values in brackets.
***, **, and * denote statistical significance at, respectively, 1%, 5%, and 10% levels.
Source: Own calculations, based on Eurostat – Sector Accounts, World Bank – Financial Sector.

Of course, the liabilities/disposable income ratio measured at national level is not relevant for assessing the financial stability degree, because liabilities and income are not uniformly distributed among households. In this regard, Eggertsson and Krugman (2010) argue that precisely this asymmetry (very difficult to quantify) of indebtedness is the root cause for reducing aggregate demand and recession. Therefore, the above correlations cannot have high amplitudes.

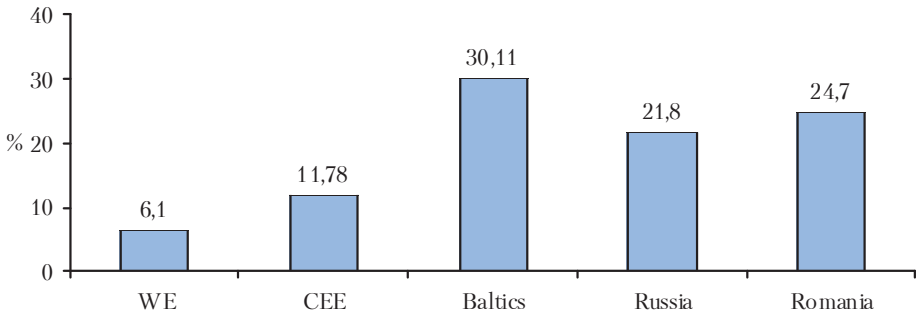
Since 2007–2008, the increased financing cost due to the interruption of external funding, together with decreasing revenues and increasing failure of private

debtors to repay credits, all these have caused a considerable deterioration of the financial status of banks, especially of those facing higher leverage. The financial crisis caused major changes in the banking systems of European countries consisting in: deleveraging, increasing solvency ratio (capital/assets), diminution in operating profit, increasing interbank funding cost, NPLs, expenses on loss provisions. Therefore, bank profitability was strongly affected. In the case of Romania, bank profitability started to decrease first between 2005 and 2007 due to the higher equity and asset growth, compared to the net profit. The rate of the latter was moderate because of the decline in interest spread between funding and lending, generated by the increasing bank competitiveness. The losses caused by reducing interest spread had to be compensated by increasing the credit volume, which required increasing provisions for NPLs, therefore affecting the profitability through costs. Another factor was the rising costs caused by the enforcement of the Basel II regulations; otherwise voluntary, their implementation in the EU member countries is mandatory for banks and investment funds. Finally, the return was affected by National Bank of Romania (NBR) regulations on the increase in reserve requirements for FX loans and in loan-loss provisions (which further turned out to be a very useful decision).

In the WE countries, the impact of financial crisis occurred faster, mainly through the financial channel, shattering bank profitability since 2008. In the CEE countries, the crises occurred later, the impact was gradual but deeper; the bank profitability plunged into negative values in the Baltics, the CIS and in the CEE countries such as Romania and Greece.

Many of the CEE foreign banks were supported by the governments in their countries of origin. Others, such as Nordic banks having branches in Baltic countries, preferred to diminish external exposure. Finally, in the CIS countries such as Russia, Ukraine and Kazakhstan, some banks were taken over by the state. Most of the foreign capital banks in the CEE protected the banking system from the external crisis by means of liquidities provided by mother banks. In this respect, the commitment of these banks to maintain the assets and even to recapitalize their branches in the CEE countries such as Hungary, Romania, Latvia or Serbia is meant to maintain bank stability and to diminish the foreign investors' perceived risk. On the other hand, the foreign ownership of domestic bank caused the dependence of internal credit on the financial status of foreign banks and their readiness to carry on funding.

Overlending, Capital Inflows and Asset Prices. Another financial imbalance, presumably caused by overlending, was the significant rise in prices in the real estate sector and capital markets. In the CEE countries, *housing prices* (Figure 4) were strongly stimulated by the increasing demand, both from residents (due to the increasing loans, incomes and current transfers from abroad) and foreigners (including speculative investments). Equally, an important roll in the rising prices was played by the smaller supply in relation to the demand in the capital and large cities, along with the previous dwelling undervaluation. Finally, as UniCredit (2008a) argues, in the Czech Republic, Slovakia, Hungary and Croatia the real estate credits were supported by fiscal incentives. Therefore, in some CEE capitals (including Bucharest), the prices came closer to those in the WE countries, in conditions of a very big difference between incomes.

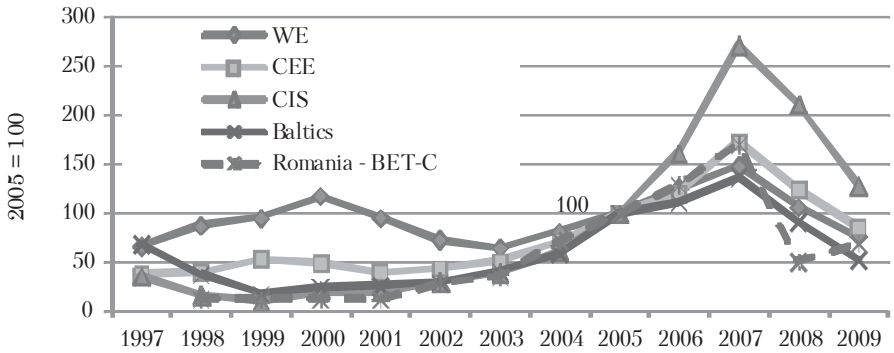


Source: OECD Key Tables and UniCredit Group (2008: 9).

Figure 4. **House Price Real Growth Rate, Price Index**

The rising housing prices caused an increase in the mortgage payments and their share in debtors' incomes, along with a decreasing affordability of housing. The latter progressively led to a diminution of prices in some countries since 2006, both in the Western and in the Eastern Europe. Later, the financial crisis diminished both incomes and investments, further reducing the prices.

Regarding the *capital market,* the share price indexes rose (Figure 5) mainly due to the underestimated initial prices, the favourable macroeconomic conditions, and the absorption of an important part of foreign investments. In this context, we estimate that the market capitalisation increase in 2001–2007 was mostly based on prices and less on new bond issues, or a volume increase of the existing ones. The effect of the financial crisis was the withdrawal of foreign portofolio investments, together with the shift of domestic capital from the capital market and investment funds to bank deposits – perceived as having a lower risk level. All contributed to the stock exchange price diminution since 2008, and a higher volatility caused by uncertainty.



Source: IMF – International Financial Statistics and the Bucharest Stock Exchange.

Figure 5. **Share average (2004–2007)**

Table 2 reveals the influence of credit-to-GDP *ratio* growth rate and various forms of capital inflows (% of GDP), on real estate and stock price growth rate.

The results show that both credit and foreign capital induced asset price increases. If house prices, their variation is explained mainly by increased lending (72%), but also by current transfers (including amounts sent from abroad by residents) and cap-

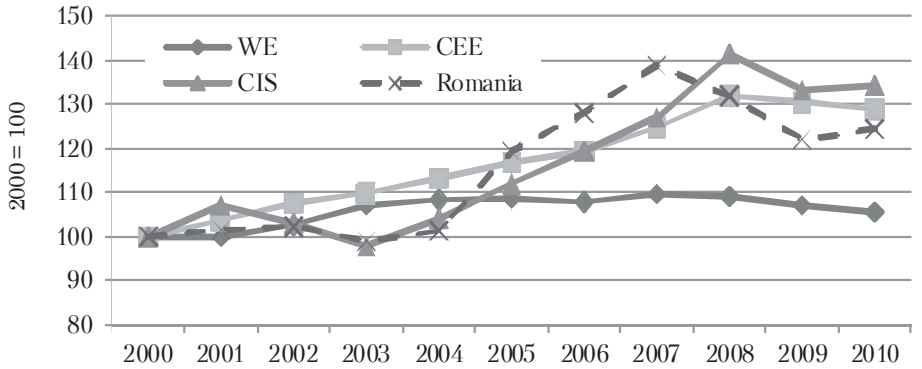
Table 2. **The Influence of Credit and Capital Inflows on Asset Prices**

Factors / Dependent Variables	Domestic credit to private sector (% of GDP), average annual growth rate 2004–2007	FDI flows % of GDP), average 2004–2007	Foreign equity investment flows (% of GDP), average 2004–2007	Current trasfers flows (% of GDP), average 2004–2007	Capital transfers flows (% of GDP), average 2004–2007
House prices, average annual real growth rate 2004–2007 *- all countries -*	0.86*** (7.29)	-	-	4.56*** (4.50)	13.84*** (4.50)
R^2	0.72	-	-	0.54	0.54
F	53.16	-	-	20.23	20.24
Observations	23	-	-	19	19
Share price index, average annual growth rate 2004–2007 *- all countries -*	1.02*** (4.73)	0.82** (2.44)	1.51 (0.63)	-	-
R^2	0.45	0.17	0.02	-	-
F	22.38	5.95	0.40	-	-
Observations	29	31	28	-	-

Note: table includes regression coefficients and t-test values in brackets.
***, **, and * denote statistical significance at, respectively, 1%, 5%, and 10% levels.
Source: Own calculations, based on OECD Key Tables, UniCredit Group (2008: 9), IMF – International Financial Statistics, Bucharest Stock Exchange, Eurostat – Balance of Payments.

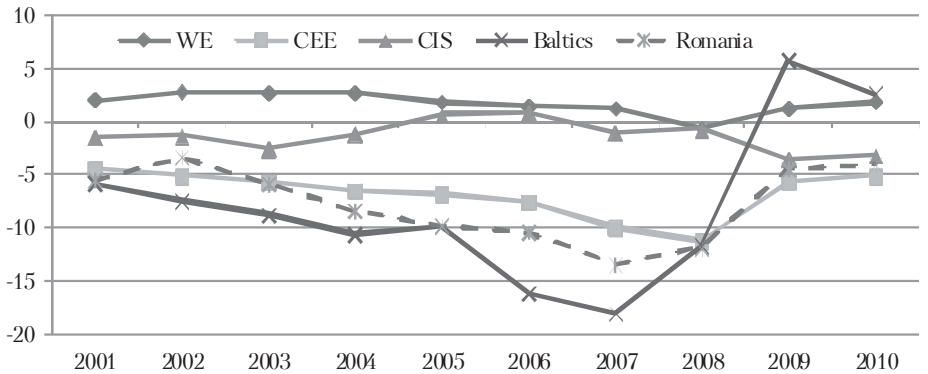
ital transfers (including asset purchases by nonresidents), as proved by the degree of determination and parameter significance. As regard the share price index, private credit, and FDI are proved to have influenced their raise, but R^2, t-test and F-test values are rather low. The foreign equity investments are not proved to have influenced asset prices. The phenomenon can be explained by investors' aversion to capital markets with high/rising prices and therefore high values of price/profit ratio.

Real Exchange Rate and Current Account Balance. CEE economies are mainly characterized by high interest and inflation levels, above the WE ones, which attracted foreign capital inflows and caused real appreciation of currency prior to the crisis. Theoretically, the substantial capital inflows led to an increase in aggregated demand and excessive lending, with the following effects: rise in the prices for non-tradable goods and currency appreciation in real terms (Figure 6), lower external competitiveness; increase in consumption of imported goods and deterioration of the current account balance (Figure 7). Table 3 displays the role of credit-to-GDP growth in these phenomena.



Source: own calculations, based on IMF – International Financial Statistics.

Figure 6. **Real Effective Exchange Rate**



Source: own calculations, based on IMF – International Financial Statistics.

Figure 7. **Current Account Balance,** *% of GDP*

Table 3. **The Influence of Credit on Real Exchange Rate, Imports and Current Account Balance**

Dependent variables / Factors	Real effective exchange rate, average annual growth rate 2004–2007	Real[1] Exports, average annual growth rate 2004–2007	Imports, average annual growth rate 2004–2007
Domestic credit to private sector (% of GDP), average annual growth rate 2004–2007 *- all countries -*	0.22*** (4.64)	0.41 (1.23)	0.68*** (9.78)
R^2	0.40	0.04	0.71
F	19.92	1.52	99.65
Observations	32	40	42
Domestic credit to private sector (% of GDP), average annual growth rate 2004–2007 *- CEE countries -*	Inssuficient data	-0.23 (-0.52)	0.66*** (6.94)
R^2		0.01	0.67
F		0.27	48.13
Observations		26	26

Note: table includes regression coefficients and t-test values in brackets.
[1] volume growth rate.
***, **, and * denote statistical significance at, respectively, 1%, 5%, and 10% levels.
Source: own calculations, based on World Bank – Financial Sector, IMF – International Financial Statistics.

Regression calculations show a significant influence of private lending growth on non-tradable goods prices – the real exchange rate. Even stronger is the correlation between debt and growth in imports, which reveals strong consumption of imported products, on credit. In this case, influence is bidirectional: it can be said that imported product supply accelerated their demand and consumer loans. On the other hand, credit-to-GDP growth rate did not influence the export growth (by inflation, increasing real exchange rate and decreasing competitiveness). This means that increasing real exchange rate is not connected with decreasing competitiveness in tradable sector (an important role in this regard could be attributed to higher competitiveness in the tradable sector, which maintained the competitiveness).

Adding the results in Tables 2 and 3, we may conclude that the capital inflows influenced, through bank intermediation, the price of non-tradable goods and real exchange rate, contributed to the rise in imported goods demand and, hence, current account deficit.

The stop of capital inflows worsened the capital account balance, which had to be covered by decreasing the current account deficit. The latter required a real depreciation of currency (by nominal depreciation, as prices are rigid on short term) to stimulate competitiveness, and/or a fall in absorption. For example, in Romania a current account balance improvement by 8.9 pp of GDP in two years (2007–2009) corresponds to a 16.8 pp decrease in the real exchange rate index.

The nominal depreciation was bigger where the initial current account deficit was severer and the currency was more appreciated in real terms. Also, the weaker the influence of the increasing real rate of exchange on tradable goods was, the bigger the need of nominal depreciation was, in order to reduce the current account deficit. The borrowing agreements with the IMF and the EU reduced the EE countries necessary

adjustment of the current account deficit and implicitly sustained the exchange rate, which had a positive effect on the currency risk. At the same time, the improvement of the current account was also caused by the decreasing capacity to import, due to low absorption.

Conclusions. Previous analysis demonstrated the role of capital inflows and excessive lending to pre-crisis accumulation of financial imbalances. The results confirm the hypothesis promoted by Minsky and his followers, namely the financial instability caused by the tendency of high indebtedness of economic actors (households, in this study) during the periods of economic expansion. Thus, before the crisis, domestic product of the EE countries allowed high incomes support which in turn has generated a tendency to overestimate the ability to return the loans, which accelerated borrowings. Gradually, the liabilities increased more in relation to financial assets and disposable income of households, the relation being dependable on consumption share, of course. In this way, even without the spread of global financial distress, private debt would have reached unsustainable levels.

The more difficult is debt payment under present decreasing revenues – generated by reducing lending, consumption, and contraction of external markets. In these conditions, domestic product can not support the required level of money supply to allow the debt returns from available incomes. This leads to bad loans and contributes to limit drastically the credit supply of banks. Stopping the external financing after 2007, together with private debt and the materialization of credit and FX risk, all these have affected the EE banking system returns, stability and credit supply. The current crisis has fully shown risks and benefits of domestic banking dependence on external finance.

There is a considerable link between credit and the increase in asset prices. Housing price raise is explained mainly by increased lending, but also by current transfers (including amounts sent abroad by residents) and capital transfers (including asset purchases by nonresidents). As regard the share price index, private lending and FDI are proved to have influenced their raise. Also, we found that bank lending influenced the real exchange rate through the price of non-tradable goods and, respectively, the rise in imported good demand.

At the time of writing[8], the financial instability is far from being completed. The strongest argument in this regard is the lack of significant economic growth but also difficulties of financial institutions, both in terms of financing and lending. The new global economic background, which apparently will last, imposes for the EE countries a replacement of the old economic growth "engine" – based on foreign capital and debt, with a more autonomous one – based mainly on internal savings and productivity. This is because foreign capital will not anymore be able to finance internal consumption, investments, and the current account deficit.

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