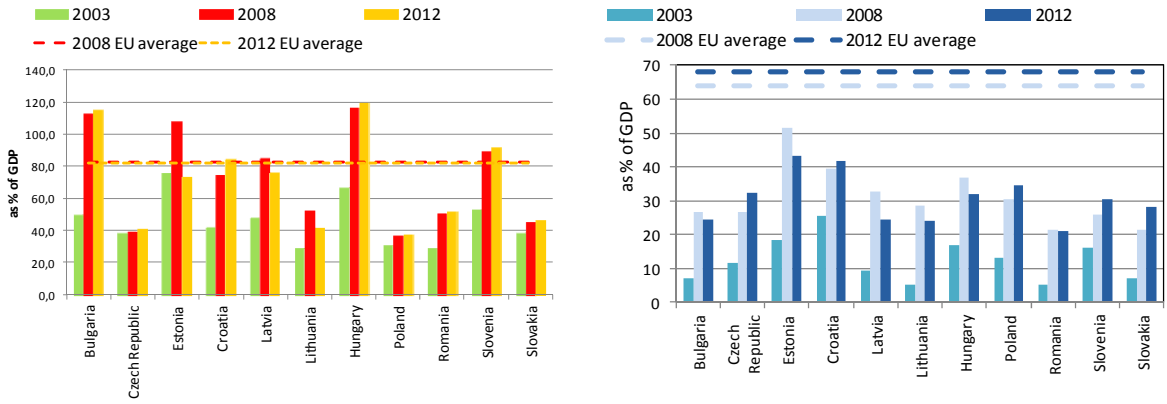
Repairing balance sheets and other challenges – the case of Croatia and other CEE countries

High credit growth rates and the significant rise in private sector debt in the CEE countries prior to the onset of the global financial crisis have generally not been perceived as a problem or potential danger. The rationale behind this way of thinking was based on the belief that these countries had been on their natural way of catching up with more developed countries through the process of real convergence. These "natural" developments have been additionally stimulated by the high level of global liquidity, low risk aversion, low interest rates in developed markets, as well as the high share of foreign banks in the banking sectors of most CEE countries, serving as an efficient transferring channel for foreign capital in search for higher returns. Despite the intensive catching-up process in the pre-crisis period, CEE countries' debt levels are still relatively low compared to the advanced European economies and neither corporate nor household indebtedness seems to be excessive.

The level of corporate sector indebtedness in the majority of the CEE countries is lower than both the commonly used threshold of 80% of GDP and the EU average (Figure 1 – left). A similar analysis shows that for the household sector this picture looks even better (Figure 1 – right).

Figure 1 Corporate and household indebtedness



Source: Eurostat.

The world financial crisis and the accompanying recession resulted in a substantial decline of the real income of households and the corporate sector in the majority of the CEE countries. Declining

income and the worsening economic outlook reduced sustainable debt levels, which in some countries prompted the adjustment of the private sector's balance sheet and resulted in deleveraging.

The adjustment of unsustainable levels of private sector debt, particularly in households, to the sources available for the servicing of this debt (current income and financial and real assets) may lead to significant economic costs in view of the importance of private consumption as one of the key generators of economic growth. It is therefore vital to achieve a better understanding of the process of household deleveraging, particularly its required intensity and duration, which is a prerequisite for creating adequate expectations of short-term and medium-term economic growth and for developing macroeconomic and macroprudential measures in line with the fundamentals.

Household sector – is there a need for further adjustment?

The most common questions associated with household indebtedness are related to the estimation of the necessary short-term balance-sheet adjustment of the household sector, the potential need for additional adjustments, and the driving forces behind the adjustment. When analysing levels of indebtedness, the question is which benchmark to use – other CEE countries, EU or EA countries, or something else. But even when the benchmark is chosen, there is still a question of how to know whether a country is over-indebted or not. Stable levels of debt in literature were until recently based on a static threshold value determined on the basis of historical data such as a specific pre-crisis level, positional value in the distribution of debt of a group of countries[1] or a trend level[2]. According to the new approach[3], the level of debt which is economically reasonable given the current level of income should be determined based on models taking into account key macroeconomic determinants. The selection of the econometric method (and the estimator) enables an individual approach and better identification of the specific country features.

According to the usual indicators it does not seem that the household sector in the CEE countries is excessively indebted. If the model for the non-risky level of indebtedness is estimated for other countries, it is expected that most of them would not "flash red". Therefore, it could be concluded

[1] The indicators of macroeconomic imbalances of the European Commission (MIP Scoreboard Indicators) take as the threshold value of the (consolidated) private sector debt to GDP ratio, the level of 133%.

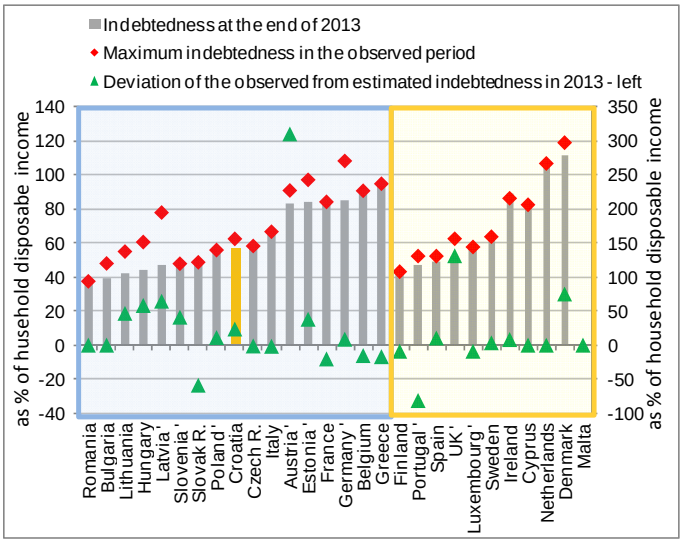
[2] Methodology of countercyclical capital buffers.

[3] Empirical research of a thus-specified optimum level of debt has only appeared recently, mainly for the United States of America, please see Albuquerque B. et al (2014): *Has US household deleveraging ended? A model-based estimate of equilibrium debt*, ECB Working paper series 1643.

that the non-risky level of indebtedness depends on the prospects of GDP growth and household income growth, which are very difficult to predict. This additionally complicates the estimation of the optimum level of household indebtedness, making it almost impossible.

In order to assess the level of household sector indebtedness, which is determined by key current macroeconomic factors and is thus country- and period-specific, as well as to determine which part of the necessary short-term balance-sheet adjustment of the household sector in the EU countries has already been made, the Croatian National Bank (CNB) has estimated a model on the basis of quarterly data for 28 EU countries in the period from the beginning of 1999 to the end of 2013.

Figure 2 Household indebtedness in the EU

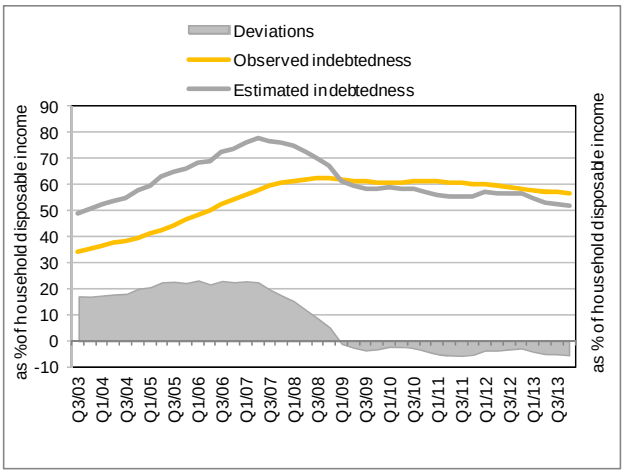


Note: Household indebtedness is measured as the ratio of loans granted to households adjusted for exchange rate changes to their disposable income and is modelled by a set of macroeconomic factors: household interest rate, homeownership rate, the consumer confidence index, unemployment rate, real GDP growth rate, the ratio of residential property prices to disposable household income. The mark ' shows the insignificance of the error correction component, i.e. its positive value.

Sources: Eurostat and CNB calculations.

In 2013, in almost one half of the observed countries households were on average capable, given the disposable income, of taking on additional debt. Croatia belongs to a group of countries with a relatively low need for further adjustment of debt to the disposable amount of income (below 10%). If the countries for which the estimated model did not prove to be statistically significant are excluded from the analysis, in the process of adjustment, under the existing conditions, 50% of deviations should be eliminated within a period of one to three years (Figure 2).

Figure 3 Observed and modelled level of indebtedness for Croatia



Note: The modelled level of household indebtedness is shown as a four-quarter moving average.

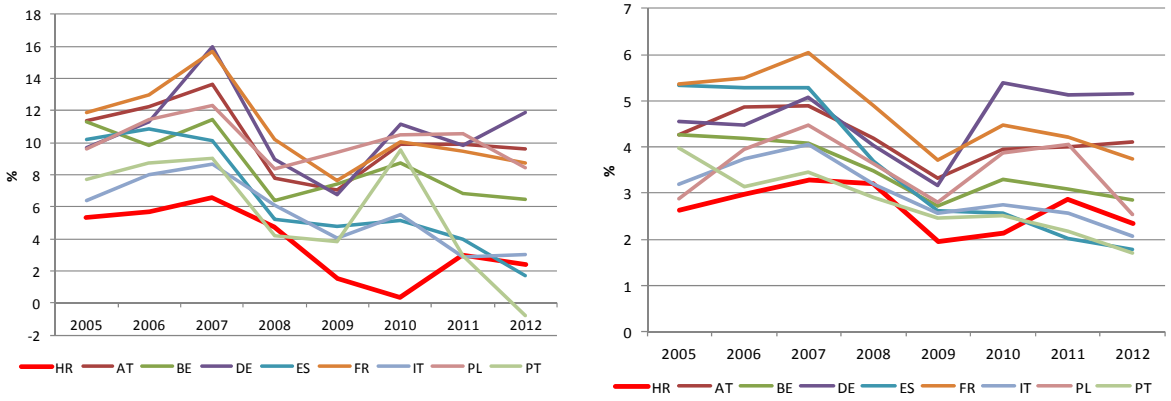
Sources: Eurostat and CNB calculations.

In the period of strong credit expansion and economic growth in Croatia, the aggregate creditworthiness of households measured by economically justified level of indebtedness rose steadily, so the underestimation of the realised levels of household debt compared to those implied by the fundamentals left room for further borrowing. However, with the slowdown in economic growth in early 2007, the potential for further borrowing first started to decline, and then vanished completely with the outbreak of the global financial crisis and its spill-over onto the domestic real sector. The last six years of recorded recession in Croatia prompted households to adjust their credit liabilities to some degree to their disposable income (since end-2008 by approximately 10%). However, this debt reduction was on average slower than the fall in income, with the result that in the entire recession period the need for further short-term household deleveraging fluctuated around a relatively low 4% (Figure 3).

Corporate balance sheet – in a need of repair

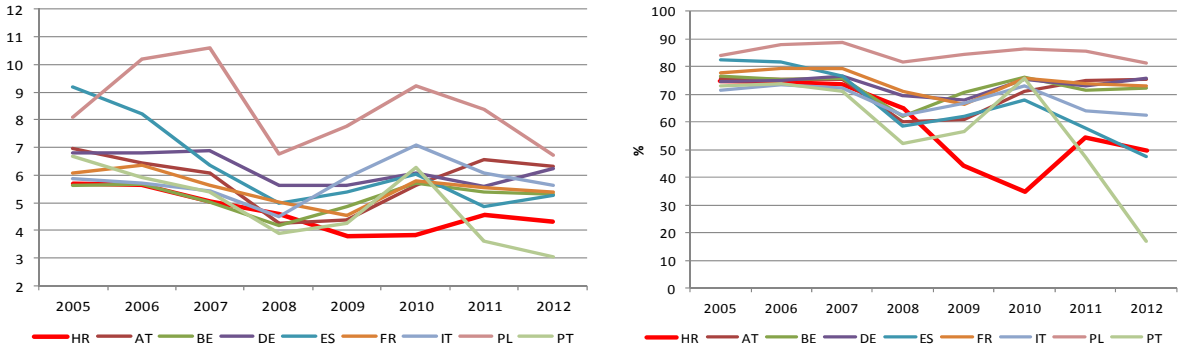
The average profitability of Croatian companies is lower than in the majority of EU countries, resulting in a relatively high debt burden compared to profits. Croatian corporate sector profitability has been relatively poor even during the pre-crisis period, while the ongoing recession has just worsened the already negative trends (Figures 4 and 5). There are many loss making enterprises, among which dominate companies from the construction sector.

Figure 4 ROA and ROE for the corporate sector



Sources: BACH (Banque de France) and Financial Agency.

Figure 5 EBITDA over interest on financial debt and EBT over EBIT



Notes: EBITDA = earnings before interest, taxes; depreciation, and amortization; EBT = Earnings before taxes; EBIT = Earnings before interest and taxes

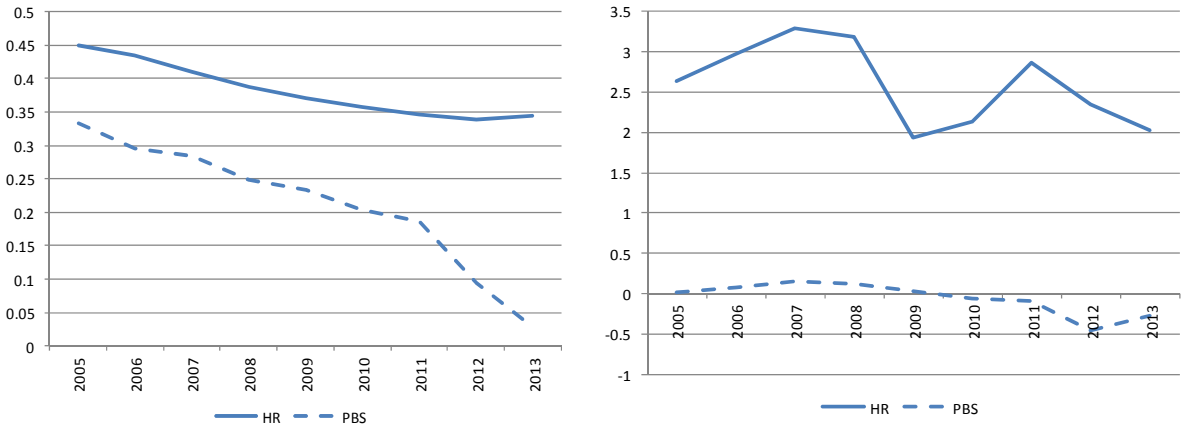
EBT/EBIT; higher values on the chart represent lower interests share in expenses and therefore lower interest burden; includes only companies with interest on financial debt.

Sources: BACH (Banque de France) and Financial Agency.

Indicators presented in Figures 4 and 5 lead to the conclusion that the need for repairing corporate balance sheets stems from the poor profitability rather than from the elevated debt. In practice, this means that the efforts to restructure the corporate sector and improve its profitability should be stepped up, while debt reduction might not resolve the underlying issue of inefficient capital allocation. Croatia has taken the first step in that direction by introducing pre-bankruptcy settlement (PBS) in order to foster corporate restructuring and resolution of NPLs. PBS started in late 2012 and represents a temporary (one-off) “Chapter 11” type of procedure aimed at fostering corporate

restructuring. Around 6.600 companies entered into this procedure, which is 7% of the total number of companies, and they employ around 55.000 people, against 850.000 in the corporate sector. An analysis of the capital to asset ratio and return to assets ratio of companies in the PBS procedure and the rest of the non-financial sector shows that companies in PBS are loss making with high leverage, what is a result of little or no capital (Figure 6).

Figure 6 Capital to asset ratio / Return on assets

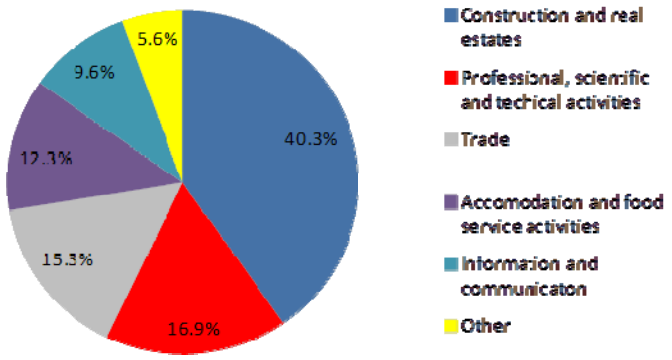


Methodology notes: *Includes total NACE for the non-financial sector without K642 (Activities of holding companies) and M701 (Activites of head offices), includes companies of all sizes; for HR: companies >1 employee. Measures represent by country/by year weighted mean ratios in %.*

Source: Financial Agency.

Banks' exposure to these companies amounts to HRK 10.5bn, which is approximately 10% of all banks' corporate exposures. Around 50% of bank clients in PBS are from construction activities, but it should be noted that a significant part of professional, scientific and technical activities are also closely linked to construction (Figure 7).

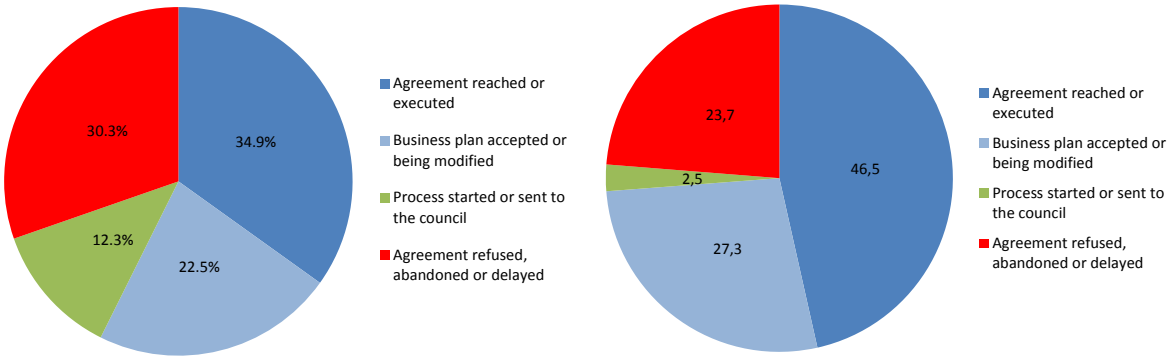
Figure 7 Structure of banks clients in pre-bankruptcy settlements



Source: Financial Agency.

The first preliminary analysis conducted after a year and a half from its introduction shows that PBS still has a long way to go, but according to the percentage of reached or executed agreements PBS for bank clients seems to be progressing slightly better than for the others (Figure 7). Ensuring profitable business models still remains one of the biggest challenges, together with the fact that most of these companies need fresh capital.

Figure 8 Progress in pre-bankruptcy settlements – all companies vs. bank clients



Source: Financial Agency.

When to react?

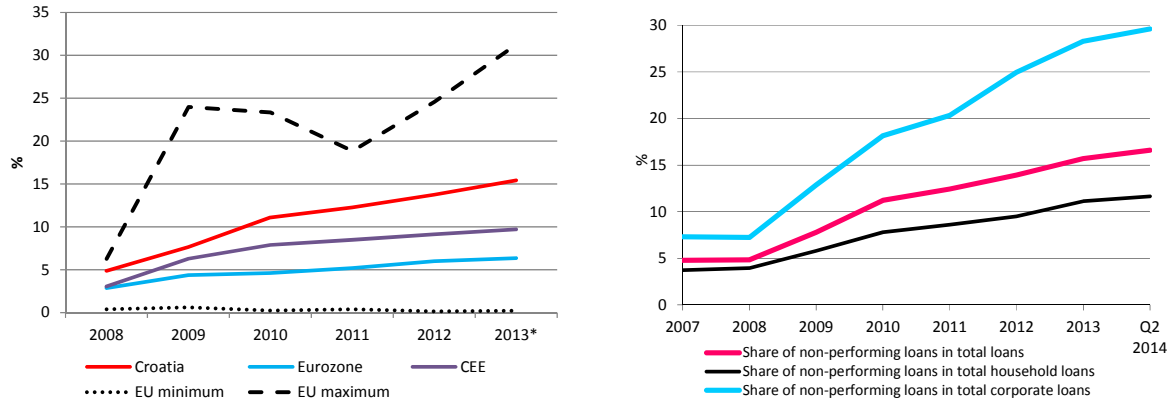
One of the main conclusions based on the analysis of private sector indebtedness is that it is almost impossible to know if there is too much credit or not. From the central bank's point of view this presents a major challenge, but it also encourages the view that policy makers should react not necessarily only to the level, but also to the rate/pace of credit growth. This means that if credit is growing rapidly, the central bank should act, even if models do not show explicitly that the growth pace is excessive.

Therefore, if the credit growth rate is high, and the analysis shows that there are signs of overheating in the economy, even without analytical confirmation of excessively high indebtedness level, it would be reasonable to conduct a policy aimed at slowing down credit activity. The Croatian case confirms this conclusion. In the pre-crisis period, the CNB had introduced a set of monetary and macroprudential measures aimed at restraining both credit growth and the build-up of external vulnerabilities, which were criticised at the time. The crisis has proven not only that the rationale for introducing such a set of measures has been right. Therefore, despite the fact that analytical tools and models often present the main tool for making decisions, which is good and necessary, central bankers and all other market participants should always be aware of potential limitations of these models.

Low credit activity – what could be done?

When trying to find an answer for stagnating credit activity in banks' balance sheets, the high level of NPLs in the CEE countries is usually seen as one of the main credit growth constraints. But this is true only if NPLs are not adequately provisioned. If a bank has an adequate provisioning policy, it is possible to dispose of NPLs or put them into the asset booth and manage them separately, leaving enough room for granting new loans. Opposite to that, if NPLs are not adequately provisioned, banks may lose a lot of energy in trying to evergreen and restructure them in order to hide the real situation in the balance sheet, which they should actually show to their shareholders, owners and depositors.

Figure 9 Non-performing loans



Source: IMF, FSI, (bank assets) weighted averages.
Note: CEE countries include Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovak Republic and Slovenia.

This implies that regulators in that area have a very important role. Considering the fact that Croatia has a higher level of the NPL ratio than the EU average, the mentioned reasons motivated the CNB to tighten provisioning standards in order to deal with seizure of collateral and thereto related procedures which create obstacles to an efficient unwinding of NPLs (Figure 9). If a bank does not adequately tackle the loan resolution process, regardless of collateral, it has to increase the provisioning level progressively with time. This means that if banks have NPLs they should account provisions, even if the loan is fully collateralized, amounting to at least 30% of loan value two years after delinquency, and then 5% subsequently every 6 months. At some point it will become very unreasonable for banks to wait and the measure will serve as an incentive to clean up the balance sheet in order to dispose of NPLs.

The other very important factor for repairing and cleaning banks' balance sheets is the surrounding in which banks operate. In that sense, the CEE countries do not represent a stimulating environment, primarily due to the fact that creditor protection rights are relatively weak as seizure of collateral is often very difficult, sometimes even impossible. In the second step this represents a serious obstacle in disposing of NPLs. This problem is very difficult to solve even if distressed debt managers are engaged; they also face the same (usually) legal problems as it gets very complicated to seize collateral or to dispose of collateral without entering into uncharted legal waters. Thus, one of the key issues for increasing the efficiency of NPL resolution is improving the legal environment in which banks, as well as potential buyers of distressed debt, operate. Unfortunately, it is impossible to make these changes in a short period of time, meaning that banks still have to rely on their prudent policies, as well as on forward looking regulators.

The high share of NPLs is also related to the elevated probability of default, which may induce banks to grant less credit. If the quality of loans is analysed according to their vintage, it can be observed that more recent loans have a lower probability of default, while the most problematic loans are those which originated in the period from 2003 to 2008. During the crisis, banks have tightened their lending standards and extended less credit, but the quality of these loans has been better than of the loans granted during the boom period. Banks' behaviour is determined not only by models, but also by people who are running the banks, meaning that the quality of granted loans does not only depend on models and risk analysis, but also on the quality of bank management, which is often neglected in the debates how to ensure good loan quality.

Concluding remarks

It is not clear that credit growth is crucial for growth as such. A detailed analysis reveals that the main problem lies in corporate balance sheets that need to be repaired primarily because of low profitability. The return on equity of companies is an important indicator in this regard and points to the heart of the problem. Efforts to restructure the corporate sector and its profitability are needed, and for that purpose Croatia has introduced pre-bankruptcy settlements.

In practice there is generally too much emphasis put on credit growth as a way of problem solving. There is no clear evidence that more credit is necessarily related to stronger economic growth. This broken link has been confirmed by the Croatian data as well, as Croatia had the highest rate of credit growth in the EU over the last five years and one of the lowest rates of GDP growth. I would say that we should look again to the familiar evidence from international finance and open macroeconomics which thought us that there is usually enough capital, but the issue is how good and how efficient is the process of financial intermediation. If the intermediary directs capital into the wrong sector or company, this will certainly reflect on the future level of NPLs and reduce the countercyclical potential of the banking sector in the downturn.

In that context, the main challenge is to find a long-term viable growth model based on improved allocation of capital and underlying corporate profitability, which will simultaneously improve the debt sustainability arithmetic. The first task, in that sense, is to repair corporate sector balance sheets, rather than focus on banks’ balance sheets and credit.