Principles of financial crises in the first two decades of the 21st century

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Abstract: - In 2007 to 2011, the world economy has experienced two financial crises – the first was the banking crisis of 2007 to 2008, while the second one is the ongoing public debt crisis that began in 2009. The question is: What comes next? Can we expect the problems to continue in the upcoming years? There has been sufficient evidence of how serious the situation is. The public budget crisis will be a long-term issue as the debts have amounted to totals that do not provide for a quick solution. And we may as well be in for a third crisis: the "household debt crisis", one whose social and political impacts will be significantly higher than those experienced during the public debt crisis. The household debt crisis has already manifested its presence in relation to the mortgage market development in the United States and the United Kingdom and is about to affect other developed countries. It will bring serious consequences, affecting larger groups of population than ever before.

Key-Words: - financial crisis, financial fragility, eurozone, household debt

1 Introduction

In the dawn of the 21st century, the world economy has experienced two significant financial crises that have proven stronger than the majority of problems that the economic world has ever faced, at least at times of peace.

The first of the two events was the deep and destructive financial crisis of 2007 and 2008, marked with events such as the fall of Lehman Brothers.

The second event is the government debt crisis which is sometimes referred to, albeit somewhat erroneously, as the eurozone crisis. The fact is, however, that it has affected public finance in basically all developed countries of the world. Formally speaking, while the downturn began in 2010, in fact its origins may be traced decades back. And it is only difficult to predict how much longer it is here to stay although the most visible signs of the crisis are likely to persist at least throughout the period of 2010 to 2015. Whether we are to see a resolution of the issues at its end remains unsure and, actually, highly doubtful. This particular crisis may be referred to as the "public debt crisis".

What comes next? We are likely to experience a third wave of deep and global financial turmoil, marked by the liquidity crisis of households in developed countries, their incapacity to honor their commitments and widespread insolvency. These three events mark the end of a certain idea of how the global financial markets work and how debtors and creditors act.

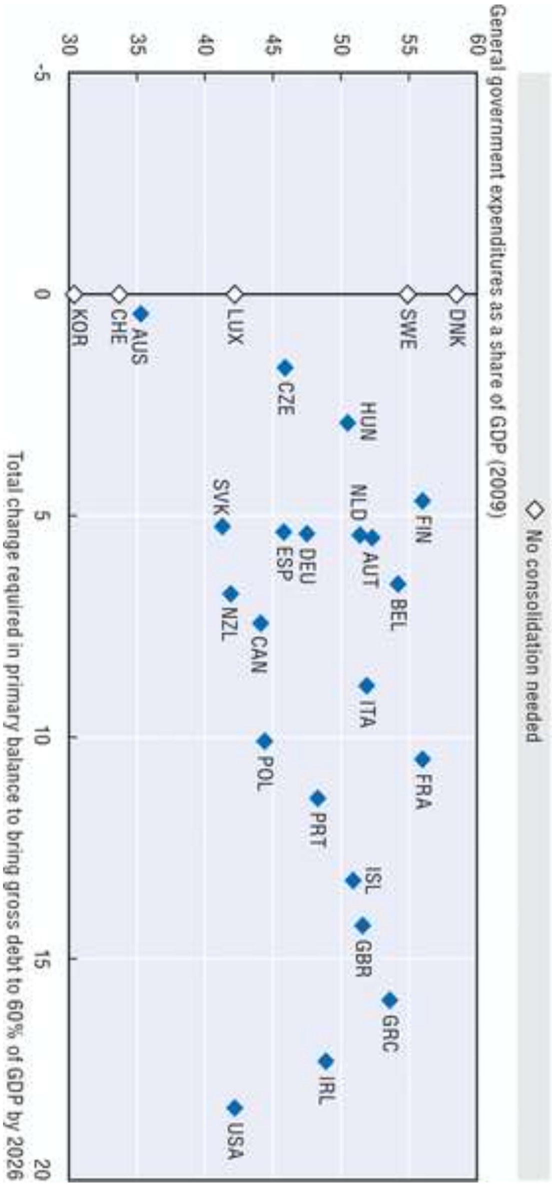
Unfortunately, this does not mean that after that there will be a period of low debts, budget discipline, careful family planning and rational treatment of finance in general.

2 Problem Formulation

Since at least 2009, throughout 2010 and 2011 (and with quite likely until 2015), public budgets in developed countries have been undergoing permanent crisis. While the majority of events marking the crisis have taken place hidden under the surface, this does not change anything about the fact that among developed countries, i.e. a group involving approximately forty countries (besides the 34 OECD members, these include other states such as Liechtenstein), there might be maybe five countries that may consider their public finance consolidated with maybe ten additional ones that are perceived as stable.

The remaining countries have been in a very difficult situation, with some of them on the verge of bankruptcy that would have in some cases materialized as early as 2009 had it not been for international aid. Here we speak of Greece, Ireland, Spain, Portugal and Italy (let alone Iceland that has actually experienced the state of bankruptcy). While the issue is to a large extent a political one, with some governments in these countries playing down the extent of problems, the fact is that if there had been no aid provided to Greece and Ireland, the resulting conditions on international markets would have led to insurmountable problems in a number of other countries.

Tab. 1: Countries in need of consolidation



Source: OECD, Government at a Glance, 2011 [1]

Table 1 shows to what extent some countries have to consolidate their budgets in the upcoming years in order to get their debts down to or below 60% of their GDP by 2026. As we may see, only several states do not have to change their behavior; the interesting thing is that these are recruited from among countries with very different levels of redistribution, ranging from those where 30% of GDP passes through the national budget to countries with taxation as high as 55 to 60% of GDP. A number of countries will have to wage dramatic budget battles to decrease their spending, i.e. they will have to significantly restructure their finance. With little surprise, these are headed by the United States, followed by Ireland, Greece, United Kingdom (whose debt levels have risen very dynamically over the recent years), Iceland, Portugal, France and Poland. If we consider the percentage reduction of their spending splurge they are to undergo in order to get their debt to GDP ratio down to maximum 60% by 2026, it is obvious that their economic growth will be significantly affected by the reduced government spending for years to come.

Based on OECD analyses [1], the impacts of the previously applied fiscal policies cannot be “grown out of”, i.e. they cannot be dealt with purely based on economic growth in the debt-plagued countries. Mere stabilization of their debts preventing further growth of debts would require a GDP growth of at least 4% a year which is a rather unimaginable level especially in the group of the most developed countries. Moreover, OECD analysts have pointed out that over the next 15 years, other phenomena will manifest their presence, putting government finance in almost all OECD countries under additional pressure. These will include aging population, with pension systems and healthcare sector presenting the greatest challenges. To compensate for these phenomena alone would require resources equal to approximately 3% of the developed countries’ GDP.

2.1 General issues of restructuring government finance

The recovery process for the finance of any government, and for that in the developed countries in particular, is economically problematic and politically even more so. The paradox we see here is similar to that apparent in corporate life cycles: a company at the beginning of its existence is more innovative and flexible as to its management style. As the company grows and needs additional capital, two developments ensue: there is some sort of change in the ownership structure, usually resulting in scattered groups of shareholders who manage the company via general meetings, the democratic controlling instrument. As the wealth of the company increases, along with wages and bonuses, employees focus more on how to maintain their employment, with ways of avoiding mistakes becoming their major concern. All this leads to a slowdown of corporate performance. While some companies overcome this problem, others gradually lose power which results in their economic death.

By the same token, developed societies undergo a certain growth of their standard of living, marked with social perquisites and generally improved quality of living. The growth in all these areas of life over the last thirty years has been enormous and, without exaggeration, never before has the increased standard of living extended to masses of inhabitants as large as the case was in the developed countries in the late 20th century and, particularly, over the last three decades prior to the financial crisis (i.e. 1977 to 2007).

However positive this trend may have been, it went hand in hand with a massive increase in the debt of the developed countries as well as of households. The question is: Can we redeem these debts or reduce them significantly without this having a material impact on the standard of living of masses of people?

The answer is: It is very unlikely.

The current debt of the United States is worth the country's annual GDP. In Japan, the debt is twice the amount of the country’s GDP, with Greece, Italy, Iceland, Portugal, Ireland and Belgium posting debts higher than their annual GDPs. France, along with several other countries, comes close. The average debt of 31 OECD countries in 2010 stood at 80% of their GDP [2], with all their debts combined totaling staggering USD 30 trillion. The debt to GDP ratio remains the worst problem and the redeeming of debt will claim a lot of sacrifices. Any future attempts at substantially reducing government debts in the developed countries will be accompanied with substantial issues of social and political character, in their extreme forms possibly endangering the very principles of democracy and free market capitalism.

2.1 The issue of decreased standard of living

The most serious issue arising from reduction of debt in the developed countries is the impacts this may have on the standard of living. Let us now attempt to examine this issue despite the nonexistence of suitable mechanisms for such calculations.

With 3% of GDP spent annually by the developed countries above their annual budgets over the last thirty or so years, the money was mostly redistributed to people via social transfers or via different forms of support. In other words, governments have become indebted in order to “distribute” approximately 3% of non-existent GDP to the inhabitants of their countries. Let us consider this a fact that these transfers amounted to the aforementioned USD 30 trillion, however problematic this thesis may be since, for example, the United States has incurred a large part of its debt in relation to the wars in Iraq and Afghanistan. Yet from a purely financial perspective this statement holds true since if money was spent on wars or any other investments (e.g. bank bailouts) then cuts should have been made elsewhere, such as in social transfers. However, this was not the case.

If a reverse “undoing” process was to materialize with a similar dynamic as the debt increase, the governments would not only have to discontinue to “corrupt” their people with 3% of non-existent GDP annually but a deficit surplus would also have to be achieved. Currently the governments only pay interests, yet the actual debts stay the same. For the sake of simplification we may say that besides the interest payments that are already considered within budget spending, additional 3% would have to be saved in order for countries to start redeeming their actual debts with creditors.

Providing for even more simplification, it would be necessary to reduce the standard of living of those social classes that receive social benefits or enjoy other forms of budget transfers (which, in developed countries, are basically all people given the wide range of state support ranging from social benefits and subsidies for building society savings schemes, to tax-deductible mortgage interests and tax credits).

It is hardly imaginable that current political representatives would prevail in the developed countries if they were willing to uphold the principles of international cooperation and honor the countries' commitments vis-a-vis creditors both locally and abroad. Iceland is a good example of a country where the state, following a series of referendums, refuses to pay debts inherited from banks in the wake of the banking system collapse. However this may be understandable from a purely human perspective, this non-compliance with the standards traditionally applied in international relations serves as a role-model situation for other indebted countries, with this sudden surge of “direct democracy” in Iceland now serving as an inspiration to various movements in Spain, Portugal, France or Italy, let alone Greece. Also in Israel almost half a million people went to the streets in protest against high prices in early September 2011. The citizens of all these countries, previously voting for governments that indebted their countries, now pretend that the debts are not theirs, claiming they want to have nothing to do with them. And it is just a matter of time before populist groups grasp the topic and put it to their use.

2.1 Household indebtedness

The debts accumulated by governments (or within the total of public budgets) are just one side of the coin. We have seen that the issue of public debts is basically unresolvable as their redeeming would result in a decreased standard of living for large groups of population, which is unlikely to be acceptable to them. Following years of uninterrupted growth of consumption, these groups are not ready to sacrifice a part of their living standard on behalf of debt repayment.

But things get even worse. While the government debts are just one part of the story, the other is family indebtedness in the developed countries that has oftentimes attained amounts comparable to the government debts.

Just to get an idea: U.S. families owe more than 100% of GDP, with their debts thus being more serious than those of the federal government [3]. The Danes owe 145% of their GDP, the Swiss borrowed approximately 120% of GDP, the British some 105%, the Canadians 90%, the Portuguese 80%, the Germans 63% etc. As we are about to use the example of the Czech Republic as a reference in many cases, it is good to note that with mere 30.8% of GDP in debts, Czech families are the top student in their class [4]. While all these figures do not seem to convey an image of tragedy, it is also important to understand that household debt is more expensive than debts of governments (or the majority of them, anyway); this is even more true for consumer loans, where the difference is substantial, as well as for mortgages.

By the way, family indebtedness is a phenomenon reserved almost exclusively to the developed economies. In countries such as India, China or Russia, debts are at approximately 10 to 12% of their respective GDPs; what is even more important, even at the time of economic boom their debt levels did not grow faster than the countries' GDP so the debt to GDP ratio has remained unaltered.

Despite the household debts attaining soaring heights, with their totals oftentimes significantly exceeding both GDP of the relevant state as well as net income of households, the debt issue is not sufficiently discussed or analyzed. This is also in part due to the fact, that the topic of household debt is overshadowed by continuous and recently also excited discussions on the dangers of public debt. To be fair however, the attention given to government debts is understandable at these times of persistent problems where dramatic attempts are made to save some countries from bankruptcy, with the matters further complicated by the situation on the financial markets.

Yet at the same time, the importance of family debt is sometimes underestimated due to several reasons, of which one is worth a more detailed analysis. It is generally believed that in the future the financial stability of families will be higher than that of states as, according to a widely accepted idea, in most countries assets of families are substantially higher than their commitments. In terms of insolvency patterns, families are thus more threatened by insufficient liquidity as opposed to excessive debts.

This opinion is however erroneous due to several reasons:

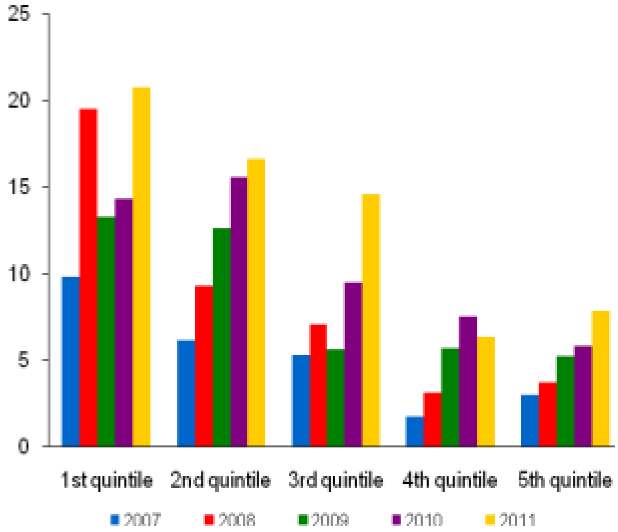
First of all, insolvency due to insufficient liquidity usually quickly develops into insolvency due to insufficient assets. The very lack of liquidity, which needs to be resolved via another loan or sale of assets, reduces the real value of the debtor's assets; additionally, liquidity crisis usually occurs under unfavorable situation on the asset market and is marked with decreasing prices of assets, with the price of money growing while the cash becomes less available at the same time. At that point, assets of the debtor are put to test which usually reveals that their real market value has decreased, sometimes significantly, and is below their book value or acquisition price.

The second reason for the opinion being ungrounded is the fact that it is based on the idea where the notions of “family” or “household” are not clearly defined. The question here is not whether the family has one, two or more members or consists of several generations but, rather, into what income and asset group such household belongs.

Speaking of financial instability of families, it is important to note that the group is very varied and shows a number of characteristics which make it very heterogeneous. And this is something that makes discussing family finance very different from discussions on the debts of governments; in the latter case we always assess each country specifically. But family groups, defined at the general level by individual states where these families have their domicile, involve families that are absolutely stable, families experiencing no major problems, families that may possibly experience problems, families that already experience problems or that are highly vulnerable as well as families that are formally or actually insolvent or have excessive debts. What we therefore need to focus more on is to what extent insolvency will become widespread and whether, as a phenomenon, it will occur with a frequency that could put the banking industry, as the major “family creditor”, at risk.

The following graph is very illustrative for our purposes.

Graph 1: Shares of insolvent households in total number of indebted households broken down by income category – simulation results



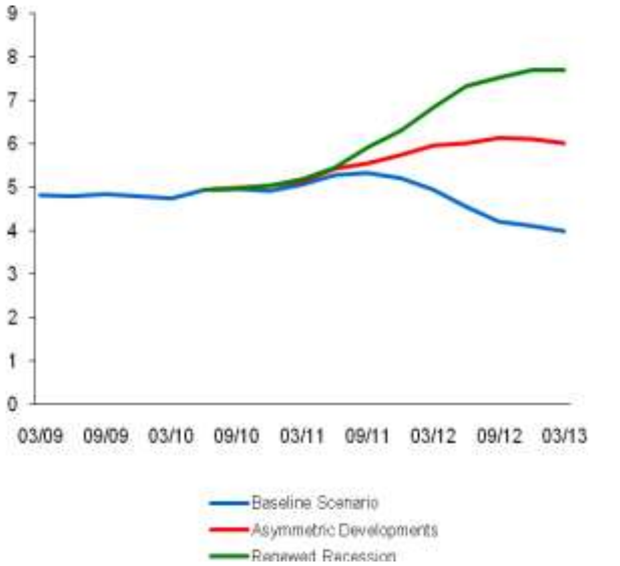
Source: CZSO Household Budget Survey, CNB calculation
Note: The figures for 2010 and 2011 are based on estimates. [4]

We may see that the share of over-indebted families differs greatly depending on individual income quintiles.
Graph 1 shows over-indebted families as a percentage of “families with debts”, i.e. not as a percentage of the entire population of families. More specifically, 20% of Czech families have a consumer loan, with the families usually recruited from the first and second quintile, i.e. from 40% of families with the lowest income. Approximately 13% of families have a mortgage, with these families usually belonging to the fifth quintile. In terms of loan totals, the highest sums have been lent in the form of mortgages (CZK 700 million), with consumer loans provided by banks and non-bank institutions amounting to CZK 300 million.
How are we to interpret these figures in connection with the division of families based on their financial fragility and how can this example, specific to the situation in the Czech Republic, may be applied to other developed countries?
Let us begin by clarification of some facts, such as the claim that assets of families in the developed countries are generally significantly higher than their financial commitments. While the value of family assets would be worth a separate study, for which there is not enough space, we have to stick to the basics. First of all, a substantial amount of these assets is in the form of real estate property whose value has been compromised due to the mortgage crisis and the subsequent collapse of real estate prices across the developed world. Secondly, another important sum of money is represented by pension funds and the pension schemes in general; needless to say, however, that their value is not guaranteed, and, due to the set-up of individual pension schemes, these present just a limited liquidity.
Now let us look at some examples from two countries that are distant both geographically and economically. Between 2008 and 2011, real estate prices in the Czech Republic have plummeted 25 to 30% [5]. Based on the latest available data published by the Czech Statistical Office, the decrease is likely to continue as family spending has been reduced across the board, even affecting food consumption, an area previously immune to change. The willingness of families to invest in housing is expected to remain low and the conditions are not favorable for prices returning to their original level; in fact, current conditions do not even guarantee that they will remain the same.
As far as the reserves in pension funds and life-insurance schemes are concerned, their value is also tricky. For example, net equity of U.S. households in pension funds went down from the original amount of USD 13.4 trillion in 2007 to 10.4 trillion in 2008 and even as late as 2010 had not yet returned to its original level. [3].
This shows that the issue of financial stability of families remains largely underestimated and seemingly unimportant, yet it is more serious than most might think; how pressing it actually is may become apparent over the next few years.

3 Problem Solution

Unlike most other national banks or research organizations, the Czech National Bank (CNB) provides thorough models of financial stability of households in its Financial Stability Reports [4], attempting to predict the household default rate development. Nevertheless if we look back in history, we see that in its 2007 forecast, the bank predicted an increase of 0.5 p.p. over the then-current level of 3% that was expected to take place “if some less favorable scenarios materialize” [7]. In reality the situation was naturally much worse and, as Graph 2 shows, the credit risk (default rate) for households has now surpassed the 5-percent mark and is likely to continue growing.

Graph 2: 12-month default rate on bank loans to households



Source: Czech National Bank (ČNB) [4]

It is natural that predictions do not always turn out the way they are originally expected; but here, just like in any other default forecasts, the difference seems to be due to methodological discrepancies and due to the fact that the models currently applied to predict financial fragility of households do not sufficiently consider some variables. And the fact that between 2007 and 2010 the default rates for Czech households did not change and remained just below 5% makes no difference in this respect.

Applying the Czech experience to the situation in the developed countries within the context of related facts (including information that in the Czech Republic household debts amount to 33.4% of financial assets, while in the Netherlands, Denmark and a number of other states the indicator hovers well above fifty percent), we have to conclude that the risk of mass default of families especially among families in the first and second quintiles becomes increasingly more threatening a social and financial problem. This is also documented by the fact that while in 2007, 37.5% of bank assets in the Czech Republic was lent to people in the form of loans, currently the number is up at 44.3%.

4 Conclusion

The threat of family defaults and excessive family debts, possibly resulting in a crisis of financial stability of households, is a real one. Even if default rates do not develop in a worse way than already predicted by the experts of the Czech National Bank, in 2013 we may expect the household default rate to be at 8%. However, since we consider this estimate affected by various methodological discrepancies, it would be wiser to expect a default rate of approximately 10%, with the segment of consumer loans suffering much more dire consequences than the segment of mortgages. A similar development may be expected also in other developed countries.

We may in no way rule out the possibility that this process will affect the financial health of the banking sector and will usher in another of the financial crisis of the recent years. While until recently households used to be omitted within discussions on financial crises, based on the belief that they were sufficiently stable financially, now we have to duly consider their position to understand their potential for destabilizing the entire financial sector and for causing a third wave of financial turmoil.

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