# Вплив світової кризи 2007-2009 рр. на фінансову систему Республіки Македонія

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Жодні інші явища не є настільки цікавими для дослідження, складними для теорії та значимими для реального життя як фінансові кризи. У статті розглядається процес розгортання першої світової кризи XXI сторіччя. Початково криза виникла в розвинених країнах, розвивалася дивним чином і настільки ж важко підлягала будь-якому контролю, як мутований вірусний штам. Перехідні економіки, які вважали традиційними вогнищами виникнення нової кризи, виявилися моральними переможцями в цій кризовій ситуації.

Відповідаючи приблизно визначенню перехідного ринку, Республіка Македонія була лише однією з довгого списку країн-кандидатів, економіку яких мав зруйнувати фінальний удар кризи.

Отже, перша частина цієї статті присвячена основній теоретичній загадці — здатності малих і слабких економік протистояти удару кризи. У другій частині розглядаються основі ознаки македонської фінансової системи, характер її зосередження на банках і структурна слабкість, яка була притаманна економіці Македонії навіть після її відокремлення від Югославії. Третій розділ намагається відповісти на питання, на яке досі не можуть дати однозначної відповіді македонські економісти.

Чому, незважаючи на всі негаразди, національна економіка спромоглася вистояти, тоді як значно більші та здоровіші економіки не витримали натиску кризи? Очевидно, розмір справді важливий, оскільки він забезпечує більшу гнучкість невеликих країн. Саме це, а також рудиментарна структура фінансової системи і низький рівень інтеграції з економікою країн ЄС фактично забезпечило життєво потрібний рівень ізоляції від зовнішніх фінансових потрясінь. У четвертому розділі статті пропонується стислий огляд поведінки деяких найцікавіших змінних до, під час і після кризи.

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# The Impact of the Global Crisis 2007-2009 on the Financial System of the Republic of Macedonia

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The Global Financial Crisis of 2007-09 threw the world in one of the most severe nosedives for decades. Developed and robust economies tumbled, cascading negative effects in the emerging world. While certain developed economies such as Iceland's crumpled, other, like the Greek, still teeter on the brink of collapse. Yet, the economy of the Republic of Macedonia, as fragile and structurally inept as it seems, still managed to survive the crisis' lethal blow. This paper attempts to examine the causes of this paradox by shortly introducing the specifics of the Macedonian financial system, and later analyzing the behavior of three select variables before, during, and after the crisis.

Keywords - financial crises, emerging markets, banks

#### I. Introduction

The economic health of the Republic of Macedonia relies heavily on the stability and functionality of its entire financial system. Without a well-established and properly-functioning financial infrastructure, optimal resource allocation is impossible to achieve, despite its being the imperative of all market-oriented economies.

This is why, at times of global financial distress, initial expectations suggest that only countries with mature economies, deep stock markets, and large safety nets would exert sufficiently strong financial muscle to survive the impact. The next section will provide a short overview of the main features of the Macedonian financial system.

## II. Main Traits of the Macedonian Economy

Still considered to be a country in transition, the Republic of Macedonia endured a turbulent period following the secession from Yugoslavia two decades ago. Events including the move from centrally-planned to market-oriented economy, privatizing state-owned enterprizes and denationalizing property, currency change, internal conflict, loss of traditional export markets, and permanently high unemployment are but a few of the numerous problems which still plague the newlyformed country.

Thus, the Macedonian financial system operates within a very straightforward frame, a remnant from the Yugoslav era, where the existence of complex financial institutions, deep capital markets and bountiful supply of a variety of financial instruments were all considerably limited. As Fig. 1 points out, during 2009, the financial system of the Republic of Macedonia could be divided into four main segments – Banking, Insurance, Leasing, and Capital Markets.

| Sector          | Total Assets (In million MKD) | Percentage<br>Structure | # of<br>Institutions |
|-----------------|-------------------------------|-------------------------|----------------------|
| Banks           | 271,825                       | 89,7%                   | 28                   |
| Insurance       | 12,202                        | 4,0%                    | 30                   |
| Leasing         | 9,115                         | 3,0%                    | 9                    |
| Capital Markets | 10,031                        | 3,3%                    | 35                   |

Figure 1. Segments of Macedonian financial system

Regulated in accordance with EU legislature, the Macedonian banking system in 2009 consisted of 18 banks and 10 savings houses. Longest-lived and deep-rooted, the banking sector exhibits high concentration levels, continually above 1500 points, according to the Herfindahl index (NBRM, 2010). Universal in its character and rather similar to its counterparts in Central and Eastern Europe, the Macedonian banking system is nonetheless structurally underdeveloped, especially with regards to low asset exposure. Most importantly, the sheer size of the banking sector compared to the other segments of the financial system as seen through the 89.7% percentage share shows its dominant position. The Insurance sector only takes up MKD 12,202,000,000 or mere 4% of total assets, competing for customers with the Insurance sector, which is equally underdeveloped, with only MKD 9,115,000,000 or 3% of total assets, their inferiority only exacerbated by the ubiquitous presence of banking products and services. Finally, the budding Capital Markets segment, although contributing with only 3.3% to total assets of the Macedonian financial system, was abruptly stopped short of expanding as investor confidence plunged and secondary trading dwindled at the wake of the crisis in 2007. These numbers are sufficient to point to the main features of the Macedonian financial system.

First, its bank-centric nature shows the inability of other segments to compete with the deep-rooted tradition among economic agents to first turn to the most conservative sort of financial institutions for their financing needs. This is not necessarily a bad thing, asserts Petkovski (2010, p.14), but should instead be considered a blessing, as the highly liquid banks essentially prevented the national economy from collapsing during the turbulent years of 2007-2009.

Second, the security markets are shallow as they are unable to absorb even smaller shocks in trading without significantly affecting the price and volume of traded securities. Moreover, a large portion of the MKD 10,031,000,000 comes from foreign speculative portfolio investments. This, combined with the notion that domestic agents are poorly informed and easily succumb to waves of euphoria or depression, only adds to the volatility of the markets. Its small share relative to the banking sector was another blessing in disguise at the time of the unraveling of the crisis, as it contained the shocks from spilling over into other segments.

Third, the levels of globalization as well as intersectoral integration of the Macedonian economy, as seen through cross-ownership among various financial segments are relatively limited. As synergies arising from

intersectoral integration are slow to appear, the channels of transmission of the crisis remain insulated.

Fourth, the high levels of export dependence on a limited number of strategic products with low value added, only highlights the structural weaknesses of the domestic financial system. The competitive sector is highly concentrated, and should another swing appear in the commodity prices of some of the strategic, exportoriented products — like steel, for instance — the aftershocks domestically will send ripple effects through the entire economy. Alarmingly, calculations made by Petrevski (2007, p. 78) suggest that there appear persistent deviations between the real and the equilibrium foreign exchange rate; that is, short-term real foreign exchange does not converge to the long-term projections.

# III. How Did Macedonia Manage To Survive, But Others Didn't?

Financial crises are primarily social phenomena. The first shockwave of the 2007-09 financial crisis managed to severely impact the economies of countries such as Iceland, Portugal, Greece, the Baltic states etc., yet its effects in the Macedonian economy seemed rather mild relative to these economies. The question that invariably emerges is the following: how and why did the Republic of Macedonia emerge relatively unscathed from the global financial conundrum, but economies superior to it fell victims to the financial tsunami that enveloped the global markets?

The answer to this dilemma is polycentric and may be treated from various aspects. The size of the country, its economic fundamentals, interdependence and connectedness with the global financial flows are but a few from the myriad of potential factors that point to the probability of a country becoming a crisis target or not.

As far as country size is concerned, the annual research conducted by Lausanne's Institute for Management Development (IMD) suggests that contrary to conventional wisdom, the most competitive economies on global scales are in fact, small countries with flexible, yet resistant socio-economic systems. Even though the Republic of Macedonia is yet to become part of this research project, the results are straightforward. Small is better. Moreover, not only are smaller economies more competitive, but they are also better at absorbing shocks to their systems, as IMD's 2009 stress test shows.

Although not entirely insulated from shocks, the Macedonian economy managed to avoid a direct collision course with the global destabilizing forces mainly due to the simple structure of its financial system, the low lebel of integration within the global financial flows, as well as the relatively high level of liquidity of the banking sector. At the crisis pinnacle, the levels of credit penetration of Macedonian banks were 36% of GDP in 2008.

The spilling over of the global crisis on Macedonian soil mostly becomes evident through the significant foreign portfolio reversals. According to Filipovski (2010, p.131), there exists a relationship between the monthly asset turnover on the Macedonian Stock Exchange and the monthly foreing portfolio investments, which amount to a correlation coefficient of 0.68 for the crisis period.

Traditional parameters, such as the trade deficit, public debt, inflation and unemployment, which strengthen the economy's resistance towards unexpected shocks, point to the fact that although important, economic fundamentals are not the decisive factor contributing towards the destabilization of a national economy. Soft, intangible factors, such as the animal spirits to which Keynes (1936, p.161) has attributed most of the unexplained events in the financial markets, could be a significant provider of disruptive shocks. A number of episodes from Macedonia's recent history, such as denominations, hyperinflations, currency devaluations, Ponzi schemes and the lasting danger of losing one's property rights due to nationalization, may have influenced investor confidence. All these are events firmly engraved in the collective memory of Macedonian economic agents, who, unlike their counterparts from more affluent European countries, have never had what Paul Krugman (2010) dubs the "luxury of complacency". They have perpetually navigated from one crisis to another, never fully convinced in the solidity of the system in which they operate. This perpetual strife has made them apprehensive and skeptical, but above all flexible, a trait which has appeared to provide one more layer of protection during the recent crisis.

#### IV. Select Variable Behavior

The impact of the crisis may be analyzed from various aspects; however, the size limitations of this article only allow for a select few to be discussed. Fig. 2 shows the behavior of credit growth in the private sector, interest rates, as well as inflation expectations, as opposed to actual inflation.

What do these numbers suggest? As can be seen above, the Private Sector Credit Growth variable fluctuates wildly, from 10.07% in Q2 of 2007 to -0.64% in Q1 2009. Similar patterns could be noticed with the behavior of Weighted Interest Rates, which start the sample period at a high of 11.6% and fall as low as 9.2 in Q3 2010 as another sign that Macedonian monetary authorities were using them to combat recession. Most interestingly, the fourth column shows the economic agents' Inflation Expectations variables, which come as close to the animal spirits term as methodologically possible in Macedonia. They, too, move wildly, from a high of 10.3% in Q3 2008 to a low of -0.6% in Q4 2009. Once the knowledge of reduced credit growth became widely available, economic agents incorporated that piece of information and revised their forecasts for the future, by lowering their expectations.

In addition, the correlation coefficient between Private Sector Credit Growth and Inflation Expectations is 0.2079, while Weighted Interest Rates and Inflation Expectations exhibit an inverse relationship captured by the -0.1819 value.

| Quarter | Private Sector<br>Credit Growth | Weighted<br>Interest<br>Rates | Inflation<br>Expectations |
|---------|---------------------------------|-------------------------------|---------------------------|
| Q1 2006 | 8.89                            | 11.6                          | 3.2                       |
| Q2 2006 | 3.24                            | 11.3                          | 3.2                       |
| Q3 2006 | 9.28                            | 11.0                          | 3.8                       |
| Q4 2006 | 7.47                            | 10.7                          | 3.3                       |
| Q1 2007 | 9.03                            | 10.5                          | 1.8                       |
| Q2 2007 | 10.07                           | 10.2                          | 1.6                       |
| Q3 2007 | 7.92                            | 10.0                          | 1.4                       |
| Q4 2007 | 9.82                            | 9.9                           | 1.9                       |
| Q1 2008 | 8.93                            | 9.7                           | 6.4                       |
| Q2 2008 | 7.38                            | 9.7                           | 9.6                       |
| Q3 2008 | 4.65                            | 9.6                           | 10.3                      |
| Q4 2008 | 2.41                            | 9.8                           | 9.0                       |
| Q1 2009 | -0.64                           | 9.9                           | 2.5                       |
| Q2 2009 | -0.06                           | 10.1                          | 0.9                       |
| Q3 2009 | 2.79                            | 10.3                          | -0.2                      |
| Q4 2009 | 1.42                            | 10.3                          | -0.6                      |
| Q1 2010 | 2.51                            | 9.8                           | 0.7                       |
| Q2 2010 | 1.81                            | 9.6                           | 1.0                       |
| Q3 2010 | 1.17                            | 9.2                           | 1.1                       |

Figure 2. Behavior of select variables during and after the crisis (All figures expressed in percentage terms)

Graphically, this can best be seen in Fig. 3, which depicts the variable behavior. Interestingly, while all three variables have their specific pattern of behavior, credit growth tumbles abruptly in mid-2007, followed by a lagged plunge of inflation expectations. The interest rate movement could be described as more sluggish, but it, too, fits with the general state of the economy.

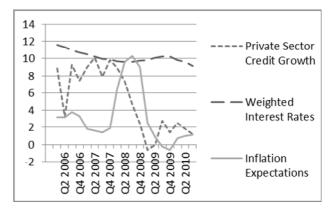


Figure 3. Behavior of select variables during and after the crisis (All figures expressed in percentage terms)

#### Conclusion

Financial crises are ubiquitous phenomena, yet as concepts they are still difficult to grasp and even more challenging to model and prevent. The unfolding of the first global crisis of the 21<sup>st</sup> century is a case in point. Not only did it initially occur in the developed world, but it also behaved strangely and was as elusive to contain as a mutated viral strain. Emerging economies, regularly indicated as the usual suspects for the appearance of yet another crisis, appeared the moral victors of this one.

Loosely fulfilling the definition of an emerging market, the Republic of Macedonia was just one in the long list of candidates waiting to be knocked down by the crisis' final blow.

Hence, the first section of this paper poses the main question attempting to be addressed. The second section introduces the basic features of the Macedonian financial system, its bank-centric nature and structural weaknesses which have been plaguing the economy even before its secession from Yugoslavia.

The third section of the paper tries to tackle the glaring question that still baffles Macedonian economists. How is it possible that despite all its disadvantages, the domestic economy managed to stay afloat while much bigger and healthier economies succumbed to the pressure? Apparently, size does matter as it provides better flexibility for smaller countries. Not only that, but the financial system's rudimentary structure as well as the low level of integration with the EU economies actually provided a much-needed level of insulation from shocks spilling over internally.

The fourth section of the paper offers a skimp overview of the behavior of some of the more interesting variables before, during, and after the crisis. Private sector credit growth is compared against interest rates and inflation expectations, suggesting that they all move to reflect the oncoming of the crisis, the most interesting period being the one right after Q3 2007, where credit

growth abruptly tumbles, followed by a plunge in expectations in the next period.

This evidence suggests that no economy, regardless of its size and simple structure is immune to outside shocks. Yet, there exist rare times – this being one of them - when lack of development could prove advantageous. Little can be lost by those to whom little was given. The next time the country may not be so lucky, as it inevitably marches on the way to social, political and financial convergence with the rest of Europe. The fact remains that the financial system is fragile and a crisis too many could prove to be very costly if efforts to develop the depth of the markets and improve financial infrastructure are not intensified in the near future. The ramifications of the alternative result are too daunting to even consider in their full magnitude.

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