Effect of the macroeconomic policy on the background of the 2007-2009 global crisis and easing of its consequences

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The key task of macroeconomic management is to maintain stable growth, the output free from significant fluctuations and employment. From this standpoint, any crisis somehow indicates how imperfect the pursued policy is. In some instances, e.g. 1998 – Russian default, and 2001 – Argentine default, the background of the crises (in shown cases – formation of double deficit – budget and on current operations account) and policy mistakes, that contributed to their formation (maintanence of fixed exchange rate aided by insufficient tight fiscal policy) are on the surface. In other instances, e.g. the Mexican crisis of 1994-1995 or the Asian crisis of 1997-1998, the influence channels of the pursued policy are less clear.

The study of the crisis allows to shape preventive measures of the macroeconomic policy to avert or, at least, ease the effect of crisis shocks in future. However, practice shows that no country is entirely insured against financial crises. In general, stimulating policy of macroeconomic agencies, oriented at reduction of the depth and duration of the slump contribute to their overcoming. While separate economists have always disputed such a policy, indicating that markets need self remediation. The history of anti-crisis measures extends back over one century and a half and shows how significant they were in dampening consequences of crises.

The 2007 – 2009 global crisis provided huge empiric materials, both from the standpoint of analysis of the effect of the macroeconomic policy on prerequisites of formation of crises, and from the standpoint of evaluating how effective the anti-crisis policy is. The given study in-depth considers pre-crisis policy errors and summarizes anti-crisis measures of governments of leading countries on three key directions (monetary stimulus, support for main financial institutions, fiscal stimulus).

Pre-crisis macroeconomic policy errors. While errors in macroeconomic policy over the past decades were the key contributors to crises in developing countries and emerging markets, developed countries, as it turned out, pursued responsible enough macroeconomic policy. Namely, for the USA none of the periods of growth moderation (from the launch of the Great Moderation of 1983) was associated with mistakes of authorities. However, the crisis unveiled both shortfalls in policy implementation, and limitations in its mechanisms. Researches, dedicated to the causes of the present crisis, are focused on two factors. First, shortcomings in financial regulation, which, as it has turned out, failed to allow for opportunities for systemic risks accumulation. Second, macroeconomic risks of too easy monetary policy of developed countries during the period followed by “bubbles” in the share market of hi-tech companies in 2001. The role of fiscal policy is interpreted as somehow less significant, though for a number of countries it was unreasonably accommodative, which added to pre-crisis overheating.

As for *monetary policy*, a large number of researches [namely, Taylor, 2008; Ahrend et.al., 2008] state that, from 2001 through 2005 base rates in developed countries were much lower than the Taylor rule (for the USA see Figure 1). The Federal Reserve started to reduce exchange rates early in 2001 to avoid recession after collapse of NASDAG. The process in question lingered to support economy amid uncertainties associated with terror attacks of 11 September 2001, and beginning of the war in Iraq in 2003. And the risk of deflation was also considered (given the experience of Japan which in 2001 – 2003 went through deflation and utterly low economic growth rates). European central banks reduced exchange rates as well at that period. As analysis shows [Taylor, 2008], the dynamics of “excess” reduction in exchange rates in Europe conforms to the analogue dynamics in the USA, which may be put down either to the impact of American exchange rates on world exchange rates, or the fear of excess strengthening of EURO.

In 2004-2005 exchange rates started to surge primarily due to inflationary risks. However, it is worth mentioning that, first, even after this surge they still remained low, second, this process failed to lead to corresponding rise in long term exchange rates. Thus, despite a 3 basis points rise in the exchange rate on federal funds of the Federal Reserve System of the USA in 2004 – 2008, the exchange rates on long-term government T-bills for the period in question virtually did not change. It is due to dwelling adaptive components in expectations of financial institutions, as well as due to the fact that they could have considered previous reduction in the interest rate transmission power constant [Ahrend et.al., 2008]. Obviously, flow of capital to the American market due to upward trend in savings in Eastern Asia and oil-extracting countries contributed to the process. To note, from the point of view of inflation – the prima target indicator for central banks of these countries – no negative dynamics over the period was observed.

Monetary expansion, at the same time, yielded a number of threatening consequences:

1) prices for a number of assets (housing first of all) went up. Such a situation is typical in case of durable maintanence of interest rates below the level prescribed by the Taylor rule [Ahrend et.al. 2008].

2) risks accumulated in the financial system through the following mechanisms:

- reduction in return on reliable assets stimulate their replacement with riskier and highly profitable ones. This effect is particularly reflective for investors, who correlate return on investments with available liabilities (particularly, pension funds);

- generally, financial institutions target a certain level of credit leverage – permanent (commercial banks) and pro-cyclic (investment banks). If the value of their assets goes up amid low interest rates, it leads to jump in the value of assets and further expansion of balances of such institutions which results in positive feedback – expansion of balances – increase in demand for new assets. Because potential volumes of low risky lending are limited in general, the share of highly risky assets goes up.

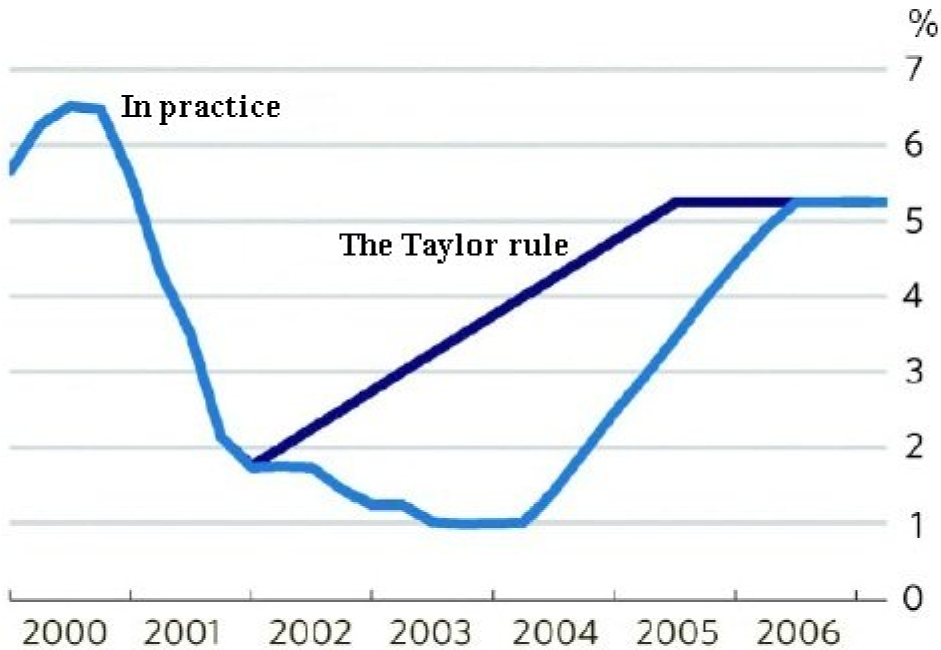

Figure 1. Pre-crisis dynamics of the base rate of the FRS USA (Taylor, 2008)

We may say that *the pre-crisis monetary policy of developed countries did not hinder formation of bubbles in assets market (in particular, housing) and excess growth in lending.*

Speaking on the role of the monetary policy from the point of view of crisis vulnerability in developing countries, we should bear in mind considerably huge variety of this group against the utilized regime. The countries that employed an exchange rate as the key nominal benchmark and that are characterized with open account capital transactions (first of all, these are countries of Eastern Europe, Russia, UAE), had no opportunity to effectively manage interest rates that frequently turned out to be negative in real terms and favored overheating of economy. Lending considerably boosted in these countries in the pre-crisis period, which, as empiric studies [Lane, Milesi-Ferretti, 2010] show, proved to be one of the most significant explanatory factors of the downturn. Increase in lending was much less both in the countries with considerable restrictions in capital flows and in the countries with “alternative” regimes of interest rate policy (China, India, many countries of the Middle East, Argentine, Singapore) and in the countries that target inflation (major countries of Latin America, Czech Republic, Poland). According to the results of some studies [Berkmen et.al, 2009], the regime of inflationary targeting was the vital factor to decrease crisis-related losses of output. In addition to curbing of the growth in lending, it is also associated with the fact that the targeting of inflation provides for a flexible exchange rate, which, to a certain extent, dampens growth of external liabilities of the private sector (one of the key factors of crisis vulnerability) and dollarization of the economy (meanwhile reducing accumulation of the risk of in the financial system). To add, another potential mechanism of regulation of lending in developing countries was changes to reserve requirements along with influencing interest rates (that is accessible for central banks of the last two groups of countries). Indeed, according to researches [Montoro, Moreno, 2011], rise in reserve requirements during the pre-crisis bubbles in such countries as Brazil, Columbia, Peru, proved to be one of the factors to curb lending.

Besides too accommodative monetary policy, deficiencies in *prudential regulation* are admitted to be the paramount factor to contribute to financial vulnerability in the pre-crisis period. Thus, according to most researchers, one of the main reasons for the crisis was weak regulation on the back of growth in integrated financial markets and distribution of financial instruments. In this regard, the 2007 – 2009 crisis reflects the tendency to rise in risks of financial instability accompanied by deregulation and/or distribution of financial innovations (its earlier manifestations include, for instance, the North European crises of the late 1980s – early 1990s and the Aisan crisis of 1997 – 1998). The tendency to weaken regulations started in developed countries (first of all, the largest financial centers – USA and Great Britain) late in the 1970s – early in the 1980s and was logically completed late in the 1990s, when the Glass – Steagall Act, limiting access of commercial banks to capital markets, effective since the Great Depression, was actually annulled. The tendency of the type was associated with expansion of ideas on effectiveness of financial markets: it was considered that in the absence of asymmetry of information and deviations, related with interference regulatory authorities to functioning of a market, prices for financial assets fully reflect the “risk-reward” correlation. Accordingly, the role of the government barely boils down to maintainance of transparency (in particular, based upon the requirements on data disclosure) and equal opportunities for market players (that, in particular, includes counteraction to insider trade). In this case, prevalence of financial innovations was doubtlessly considered a positive phenomenon, which promoted high effectiveness in risk profile.

Deregulation was aided by considerable growth in the size of the financial system. Total value of issued derivative instruments shifted from 300% of the world GDP in 1999 to 1100% in 2007; the value of credit default swaps from 6 trillion in 2004 to 62 trillion in 2007; by 2007 the share of income of financial corporations in total income of the private sector in the USA made 40% against 10% in the 1980s. Largest financial institutions also significantly enhanced, the structure of which became considerably complex. Here are the key risks (realized), associated with shortfalls in regulation.

First, the regulatory system in place did not hinder creation of stimuli to perceive excess risks on a micro level. For instance, development of securitization was accompanied with extreme rise in compensations to financial institutions for launch and servicing of relevant bonds; accordingly, there were stimuli to increase the volume of securitization even in highly risky assets. Besides, the compensation system (bonuses) for management of financial institutions promotes adoption of highly risky strategies due to "asymmetry" in such remunerations; the bonuses of the type are positive and great in "boom" years and do not provide for any compensations for taking too risky decisions in-the-crisis. This, primarily, relates to mutual investment funds (MIFs) and hedge funds, whose income includes not only interest from income generated from portfolio management, but also the interest from total volume of assets under management. The latter also creates additional stimuli for schooling habit and accumulation of bubbles: if investment companies employ a "cautious" strategy in the boom years, it may lead to outflow of assets and consequently, to fall in income. The result was growth in investments of MIFs and other institutional investors (in particular, pension funds) to potentially highly risky assets, such as credit default swaps and secured mortgage assets, that were not banned by regulators. Such a policy became possible, since rating agencies highly rated corresponding assets amid too low number of bankruptcies and ongoing rise in prices for real estate in the pre-crisis period. I'd like to add that regulators as well failed to pay enough attention to potential conflict of interests associated with compensation for rating agencies from financial institutions that issued "structured" assets.

Second, inadequate regulation of the derivatives market amplified the problems of data asymmetry. In particular, it relates to off-stock exchange transactions (80% of pre-crisis derivatives trading) that are made for the assets of complex structure, the ones that leave no space for adequate evaluation of risks. Illiquidity of these assets is an additional problem, "booms" witness considerable demand for them. In most cases trading of derivatives was actually motivated through not only risk hedging, but also speculation.

Third, requirements on banking capital were not tough enough. In the pre-crisis period, potentially illiquid assets (such as credit default swaps) were categorized as "assets with clearly established market value", so corresponding capital requirements proved to be minimum. Moreover, in general capital requirements on balance assets (except loans) were quite low. The banks were obliged to implement the Basel II standards on *evaluation of risk-weighted assets.* Recently, the Financial Stability Board, the

IMF and other financial institutions have been criticizing relevant *Value-at-risk* models. The following factors are indicated as deficient:

- utilization of historical data for a short period of time (1-2 years) to model prices for assets in future. In the event of quite long-term favorable dynamics of financial markets, as in the pre-crisis period, it will lead to underestimation of risks;
- assumption on normal risk profile underestimates probability of serious shocks in financial markets;
- the assumption employed on constant coefficients of correlation between assets prices are not used in practice, particularly during crises.

As a result, self-regulated banks perceived excess risks which weakened the "safeguarding" role of capital requirements.

Boosting off-balance assets and liabilities of the banking system further triggered the problem of capital shortfall – this mainly occurred within structured investment vehicles (SIV), that were formally independent from the banks that had established them, the ones not exposed to capital requirements. The strategy of these companies mainly included issue of promissory notes with further investment of gains to highly profitable derivatives. The crisis limited the capacity to issue promissory notes, and assets became illiquid. The result was that the banks that had established these companies were forced to either make liquidity injections to them, or move their assets to own balances – often with further write-offs. Finally, the factor, that is specific for the USA and that de-facto promoted reduction of capital requirements (and underestimation of the level of credit leverage) for American banks should not be ignored: use of the GAAP standard to report on assets, which, unlike the IFRS – the standard used in Europe, allows for net (not gross) position on derivatives.

Fourth, deregulation promoted growth of large financial institutions which led to elevated systemic risks. The complex structure of such institutions actually leaves no space for market players (in most cases even shareholders of these institutions) to effectively monitor perceived risks. Besides, such growth leads to appearance of institutions, too big and too interconnected to fail (for instance, Lehman Brothers). Failure of such institutions may destabilize the financial system – both through direct interrelations, and high uncertainty. The elevating problem of moral risk is an additional (and related) negative effect, since, in the event of problems, such institutions are likely to be provided with government support – to avoid systemic effects. We may assume that it was the critical factor to contribute to further popularization of highly risky strategies in the pre-crisis period.

As we see, pre-crisis prudential regulation in developed countries failed to prevent accumulation of risks in the financial system. We should highlight that not only private agents, but also regulators underestimated these risks. Defects in stress-testing models also contributed to the problem. The studies show that (Alfaro, Drehmann,

2012) in most cases employed negative scenarios were not pessimistic enough. To some extent it is put down to objective hardships of economic modeling of crises, since the latter is associated with structural changes in utilized correlations. Nevertheless, underestimation of such obvious factors as rise in internal and external interrelations in the financial system – capable to lead to prompt growth in "negative spiral" of prices for assets and "crisis contamination" also played a significant role.

Along with high probability of crises due to deregulation, we should emphasize such a negative aspect of the prudential policy in developed countries as a pro-cyclical impact of the Basel II standard on the financial system. As mentioned above, in "calm" circumstances risk evaluations are low and capital requirements are reduced, on the contrary, during the crisis they considerably accelerate, that stipulate problems connected with the necessity for recapitalization and/or assets sale. As a result, there is likelihood for an additional negative impact on the volume of crediting, which aggravates the recession, triggered by the financial crisis. To that end, the problem of reforms of capital standards and elaboration of effective instruments of macro-prudential policy is currently on the focus of the Financial Stability Board, the Bank for International Settlements and other international organizations along with the issues of regulation of the performance of institutional investors and the structure of compensation for management of financial institutions.

The pre-crisis risks, associated with excess growth in crediting and prices for assets, accumulated not only in developed, but also in developing countries. In this case, we should mention that the countries of the latter group as a whole more actively used the measures of macro-prudential policy to avert growth of financial vulnerability. If out of developed countries only Spain introduced such measures (counter-cyclic requirements on bank reserves to cover suspicious debts, which, according to a number of studies (Saurina, 2009) promoted damping of the influence of the crisis on the banking system of the country), we can exemplify a number of developing countries and emerging markets:

- *Columbia:* counter cyclic requirements on reserves to cover suspicious debts; limits for banks to purchase derivatives. According to the IMF (2010), these measures favored, in particular, slowdown in growth of consumption lending;
- *Croatia.* limits on growth rate of crediting;
- *South Korea.* limits on volumes of foreign currency forward contracts on bank balances and on crediting of residents in a foreign currency; they promoted slowdown in growth rate of crediting and reduction in dollarization;
- *Peru, Uruguay*. Rise in reserve requirements to cover suspicious debts, that led to slowdown in growth of crediting;
- *Vietnam*. Limits on the share of crediting directed at purchase of securities (30% of total lending) and rise in evaluation of risks on such loans; it favored restriction of speculative investments to securities.

I would add that certain developing countries (Peru, Romania) also took measures oriented at restriction of flow of short-term capital, such as differentiated reserve requirements, in the pre-crisis period. As a whole, the factors of crisis vulnerability, like external debt of the private sector, and high pre-crisis lending in the countries, that introduced new pre-crisis prudential measures (as well as the countries with traditional effective regulation, e.g. Chili) stipulated fewer losses of the GDP in the pre-crisis period.

Whereas the key reasons of the 2007 – 2009 crisis were associated with the performance of the private sector, pro-cyclical, expansionist pre-crisis *fiscal policy* became 1) one of the additional factors of overheating, 2) led to scarcity of opportunities of fiscal stimulation of the economy during the crisis for many countries, both developed and developing. The more vivid sample is the experience of Greece and Portugal, whose budgets were implemented with deficit even in the boom period. It may be said that in these instances there was no effective coordination between the national fiscal policy with the accommodative monetary policy of the European Central Bank. As a result, competitiveness went down due to rise in the real exchange rate of the national currency and increase in the size of government debt, which eventually deepened recession (in the latter case – due to impossibility to pursue discretionary stimulating policy). However, certain countries with surplus and even structural surplus in the budget in the pre-crisis period failed to avoid such problems. For instance, in Ireland initially surplus was stipulated by the growth in collection of real estate taxes owing to its rapid appreciation (this effect was not considered when estimating structural balance), so that upon post-crisis price crash the authorities of the country were vis-à-vis with the potential fiscal crisis.

The problem of excess accommodative fiscal policy on the eve of the crisis was indicative for many emerging markets and developing countries, including oil extracting ones. Growth in oil-and-gas revenues was interpreted as everlasting, which resulted in considerable increase in public expenditures even in the percentage of the GDP. According to the IMF, the similar dynamics leads to strengthening of the real exchange rate (promoting deindustrialization of the economy, rise in its dependency on volatile prices for raw materials) and flow of volatile short-term capital, favoring elevated financial sensitivity. Nevertheless, from the standpoint of availability of “fiscal space” to pursue discretionary policy during the crisis, all key emerging markets found themselves in a better situation than developed countries (Padoan, 2010). Consequently, the scale of fiscal stimulus packages in China, Russia, South Korea significantly surpassed (in percentage of the GDP) that of developed countries. Moreover, the scope of necessary fiscal consolidation for developing countries in the post-crisis period, as a rule, is much less than in developed countries, that dampens the risk of downturn in growth, due to negative shocks of public demand.

As a whole, it may be concluded that, the prima shortcomings of the pre-crisis policy were: 1) conditions for excess accumulation of risks in the private sector (or at least lack of active counteraction to the process) and 2) in most cases – pro-cyclicality. Naturally, if to generalize thus, they turn out to be similar with the deficiencies of the policy, which stipulated the Asian crisis and other crises in developing countries, while, as it appears from the above, the challenges faced by macroeconomic powers before the 2007 – 2009 crisis were somehow basically new. Given considerable contribution of these deficiencies to accumulation of systemic risks, review of the key principles of the macroeconomic policy was put forward for discussion. Economists, and representatives of governments and central banks both on the national and international levels are actively discussing related issues.

The anti-crisis policy from 2007 through 2009, approaches, results and evaluations. At the outset of the pronounced phase of the crisis in autumn – winter of 2008 – 2009 there was such a widespread point of view that the world is on the eve of a new Great Depression. Scaled problems in the financial sector, sharp reduction of private demand, high uncertainty during this period, indeed, somehow reminded of its startup. However, in practice, the consequences of the crisis turned out to be much less dramatic and decisions by governments of developed and developing countries on scaled package of anti-crisis measures, including measures of monetary and fiscal stimulus, and measures on support for the financial sector, played the key role to that end. The policy to combat the crisis shocks partially was based upon understanding of the previous experience, however, it was considerably framed upon the outset of destabilization of the world economy. Let us consider the key directions of the anti-crisis measures.

Monetary stimulation. Monetary policy easing and liquidity injection to financial institutions is the traditional instrument to fight financial instability in developed countries, therefore, these measures were first to be used during the crisis. At the initial phase (from August 2007) they included extension of the discount window (the FRS – Auction Facility, the Bank of England, the Bank of Japan) and reduction of interest rates (the FRS). Moreover, the FRS and central banks of other developed countries launched swap lines to ease the situation connected with dollar liquidity. Right up to the startup of the acute phase of the crisis it, to some extent, allowed to normalize the situation in interbank markets, however, in autumn, 2008 additional measures were inevitable amid the deteriorated situation and impossibility to further reduce interest rates. From that moment central banks of developed countries started to realize the program of quantitative and lending easing (e.g. programs of purchase of secured assets of the FRS USA, in particular Asset-Backed Securities Loan Facility), that was accompanied by significant growth of their balances (Figure 2).

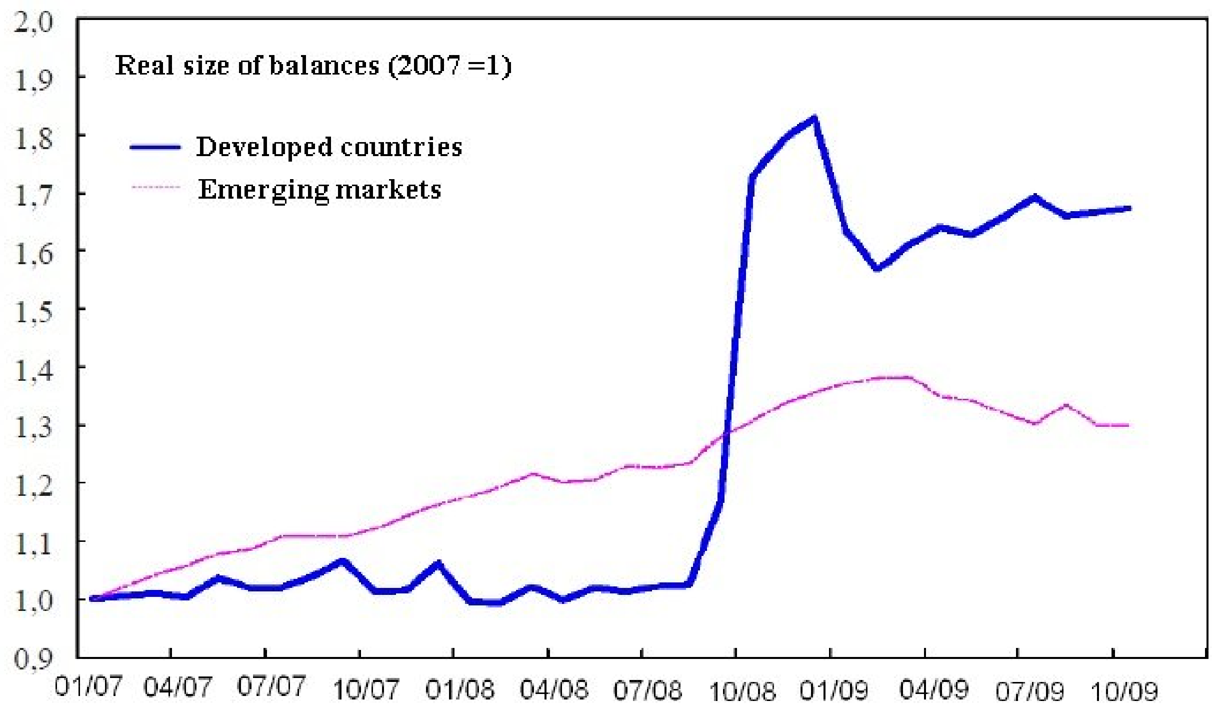

Figure 2. The size of balances of central banks of developed countries
and emerging markets during the crisis (IMF, 2010b).

Most developing countries and emerging markets took measures of monetary stimulus much later – at the outset of the acute phase of the crisis. As in developed countries, the key economies of this group reduced interest rates (in some instances, e.g. in Russia – not instantly, upon dampening of risks in foreign exchange markets), however, they failed to reach “zero level” of interest rates. Along with the higher level of inflationary risks this predetermined much lesser scale of growth in central bank balances (Figure 2). We should also highlight greater importance of liquidity injections compared to developed countries. Most emerging markets used swap lines with the FRS and the ECB (Mexico, South Korea, Poland) or utilized own foreign exchange reserves (Russia) to sell currency both to financial, and non-financial institutions, prolong terms of REPO operations and issue loans; in some instances, also reserve requirements on currency liabilities were reduced.

The question is how effective the monetary stimulus were and against what. In-depth studies of the IMF and the Bank for International Settlements (IMF, 2010c; BIS, 2010) showed that these measures resulted in reduction of spreads in interbank markets, shrinkage of volatility and spreads in foreign exchange markets (Stone et al., 2009), lesser perceiving of certain assets by banks as “problem” in the event central banks accepted such assets within programs of lending weakening. At the same time, empiric researches yield conflicting conclusions from the point of view of reduction of long-term interest rates (Gagnon et al., 2010).

Measures to support vulnerable financial institutions. In spring of 2008 JP Morgan bought Bear Stearns through assistance of the FRS, which may be considered the first significant example for realization of this group of measures. Upon bankruptcy of Lehman Brothers many developed and (lesser) developing countries were obliged to employ diverse methods to support the financial system (recapitalization, government guarantees on assets and liabilities, withdrawal of problem assets from banks balances). Table 1 illustrates the scale of these measures; they were more widespread in developed countries. Given considerable quantity of problem substandard mortgage assets in banks balances and weak regulation in the pre-crisis period it is not surprising. For more detailed summary of relevant instruments for this group of countries see Table 2.

Table 1

Measures on support for the financial sector during the 2008 – 2009 crisis
(% of GDP 2008)*

Countries	Recapitalization		Buy-up/swap of problem assets		Government guarantee	
	allocated	used	allocated	used	allocated	used
Developed	2.5	1.1	5.5	1.3	16.7	4.3
USA	5.2	2.4	2.4	1.3	11.0	2.2
Japan	2.4	0.0	11.4	1.2	7.3	2.4
Germany	3.8	0.0	0.4	0.0	17.0	4.6
Great Britain	3.9	3.3	-	-	54.5	7.0
France	1.4	0.8	-	-	16.4	6.0
Emerging markets	1.1	0.1	0.6	0.2	0.6	0.0
Brazil	-	-	0.8	0.3	-	-
India	0.4	0.0	-	-	-	-
Russia	1.2	0.7	0.5	0.0	-	-

*IMF, 2010d

Table 2

Measures on government support for the financial sector in developed countries*

Country	Recapitalization		Guarantee on liabilities		Guarantee on assets		Purchase of assets	
	program	one-off	program	one-off	program	one-off	program	one-off
Australia			x					
Canada								
France	x	x	x	x				x
Germany	x		x	x	x		x	
Italy	x		x					
Japan	x				x			
Netherlands	x	x	x					x
Spain	x		x					
Switzerland		x	x			x		
Great Britain	x		x				x	
USA	x	x	x		x	x		x

*Panetta et.al (2009)

The measures taken favored dampening of risks of default, break of toughening of lending standards meanwhile being the critical mechanism to curb the liquidity crisis and support loan supply.

Fiscal policy. By the end of 2008 it became obvious that the measures of monetary stimulus and support for financial institutions failed to stop the tendency to reduction of private demand. Under these circumstances (also given expectations on considerable longitude of the crisis, which decreased the problems of implementation lags) all leading economic powers of the world elaborated programs of discretionary fiscal stimulus, oriented at support for aggregate demand, decrease of uncertainty, easing of social consequences of the crisis. 2009 witnessed the vital volume of stimulus with further reduction in support according to recovery of private demand (Table 3). The table shows that the volume of anti-crisis measures varied across countries. As for quality, it should be mentioned that, first, all emerging countries were capable to conduct a counter cyclic policy during the crisis, second, the countries with considerable "fiscal space" (marked by low government debt and/or availability of sovereign funds, e.g, Russia, Saudi Arabia, China) were able to ensure more scaled priming of economy compared to the ones where such a space was actually missing (Italy). As per quantity, the study of determinant of the scale of stimulus packages showed that the significant (positive) factors were pre-crisis lending and in-crisis growth of unemployment (Benetrix, Lane, 2010). Thus, sizes of the anti-crisis package of fiscal measures were determined not only by "supply side" (potential of the government to increase expenditures), but also by "demand side" – objective demand of the economy for stimulation, which depends both on crisis vulnerability, and the weight of crisis consequences.

Table 3

Scale of measures of fiscal stimulus in G20 (% of GDP)

Country	2009	2010	Country	2009	2010
Argentine	1.5	0.0	Japan	2.8	2.2
Australia	2.8	1.8	South Korea	3.6	1.1
Brazil	0.7	0.6	Mexico	1.5	1.0
Canada	1.8	1.7	Russia	4.5	2.8
China	3.1	2.7	Saudi Arabia	3.3	3.5
France	1.0	0.5	SAR	3.0	2.1
Germany	1.5	2.1	Turkey	1.2	0.5
India	0.6	0.4	Great Britain	1.6	0.2
Indonesia	1.1	0.6	USA	1.8	2.9
Italy	0.0	0.1			

*Source: IMF Fiscal Monitor, May 2010

The study shows that the stimulus packages varied not only according to total sizes, but also the structure (Figure 3). We can exemplify several largest anti-crisis fiscal packages: the biggest on absolute volume (USA). The biggest on absolute volume among emerging markets (China) and the biggest on the GDP (Russia).

USA. The American Recovery and Reinvestment Act (ARPA) was adopted in February, 2009, the volume of which constituted USD 827 bln, out of which USD 275 bln were the share of tax incentives, while USD 552 bln – increase in public spending. The declared goals of the ARPA were: 1) to save and create new job places; 2) support most vulnerable stratum of the population; 3) modernize infrastructure and investments to green technologies.

Study of the ARPA provisions shows that roughly one third of the volume of fiscal stimulus was direct financial assistance for the unemployed and the disadvantaged (USD 84 bln spending and USD 204 bln tax incentives). The measures of the type, as usual, differ by the greatest fiscal multiplier due to low tendency to savings by these groups of the population. The two third of the fiscal package was directed at support for education and health. Investments to infrastructure and green technologies constituted about 15%.

China: the program on priming of economy was adopted in November, 2008, the total volume of which made USD 590 bln. The program was distinguished by the prevailing role of public investments (about 85%), which were directed at construction of highways and railroads, irrigation systems, elimination of consequences of earthquake in Sichuan and development of green technologies. Build-up of investment demand was to compensate sharp decline in export demand. A number of measures were taken to stimulate demand, in particular, subsidies to purchase ecological vehicles and a wide range of durable goods.

Russia: the scale of priming of economy made about USD 110 bln. What made it different was that it granted loans to a number of key companies of the real sector, that were facing problems related to refinancing of liabilities in foreign currency (about USD 10 bln). The volume of tax incentives for corporations was significant as well – USD 10

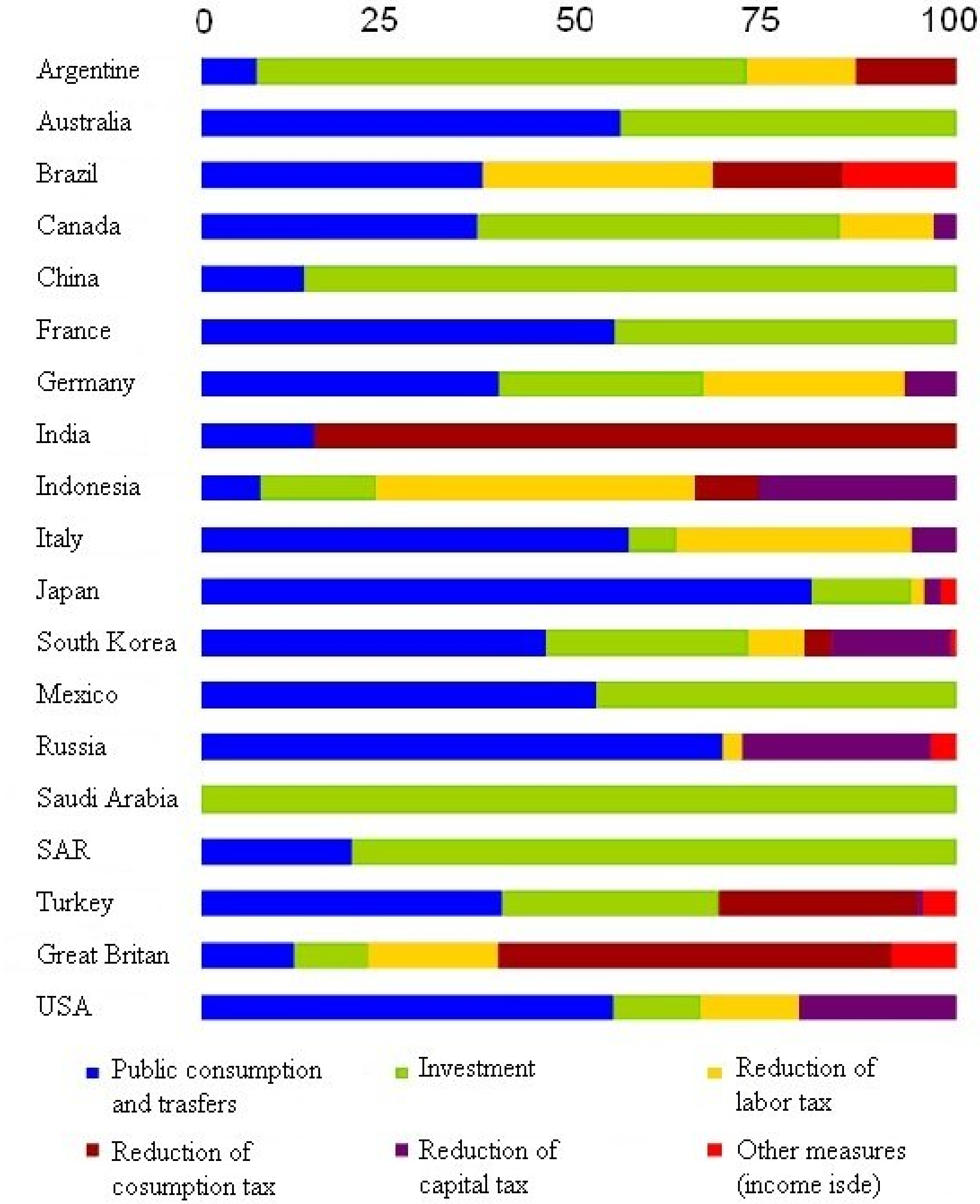

Figure 3. The Structure of anti-crisis measures in the G20 (IMF, 2009)

bln (reduction of income tax and rise of amortization norm). Roughly USD 12 bln were directed at support for automobile industry, defense sector, and development of the transport system. About USD 20 bln went to rise in pensions and other social allowances. In total, we may say that, the measures taken ensured critical support both for large, and small and medium businesses (though most of all – to the first one) and promoted restriction of negative social consequences of the crisis (additionally supported private demand). However, experts and international organizations criticized some aspects of their realization, including non-transparency in selection of companies to be assisted by the government, and permanent nature of certain social measures (e.g. rise of pensions).

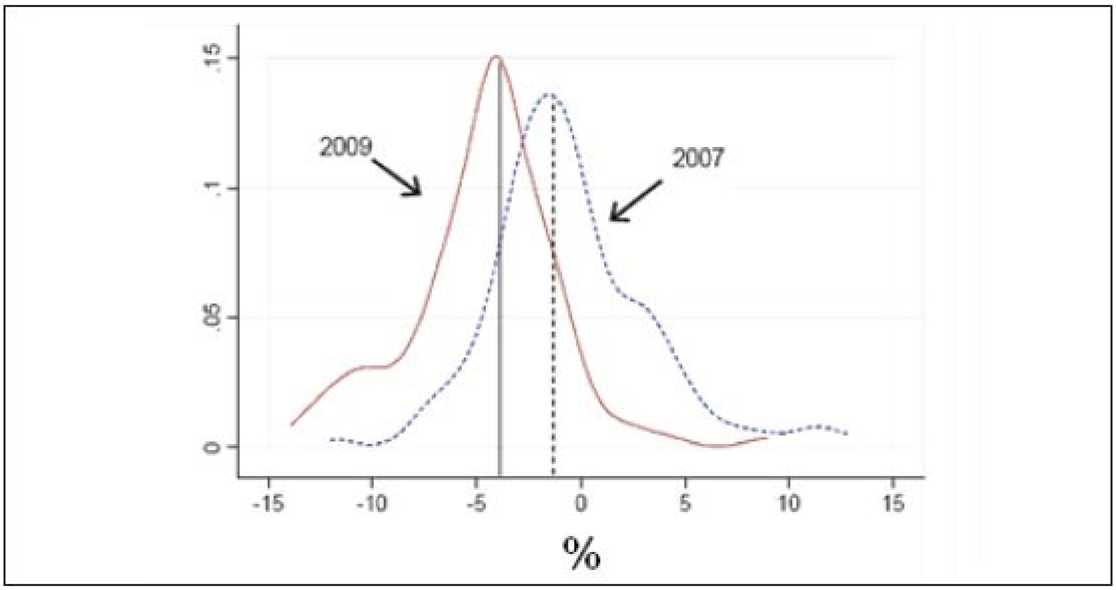

Figure 4. Pre-crisis and in-the-crisis distribution of countries from the point of view of the fiscal balance

The issue of effectiveness of fiscal anti-crisis measures is questionable. On the one hand, such measures promote downturn in magnitude and longitude of recessions (Baldacci, Gupta, 2009), on the other hand, they lead to growth of deficit (Figure 4) and accordingly, the government debt (Figure 5), which in its turn, may stipulate fall in long-term growth. Indeed, whereas for the time being return on T-bills of leading economic powers are relatively on a non-high level (Figure 6), given ongoing deterioration of the situation in the periphery of the euro area, as well as, in Italy and Spain, the risks of financial destabilization and increase in interest rates are quite significant. To that end, the size of a fiscal multiplier is of critical importance: if it is close to zero (or even negative), whether fiscal stimulus is purposeful calls doubt. At present, we can say that spread of relevant estimations, obtained through empiric researches, is too great. Thus, the pre-crisis estimations for the US ranged between

0 (Barro, 2009) - 1.5 (Romer, Romer, 2007) depending as well on the nature of stimulation measures (reduction of taxes, expansion of public investments, rise in social transfers etc). Moreover, studies show that the multiplier may undergo time changes, since it depends on the size of the government debt (due to partial implementation of the of Barro – Ricardo equivalence), the exchange rate regime and openness of the economy (Ilzetzki et al.,2011). Nevertheless, findings of some studies built upon the crisis data show that under such circumstances the multiplier is much bigger than 1 (Bouthevillain, Dufrenot, 2012; Fatas, 2011) at least for developed countries. To most extent it comes from the simultaneous accommodative monetary policy (according to (Freedman et al., 2010) compared to the case of missing monetary stimulus, the multiplier doubles due to lower real interest rates). The results for developing countries are less certain. In particular, according to the IMF estimations, for the Persian Gulf countries the multiplier ranges between 0.3 – 0.5. However, even with such values the government support may render considerable assistance for the economy during crises. In general, according to the IMF, measures of fiscal stimulus ensured 1.4% of the world GDP in 2009 and additional 0.6% in 2010.

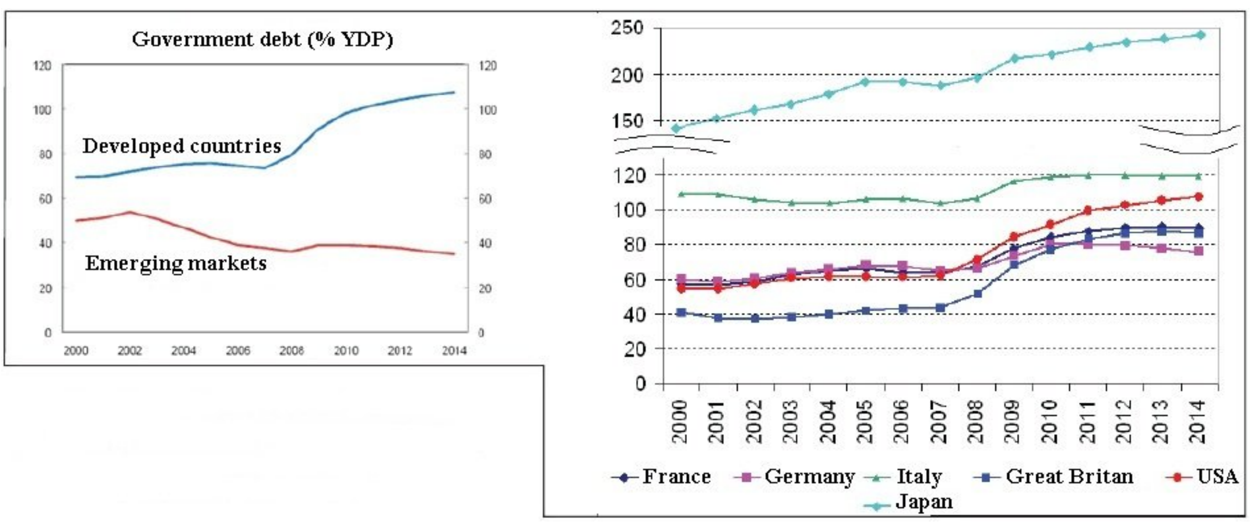

Figure 5 a.b. Dynamics and forecast of the government debt in developed countries and emerging markets (IMF, 2010d)

As a whole, we may conclude that the programs on support for the economy and the financial sector implemented during the crisis reached their goals: scaled collapse of the banking system was averted; downturn in the real sector was limited; sharp decline in the standard of life was prevented. However, consequences of their realization (extension of central bank balances and increase in the government debt) may challenge sustainable growth for certain countries in the medium run. Such challenges may be successfully responded through proper coordination of fiscal and monetary policies, for instance, historical experience displays that fiscal consolidation may have a stimulatory effect with ongoing accommodative monetary policy, which, in particular, stipulates interest of the powerhouses, like the USA and Great Britain in such a strategy.

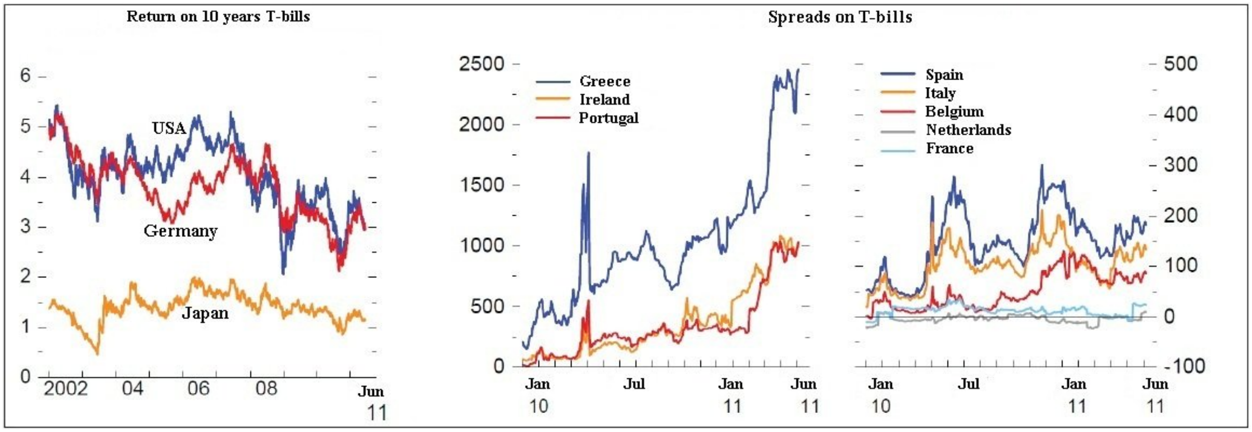

Figure 6 a.b. Dynamics of return and spreads on T-bills (IMF, 2011)

Conclusion. Completing the discussion of pre-crisis mistakes and anti-crisis measures, we may mention that, as other large-scale crises (the Great Depression, stagflation in the 1970s), the 2007 – 2009 crisis resulted in considerable review of the macroeconomic policy doctrine. Thus, understanding of the weaknesses of prudential regulation favored adoption of the Basel III standards on banking supervision, which incorporates a clear counter-cyclic component; international organizations are dealing with reduction of systemic risks through other channels as well. In general, the experience of implementation of active discretionary (including fiscal) stimulatory policy during crises proved to be positive (though for many preceding crisis episodes, e.g. the 1997 – 1998 Asian crisis, on the contrary, policy toughening was the standard “recipe”). Thus, large-scale liquidity injections from 2007 through 2009 helped prevent collapse of the financial system (the Great Depression witnessed the case), while monetary and fiscal stimulus packages significantly supported the world output. As for boost of efficiency of macroeconomic management, the key task for future is to improve anti-crisis mechanisms considering their impact on a short-term dynamics and long term growth.

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