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Faculty of Social Sciences

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Bachelor Thesis

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Current Economics Crisis in the Works of Paul R. Krugman and Joseph E. Stiglitz

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Prohlášení

Prohlašuji, že jsem bakalářskou práci vypracoval samostatně a použil pouze uvedené prameny a literaturu

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Abstract:

This bachelor thesis deals with the thoughts on current economic crisis in works of Paul Krugman and Joseph Stiglitz. It starts with an overview of their current criticisms and comments on the deregulatory policies that took place in the U.S. for almost 20 years and the government stimulus and bailout bills that according to Krugman and Stiglitz do not sufficiently reflect the underlying issues that causes the crisis in the first place. Thesis continues with identification of these issues in works of both economists and links them to their previous works. I argue, that many of these issues have been identified long before the crisis and could be dealt with in time by proper regulatory measures. The last chapter contains several thoughts on issues I believe represent a more general layer of what lead to the current economic crisis.

Abstrakt:

V bakalářské práci se zabývám myšlenkami Josepha E. Stiglitze a Paula Krugmana v souvislosti se současnou ekonomickou krizí. Práce začíná výběrem současných kritik a komentářů obou autorů ke dvěma tématům - ideologii deregulace která byla dominantní hybnou silou ekonomických politik ve Spojených Státech Amerických v posledních 20 letech a způsobu, jakým se vláda s krizí vypořádává a který podle obou ekonomů podceňuje dlouhodobé problémy, které ke krizi vedly. Práce pokračuje popisem těchto problémů a propojuje je s dřívějšími pracemi obou ekonomů. Jedním z cílů práce je ukázat, že tyto problémy byly v pracech Krugmana a Stiglitze z velké části identifikovány již pred krizí a mohly být řešeny včasnými regulatorními zásahy. Poslední kapitola pak obsahuje několik krátkých úvah o tématech, které s krizí a pracemi Krugmana a Stiglitze souvisí na vyšší úrovni obecnosti.

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1 Introduction

Every crisis leaves its legacy. Hopes for the current one will be a setting for new battle of economic ideas following it. Many older mainstream economic ideas are being challenged even by their yesterday's proponents and new discussions between competing economic schools are surfacing. *"We won't and can't go back to the world as it was before"*.[1] I sincerely agree and add: we should not want to. One purpose of this work is to examine some of the underlying systemic faults and risks that have been overlooked or ignored by both politicians and economists for years before the economic crisis of 2008. I will carry out these examinations through a review of works of renowned economists Joseph Stiglitz and Paul Krugman, who have both foreseen if not the crisis in all of its aspects then at least major part of a long chain of failures that led to it directly or severely deepened it. In later chapters I will briefly examine theoretical background of these economists and try to find relations between these backgrounds and their views on issues raised by the economic crisis.

My choice of researched authors might not seem logical at first sight. However, there are some key characteristics incident to both economists that I believe give sufficient basis for examining their respective works in one text. Both Krugman and Stiglitz are in the heart of the current economic discussions. Their articles are being published in the major international media and widely read by broad public as well as by economic policymakers around the world. They also belong among the most cited economists in economic journals[2]. Both consider themselves to be critical admirers of the legacy of John Maynard Keynes, sometimes both are considered to be members on the New Keynesian school of economics - this is true at least in case of Joseph Stiglitz as we will see later. Both are recipients of The John Bates Clark Medal[3] and Sveriges Riksbank

[1] Stiglitz, J. E. (2010). *Frefall: Free Markets and the Sinking of Global Economy.* London: Penguin Books.

[2] There is no universal measure or methodology of measuring citation indexes, not even for EconLit alone. However, Paul Krugman and Joseph Stiglitz usually end up among the top 20 economists using almost any thinkable comparison. For example, in the top 5% most cited economists according to RePEc Paul Krugman was 13th and Joseph Stiglitz 4th most cited economist in April 2010.

[3] A price awarded by the American Economic Association to "that American economist under the age of forty who is adjudged to have made a significant contribution to economic thought and knowledge". Joseph Stiglitz received it in 1979, Paul Krugman in 1991.

Prize in Economic Sciences in Memory of Alfred Nobel[4]. And above all, they share important views on many economic issues, from globalization to current American economic policies and their connection to the current economic crisis.

Whatever the results of the crisis for the economic theory and future economic policies will be, thoughts Joseph Stiglitz and Paul Krugman will have considerable impact on the things to come. This alone is reason enough to inquire into their views on the greatest economic crisis since 1930`s.

Much has been said on account of the current economic crisis. It is not my purpose to rephrase this discussion. This work is not a history of the economic crisis and I suppose the reader is already familiar with some of its widely-discussed aspects like the mortgage market breakdown, the mechanics of financial innovations like collateral debt obligations and credit default swaps and with the efforts of the U.S. establishment to resolve the situation. There will be no discussion about how did the U.S. mortgage bubble burst or an overview of the long list of bankruptcies that happened since 2007. My interests lie in the underlying long-term development of economic ideas and policies that allowed the crisis to occur.

[4] Joseph Stiglitz in 2001 (with George A. Akerlof and A. Michael Spence), Paul Krugman in 2008.

2 Current Criticism

"The only surprise about the economic crisis of 2008 was that it came as surprise to so many"[5]

Not surprisingly, both Joseph Stiglitz and Paul Krugman's main concern of late is global economic crisis[6] that started in 2008. However, current works of both economists include also a wide variety of topics ranging from the U.S. healthcare reform and environmental issues to the problems of Euro zone or work in theoretical economics.

For reasons that will become clear in later chapter, I have decided to start with an overview of two groups of current views of Krugman and Stiglitz – one that includes mainly commentaries on the U.S. government policies of last two years and the other with some critics of the situation on the U.S. financial markets before and during the crisis.

2.1 Greenspanism – a Long Ongoing Deregulation

"Nowadays, the economic establishment seems to offer the same answer to every question: let markets decide (…) the world grapples with the idea, that business cycle has not been repealed, that markets go down as well as up and that sustained development demands more than imported capital".[7]

Named after former chairman of the Federal Reserve Board Alan Greenspan[8], greenspanism is a term used by both Joseph Stiglitz and Paul Krugman to describe a set of ideologies that were the main driving force of policies and steps taken on financial markets in the U.S. in last 20 years.

Alan Greenspan has been together with Larry Summers[9] and Robert Rubin[10] labeled "Committee to Save the World" in their high time. Alan Greenspan himself has long held a statute of

[5] Stiglitz, J. E. (2010). *Frefall: Free Markets and the Sinking of the Global Economy.* London: Penguin Books. p.1

[6] As global as our West-oriented perception of the World goes. However, most countries in Asia, South America or Australia actually experienced real economic growth in all of 2008 and 2009.

[7] Introduction to Joseph Stiglitz series of commentaries "I dissent: Unconventional Economic Wisdom", May 2001

[8] Appointed after Paul Volcker in 1987, replaced in 2006 by Ben Bernake, Alan Greenspan was the second-longest serving chairman of the Board of Governors of the Federal Reserve, William McChesney Martin being the first.

[9] Current director of the National Economic Council for president Barack Obama and 1999-2001 Secretary of the Treasury

[10] U.S. Secretary of the Treasury 1995-1999 in the Clinton Administration.

public hero. The press called him “Maestro”. It has been long believed, that efforts and policies of Greenspan led to the long period of economic stability and unprecedented growth in the U.S. since 1987. During this era many steps were taken towards deregulation of financial markets. According to Krugman and Stiglitz, these deregulatory activities are one of the reasons why the economic crisis began in the first place.

Alan Greenspan was originally appointed by Ronald Reagan – a republican with strong belief in deregulation and free self-correcting markets. According to both Krugman and Stiglitz, Paul Volcker[11] was the one who should have been reappointed in 1987. He was very successful central banker: he managed to bring inflation 11 to under 4 percent and end a long era of stagflation. But Paul Volcker had a “flaw”, at least in the eyes of the that-time Reagan administration. He believed in need for regulation of markets and financial institutions. When Alan Greenspan was appointed, he immediately lowered the interest rates and kept them very low throughout all of his era.

During his time in FED, only two short recessions occurred in the U.S. and the inflation has been low the whole time. Compared to the turbulent era of the 1970 with the break up of Bretton-woods system in 1971, oil shock in 1973 and an energy crisis of 1979, all that combined with high inflation, the time of Alan Greenspan was a time of great prosperity and relative stability. Paul Krugman[12] argues, that this had little to do with the monetary policy of FED. American firms simply utilized new technologies in 1990`s and two subsequent bubbles have kept the growth going in the first half of this decade.

Whether it is true or not, few years after Greenspan was appointed, economical success of the U.S. convinced many economists and policymakers, that the economical science has advanced so far, that the business cycle could be completely prevented. *“From practical point of view, the central economic issue of preventing depression has been solved”.*[13]This is the true meaning of the word “greenspanism” – a widespread belief in the omnipotence of the central bank to deal with any situation and implied redundancy of any regulation of financial markets. *„This is not the way things*

[11] Paul Adolph Volcker was the Chairman of the Federal Reserve 1979-1987. Since February 2009, he has been Chairman of the Economic Recovery Advisory Board under President Barack Obama.
[12] Krugman, P. R. (1998). *The Accidental Theorist and Other Dispatches from the Dismal Science* (1st ed.). W W Norton & Co Inc.
[13] Robert Lucas, annual American Economic Association conference speech, 2003

were supposed to be. Modern economics (...) had promissed prosperity for all".[14] Many American economists and politicians did not believe that a serious economic crisis was even possible. This belief will seems all the more unjustifiable in the light of the fact, that major economic slumps have been periodically appearing all around the world[15].

This confidence in economics and central bank has been one of the reasons for deregulation conducted by both Bill Clinton and George Bush administrations. These measures ranged from loosening of the accounting standards that enabled Wall Street bankers to bedim their operations to probably the biggest change in the U.S. financial system since the World War II. In 1999, one part of the Glass-Steagall Act[16] was repelled[17]. Glass-Steagall Act was originally passed as a reaction on the events of Great Depression. Its purpose was to strengthen future safety and stability of the financial system. To do so, banks have been divided into two groups: investment and commercial. Commercial banks were supposed to manage money of their private creditors and had been subject to extensive regulation as well as a safety net to ensure the trust of clients and to prevent "bank runs" and excessive risk taking by bankers, while investment banks would assist corporations to raise capital, participate in trading of derivatives, equity securities etc.

The Gramm-Leach-Bliley Act allowed one financial institution to act as commercial bank, investment bank and insurance company at the same time. This brought about mainly two problems. First, formerly-commercial banks could get involved in the trading of derivatives and overall higher risk taking. Second, it created excessive large financial institutions with great political power and danger to the entire economy should they go bankrupt. For example Citicorp merged with Travelers Group to create Citigroup right after the Act was signed into law by Bill Clinton. As one of the results, corporate safety net was extended from commercial banks to investment banks also to insurance companies during the Bush era by Treasury Secretary Hank Paulson. But companies like A.I.G never paid any insurance premiums that commercial banks are required to pay for their protection by the government using the money of taxpayers. A.I.G was also subject to much looser regulation than commercial banks allowing it to take higher risks, which it did.[18]

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[14] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books. p.xi
[15] more on the crises of 1990s in chapter 3
[16] Originally passed in 1933.
[17] By passing the Gramm-Leach-Bliley Act
[18] Not that major financial institutions were fully aware of the risks they were taking as I will discuss in chapter 3.

There are three more major systemic risks I would like to point out, that have their roots in greenspanism. First, financial innovations that never became subject to regulation. These include auction-rate securities and lately much discussed derivatives - in 1997 a decision was reached that markets with derivatives including CDOs will not be regulated.Good regulation could have redirected the innovations so that they would increase stability and efficiency of the financial system.[19] Second, no leverage limits were in place for investment banks. And third, missing attempts to limit predatory tactics of hedge funds and private-equity firms.

Another part of greenspanism other than refusing regulation is ignoring bubbles. If a problem arises, there is a belief that it can be easily dealt with. This belief is fuelled by two previous successful actions of FED. In Fall of 1987, stock prices in the U.S. fell more in one day than they did in 1929. The results were not nearly as much devastating and market confidence was quickly restored partially thanks to Greenspans` actions. Few years later, Greenspan actually helped to inflate the equity bubble of 1995-2000 by keeping historically low interest rates. But the dot.com bubble burst in 2000 was also dealt with quite successfully and no major recession occurred. Paul Krugman ascribes this to the housing bubble that already began forming and that he predicted.

Bubbles behave as Ponzi scheme. This is a major way in which they burst. The Ponzi scheme of the U.S. housing bubble of 2008 would have worked only if housing prices were steadily rising. This assumption ignores basic rule of demand and supply: when certain number of households default on their mortgages and the CDO owner gets their houses instead of monthly payments and puts them up to the market, housing prices will obviously go down at some point (especially if the risk of default is vastly increased by financing subprime mortgages). That is the point when the scheme stops working. According to Paul Krugman, Alan Greenspan and others were bound to see it coming.

Paul Krugman saw the housing bubble and criticized Alan Greenspan for not acknowledging its existence. *"There are signs that the housing market either has peaked or soon will. And it will be up to Mr. Greenspan`s successor to manage the bubble's aftermath."*[20] Nobody could have predicted

[19] Stiglitz, J. E. (2009). Regulation and Failure. In D. Moss, & J. Cisternino (Eds.), *New Perspectives on Regulation.* Cambridge: The Tobin Project.
[20] Krugman, P. R. (2005, 08 29). Greenspan and the Bubble. *NYTimes.com* .

when the burst will come[21] but the bubble itself could have been at least partially identified.[22]

The housing bubble burst could have been dealt with, had it not exploited many systemic risks that have been in place thanks to the deregulation ideology. Consequent misaligned incentives, asymmetric risks and moral hazard created a dangerous combination.

2.2 Stimulus and Bailouts

"In economics you have to run to stay still"[23]

There is an agreement between both economists: the recent chain of bailouts and the 800-billion government stimulus of the Obama administration was step in the right direction but it could have been done in a much better way.

When the crisis started the that-time George Bush Administration first refused to even accept the seriousness of the situation. The inability of that-time U.S. administration to asses the situation is probably best described by the President's explanation of the situation: *"The economy is down because we have built too many houses"*[24].Consequently, the Bush administration did not carry through any measures to offset the crisis other that bank bailout.

This is one of the reasons for the first point of critics of the stimulus by both economists: It came too late.[25]The $787 billion American Recovery and Reinvestment Act passed in February 2009[26], two years after the peak of the bubble on the U.S. housing market that preceded the crisis. Partially due to the fact that the rescue efforts came too late, they have been excessively costly, or so Krugman and Stiglitz say. There is a seeming paradox to be found in this: although Joseph Stiglitz and Paul Krugman consider the rescue efforts too costly for the taxpayers, they do not consider them

[21] I ascribe this partially to the fact that many phenomena in real economy act in a self-fulfilling way, bubble bursts being one of them. It is virtually impossible to predict when the bubble inflation reaches a state when it turns the mood on the market and the Ponzi scheme stops working and a quick downslide occurs. All the more reason for economists to be concerned primarily with market incentives, not predictions. More on this in chapter 3 and 4.

[22] Interestingly enough, predicting a burst of a bubble is an instance of belief in self-correcting markets, which is quite unusual for both Paul Krugman and Joseph Stiglitz. For them, markets are thus self-correcting in some very constrained sense.

[23] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books. p.63.

[24] George Bush, *Today show,* February 18, 2008, NBC

[25] Krugman, P. R. (2009, 03 09). Behind the Curve. *The New York Times* , p. A23.

[26] George Bush administration also passed Economic Stimulus Act in 2008 and the $700 billion bailout Emergency Economic Stabilization Act.

nearly robust enough to help the economy and the people of the U.S.[27] They believe that the taxpayers` money could have been invested far better – by increasing the size of the 2009 stimulus, changing its structure and executing the 2008 bailouts in a different way.

According to Joseph Stiglitz, the stimulus should be helping families keeping their houses[28]. *"One way we can make housing more affordable is to convert the mortgage tax deduction into cashable tax credit. (...) Another way is to make some of the low cost capital that we have been giving so generously to our big banks available to lower and middle-income homeowners."*[29] The stimulus money should be spent on investment into productivity and investments with higher rate of return for the economy, the society and the budget and cannot be mainly aimed at consumption increase. *"Three things can make a difference: a second stimulus, stemming the tide of housing foreclosures by addressing the roughly 25% of mortgages that are worth more than the value the house, and reshaping our financial system to rein in the banks."*[30] In line with this logic, part of the actual 2009 stimulus aimed at domestic spending in education and investment in infrastructure and energy sector should have been amplified while the federal tax cuts or investment into ineffective healthcare system should have been abandoned. Nevertheless, the main purpose of the February stimulus was to increase spending, which it failed to do. Partially because Americans with high private indebtedness are more likely to use the stimulus money to cut back of their debt.[31] Another suggestion is that households know that they will have to pay for the stimulus in higher taxes and thus decide to save more and the whole effect is offset.

Both Krugman and Stiglitz even suggest that a second stimulus might be needed. One that would be more concerned with restarting long-term economic growth based on productivity and would eventually lead to more balanced budget in the future. However, they acknowledge that it is not very probable that it could be passed in the near future, mostly for political reasons. Almost any

[27] This is true, the banks did not resume lending after the financial injections, people were still loosing their houses and the unemployment rate in the U.S. has been steadily rising until spring 2010 and the forecasts expect it to resume rising.
[28] After the housing bubble did burst and housing prices started to fall, an interesting situation occurred. Many Americans found themselves having a mortgage that was worth more than their house. Unsurprisingly, they began defaulting on the mortgage, loosing their house in the process and further aggravating the situation. Joseph Stiglitz suggested that government should pay the difference between the mortgage debt and the value of the house thus creating incentives for the debtors to keep their houses and resume paying the mortgage.
[29] Stiglitz, J. E. (2009). The Current Economic Crisis and Lessons for Economic Theory. *Eastern Economic Journal , 35*, 281-296.
[30] Stiglitz, J. E. (2010, 02 05). Muddling out of Freefall. *Project Syndicate* .
[31] But when Bush administration instituted its tax-cuts, which are also a part of the Obama administration stimulus, the savings rate in USA actually fell.

proposal that interferes with free self-correcting market ideology faces a strong opposition in the U.S. mostly from the right side politicians. Arguments of such opponents will be much strengthened by a supposed failure of the first stimulus and by increasing concerns about the U.S. debt to GDP ratio and increasing budget deficits, thus a new stimulus will not have a high chance of passing through Congress[32].

Concerns about the U.S. budget deficits are also lately one of the major topics of Joseph Stiglitzs` writings.[33]He is warning that listening to deficit-hawks might bring about return of recession and long-term economic stagnation of the U.S.While these are nowadays stronger among the conservatives, Krugman and Stiglitz agree that substantial part of U.S. budget problems are fault of the previous Republican administration that instituted tax cuts for the wealthy, thus lowering the budget incomes and increasing social inequality.[34] Krugman also dismisses the debt-increasing concerns about a future quick rise of inflation.[35]Contrary to Krugman, I believe that threat of inflation should be at least a concern and a matter for discussion among economists and policymakers given increasing indebtedness, steadily increasing monetary aggregates or political pressures on China to stop controlling its undervalued currency.

A Bailout Debacle

Refusal to bailout Lehman Brothers in 2008 lead to longest chain of bailouts in the history at tremendous costs to taxpayers. According to Joseph Stiglitz, these bailouts also substantially eroded the institute of bankruptcy in the U.S. The government did not ask for nearly enough stakes in the rescued financial institutions and did not try restructure them. Bottom line is, that the bailouts ended up as giving out taxpayers money for purchasing the failing assets of financial institutions while asking for very little in return[36], especially while allowing the Wall Street to resume its practices.

Bankers argue they did nothing wrong mainly stating that they only did what everyone else

[32] Where the Republicans have majority at the moment.
[33] See Stiglitz, J. E. (2009, 09 07). GDP Fetishism. *Project Syndicate* . and Stiglitz, J. E. (2010, 03 05). The Dangers of Deficit Reduction. *Project Syndicate* .
[34] See Krugman, P. R. (2003, 03 21). Who Lost the U.S. Budget? *NYTimes.com* .
[35] With an argument, that aggregate U.S. indebtedness is rising slower than before the crisis given that private borrowing has fallen substantially.
[36] Opponents of these opinions argue that the main purpose of the bailout was to reinstitute the shattered trust on the financial markets and quickly resume lending. However, this argument is questionable, because it was excessive lending and overall excess of credit that did at least partially cause the whole situation in the first place.

was doing. This suggests that the problems were not caused by failures of individual bankers and that they are of systemic origin. The bailouts then too quickly allowed the banks to move again to profits and take risky positions as a result of moral hazard included in the bailouts and historically low interest rates from Federal Reserve. This further increases the current profits of banks – reduced competition in banking[37] together with general market situation allows banks to lend at a high rate while borrowing at low rate. Banks currently have a large risk premium added and no competition forces them to lower it.

Joseph Stiglitz and Paul Krugman believe that the American financial system did not work very well even *long before* the economic crisis. That it failed to fulfill its social function as well as protecting the shareholders and bondholders. It worked well for few top-level bankers but not for an average American.[38]The financial system thus needs a substantial reform. One that the Obama administration will try to carry through during its electoral period and one the wide public has been calling for during last two years. In later chapter, I will show that Joseph Stiglitz and Paul Krugman have been calling for such reforms on a much larger scale long before the crisis. They believe the emerging financial system will end up even less competitive and bearing the same risks for the wide public unless much deeper reforms are instituted.

However, probability of quick and substantial reforms is quite low given that they would have to be very painful for the bankers and given the political influence of the largest financial institutions. Barack Obama even stated that his reforms would be in the bankers` best interest.[39]Moreover, political will to act in these matters substantially decreased with the first signs of economic recovery. Some of the reforms are already simply being considered as unnecessary. Both Krugman and Stiglitz give warning about misleading interpretation of these so-called "green shoots"[40] and abandoning the reforms and the further stimulus efforts.[41]There is also historical evidence that misinterpreting green shoots and the consequent can push the economy in a situation of a liquidity trap back into recession – attempts to balance the federal budget in 1937 and similar set of policies introduced in Japan in 1996 and 1997.Green shoots can give the representatives of

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[37] Over a hundred smaller U.S. banks went bankrupt in 2009.
[38] The social inequality has been steadily rising in the USA since the beginning of 1980`s.
[39] See Krugman, P. R. (2010, 04 22). Dont`t Cry for Wall Street. *NYTimes.com* .
[40] First used by Norman Lamont during the 1991 recession in the United Kingdom. Green shoots are (false) signs of economic recovery during an economic downturn.
[41] See Krugman, P. R. (2009, 06 15). Stay the Course. *The New York Times* , p. A21.

Wall Street institutions[42] much needed arguments to repel the current regulatory efforts.

Joseph Stiglitz states that *"Today only the deluded would argue that markets are self-correcting or that we can rely on the self-interested behavior of market participants to guarantee that everything works honestly and properly."*[43] This is probably an overstatement. The fact is, that thanks to economic crisis the neoclassical-based ideas of smallest possible regulation and beliefs in market efficiency are being hit from many sides. Hopefully, these criticisms will be strong enough to bring about regulatory policies that would prevent more private benefits - public costs situations on the financial markets and prevent history from repeating itself.

[42] And, of course, also to many politicians opposing the reforms, mainly from the Republican side.
[43] Stilgitz, J. E. (2009, July). Wall Street`s Toxic Message. *Vanity Fair* .

3 Underlying Issues

"I do not believe that any turns happen themselves. What we call economic crisis is another name for lack of morals. Lack of morals is the cause, economic slump a consequence. In our country there are many people who think that recession can be deflected by money. I am horrified by the consequences of this error. In the current situation, we do not need any ingenious schemes. We need moral attitudes towards people, work and public goods. Do not support wash-outs, do not incur debts, do not throw away values for nothing, do not gouge on working men."[44]

"Attention is often shifted away from the battle of ideas toward the role of individuals: the villains that created the crisis and the heroes that saved us"[45]

The problems that occurred in were not once-in-a-lifetime events, or consequences of Lehman Brothers going Bankrupt, not even consequence of the housing bubble in the U.S. These are just wild-card causes of the crisis. The true causes are long-run systemic risk that economists and politicians allowed to exist for a long time until the crisis kicked in and revealed these man-made provocations of probability. Before further inquiry into these systemic risks I will go over a very short theoretical background of Joseph Stiglitz and Paul Krugman.

3.1 Joseph Stiglitz

"The theories that I (and others) helped develop explained why unfettered markets often not only do not lead to social justice, but do not even produce efficient outcomes. Interestingly, there has been no intellectual challenge to the refutation of Adam Smith's invisible hand: individuals and firms, in the pursuit of their self-interest, are not necessarily, or in general, led as if by an invisible hand: to economic efficiency".[46]

Joseph Stiglitz is an Institutional and new Keynesian economist. He is probably best know for his development of the theory of information, which provides microeconomic justifications for Keynesian macroeconomics, the *sine qua non* of new Keynesian economics. While new Keynesian

[44] Tomáš Baťa, 1932, author`s translation
[45] Stiglitz, J. E. (2010). *Frefall: Free Markets and the Sinking of the Global Economy.* London: Penguin Books. p. xvii
[46] Joseph Stiglitz, Aula Magna

economics keeps some of the usual assumptions of the neoclassical theory, for example a kind of rationality of expectations, it refuses others, mainly markets working perfectly. The neoclassical theory holds, that markets work perfectly except some well-defined failures. The adverse is true for markets in new Keynesian models. However, new Keynesian school is very heterogeneous[47]and differs in its approaches and explanations.

Stiglitz has been one of the hardest critics of the current model of globalization as well as international financial institutions like the International Monetary Fund and the World Bank and their policies based on the Washington Consensus.[48]As an Institutionalist, Joseph Stiglitz criticized mainly the Washington consensus and its foremost proponent, John Williamson,[49] main dispute being over the economic transformation process. Stiglitz sees the importance of institutions as a key issue in transformation that cannot be overshadowed by the fastest possible run to deregulation. Economic shifts disrupt old social institutional fabrics while creating new challenges. Without development of new social fabrics, a society will not be able to cope with these challenges. The Washington Consensus based policies fail to reflect this.

The center point of the work of Joseph Stiglitz is the theory of asymmetric information[50]. It holds, that markets are largely driven by informational structure. The theory of information does not fit into the neoclassical transaction costs models. *"Modern information economics turned these presumptions on their head: even small information costs can have large consequences, and many of the standard results – including the welfare theorems – do not hold even when there are small imperfections of information."*[51] Information behaves differently than standard economic commodities as roles of reputation etc. come into account. Markets do not work perfectly mainly because of information asymmetry, so there is an ample space for government interventions. According to Stiglitz, the U.S. government has not been fulfilling its role very well under the influence of right-side reagonomics admirers. *"Economics had moved – more than economists*

[47] For historical over overview see Mankiw, N. G., & Romer, D. (Eds.). (1991). *New Keynesian Economics, Vol 1&2.* MIT press.

[48] A set of policies originally devised for South America. Later the phrase became a term used when talking about neoliberal ideology.

[49] Williamson, J. (1989). What Whashington Menas by Policy Reform. In J. Williamson (Ed.), *Latin American Readjustment: How Much Has Happened.* Washington: Institute for International Economics.

[50] He has been awarded the Nobel Memorial Prize "for laying out foundations of the theory of markets with asymmetric information", mainly for his works on screening.

[51] Stiglitz, J. E. (2000). The Contributions of the Economics of Information to Twentieth Century Economics. *The Quarterly Journal of Economics.* , *115*, 1441-1478.

would like to think – from being a scientific discipline into becoming free market capitalists biggest cheerleader.”[52]

Joseph Stiglitz has always emphasized an important role of the state in the economy. He has criticized the laissez-faire policies that took place in the U.S. in last 20 years saying, that it is often the poorest who pays for these policies. The U.S. model of deregulation and free market do not lead to welfare state, but to great social inequality with tremendously rich people on one side and increasing the numbers of poor people on the other. The neoclassical assessment that everyone is paid according to his marginal contributions to the state does not hold according to Stiglitz. He argues that market failures lead to constant worsening of the position of workers unless prevented by government policies[53]and that involuntary unemployment is not simply caused by minimal-wage policies as the neoclassical theory suggests, but that even in the absence of minimal wage, involuntary unemployment occurs thanks to the informational structure of the labor market.[54]

The efficient market hypothesis holds that stock market prices reflect all information. Stiglitz[55] argues, that should this be true, there would be no reason for anyone to spend money for obtaining additional information. To put it simply*"whenever markets are incomplete and/or information is imperfect (which are true in virtually all economies), even competitive market allocation is not constrained Pareto efficient"*[56]Economic theory in last decade has shown many conditions, which have to be satisfied for the efficient markets to work to at least some extent. However, these advances in economics have been largely ignored by the policymakers. This is partly due to the fact that agents of the financial sector are much closer to the policymakers than academic economists. This is true especially in the U.S. The prescriptions created there were then transferred to other parts of the world with a promise of America-style capitalism and long periods of growth. Now it is apparent that this growth was from a large part driven by debt, technological changes and bubbles. Moreover, the market imperfections have led to creation of systemic risks in the U.S. financial system that were exploited in fall 2008 causing damage to economies all over the world. *“Once again, we have seen a dramatic illustration of the failure of Smiths` invisible hand. The*

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[52] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books. p.238
[53] Stiglitz, J. E. (2002). Employment, social justice and socieatal well-being. *International Labour Review , 141*.
[54] The Shapiro-Stiglitz model. Shapiro, C., & Stiglitz, J. E. (1984). Equilibrium Unemployment as a Worker Discipline Device. *The American Economic Review , 74*, 433-444.
[55] Stiglitz, J. E. (December 8, 2001). *Information and the Change in the Pradigm in Economics.* Nobel Prize Lecture.
[56] Greenwald, B. C., & Stiglitz, J. E. (1986). Externalities with Economies with Imperfect Information and Incomplete markets. *Quarterly Journal of Economics , 101*, 229-264.

pursuit of self-interest, profit, old-fashioned greed, did not lead to societal well-being."[57]

3.2 Paul Krugman

Paul Krugman is a very interesting economist. His writings embody remarkable clarity of thoughts and thoughtfulness. As a student of economics, I have rarely read or heard better (although very frivolous) explanation of the role of monetary policy, central bank, business cycle and Japan liquidity trap on just a few pages[58] using a didactically wonderful article of Joan and Richard Sweeney from 1977.[59] I have been using the Capitol Hill example in my talks ever since.However, main academic interests of Paul Krugman are not too closely connected to the issues discussed in this thesis, so the overview will be very short.

He is best known for his contributions to (or founding of) New Trade Theory and New Economic Geography. In 1979, Krugman published his first article on this topic, explaining why there is trade even between countries with similar economical characteristics. The Ricardo's theory of comparative advantage in inapplicable in such cases. Trade, he argues, is largely shaped by economies of scale as well as consumers preference of wide variety of branches. This explains, why the same kind of goods can be traded among countries while the production of each branch is usually based only in one area. Krugman himself considers a step from New Trade Theory to New Economic Geography an easy and obvious one[60]. However, the paper where he took that step[61] became his most cited work. New Economic Geography explains agglomeration as a result of trade costs and increasing returns from scale.

His thoughts and remarks on the current economic crisis are based mainly in three lines of his work - international finance and currency crises, his writings on the liquidity trap and his long

[57] Stiglitz, J. E. (2009). Moving beyond Market Fundamentalism to a More Balanced Economy. *Annals of Public and Cooperative Economics , 80:3*, 345-360.
[58] See Krugman, P. R. (1998, 08 14). Baby-Sitting the Economy. *Slate Magazine* . and Krugman, P. R. (1998). *The Accidental Theorist and Other Dispatches from the Dismal Science* (1st ed.). W W Norton & Co Inc.
[59] Sweeney, R., & Sweeney, J. (1977). Monetary Theory and the Great Capitol Hill Baby-Sitting Co-op Crisis. *Journal of Money, Credit, and Banking , 9* (1), 86-89. Krugman, P. R. (2009, 09 23). The Freshwater Backlash (Boring). *NYTimes.com*
[60] Paul Krugman, Interview with 2008 Nobel Laureates, 6th December 2008, Stockohlm
[61] Krugman, P. R. (1991). Increasing Returns and Economic Geography. *Journal of Political Economy , 99*, 483-489.

experience as U.S. economic policies commentator.[62] Paul Krugman has very carefully studied the crises in Mexico and East Asia, and argued that Japan was facing liquidity trap during major part of 1990`s. As we will see later, he sees a direct connections between these crises and the current economic distress.

Paul Krugman and Joseph Stiglitz share many important common stances, for instance both are saltwaters economists with strong adherence for thoughts of John Maynard Keynes in their original versions. Both criticize international financial institutions for their involvement in East Asia in 1997. But most of all, both strongly criticize laissez-faire policies based on perfect markets assumptions.[63]

3.3 Previous Works on Crises

Could the crisis have been foreseen, predicted[64], and avoided? I believe answers to these questions are yes, no and yes. I do not believe that it could have been predicted: for instance, nobody can know when a bubble is going to burst, it simply depends on too many factors and happens too quickly once the fine border is reached and Ponzi scheme stops working. However, I believe that many negative aspects of the crisis could have been foreseen and avoided. This could have been done through means of either theoretical knowledge or historical experience. Both are, of course, interdependent.

Paul Krugman and Joseph Stiglitz have studied crises from different points of view for years before the current one occurred. We call the current situation the biggest economic crisis since the Great Depression, but there were economic crises periodically appearing all around the world in the second half of 20th century. Contrary to the belief that the business cycle has been tamed, over a hundred economic crises[65] all around the world since 1970have been accounted for, most of them in developing countries. Many of these crises bear important resemblances to the current crisis.

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[62] He is a twice-weekly Op-Ed columnist for The New York Times and has been repeatedly labeled as one of the most important and influential political commentator in the U.S.
[63] Krugman, P. R. (6. 09 2009). How Did Economists Get It So Wrong? *The New York Times* , p. MM36.
[64] In this sentence, I use the terms in following ways for lack of better words: foresee to - indentify underlying problems before they are exploited, and predict - to know things that will happen before they actually do.
[65] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books.

Mexico in 1995

Paul Krugman and Joseph Stiglitz both studied the Tequila crisis in Mexico, 1995. In 1993 there was an investment euphoria in these countries. Both Mexico and Argentina stabilized their currencies and inflation, thus increasing confidence of the investors. Mexico was running huge trade deficits. Its exports were stagnating while imports were steadily rising thanks to cancellation of trade barriers. In 1993 trade deficit was 8 percent of GDP. Also, Mexico was not growing 1990-1994 in terms of real GDP. Mexico grew 2.4 percent annually, which was mainly because of the demographic development. There were no real results of reforms and foreign investment. Mexico, according to Krugman, needed devaluation to bolster its exports. However, the officials did not intend to take such a step that could undermine the trust of investors. In September 1994 Mexico started to run low on currency reserves. Raising interest rates was not an option – Mexican officials wanted to keep up the economic growth (although there wasn’t one). The other option was devaluation of dollar value of peso.

The devaluation that occurred was not a success, to say the least. Instead of fast one-time devaluation that could have preserved the trust of investors, there were signs the devaluation will continue.[66] Investors began to quickly withdraw their investments and the economy went into recession. This had major impact on the whole of Latin America – notably Argentina.

Mexico and Argentina are on opposite sides of the Latin American continent. But investors in New York see them as all the same. This is even more peculiar knowing that Argentina had a currency board by that time, which would have prevented a devaluation of the currency. The Argentina downfall in 2001 was, according to Paul Krugman, direct effect of the problems Argentina ran into in the year 1995 as a fallout of the Mexican crisis.[67] Joseph Stiglitz provides picture of even more geographically interconnected economies with contagion as a real issue: “*When Argentina suddenly faced high interest rates in 1998, it wasn’t because of what Argentina did but because of what happened in Russia. Argentina cannot be blamed for Russia’s crisis.”*[68]

[66] Mexico tried to outweigh this by converting part of the debt from peso into tesobonos, which were pegged directly to USD. This should have demonstrated Mexico`s commitment not to devalvate any further. When peso was devalvated, the peso value of the debt in tesobonos was much increased further aggravating Mexico`s problems.
[67] According to Joseph Stiglitz, this had more to do with the fact, that major part of Argentinas` growth was debt-financed and driven by unsustainable consumption. See Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books.
[68] Stiglitz, J. S. (2002). Globalism`s Discontents. *The American Prospect , 13* (1).

East Asian Crises of 1997

Since 1990 there was an investment “fever” in the East Asia both from private investors and international institutions[69]. This caused a large expansion of lines of credit in Thailand and other East Asian countries. Large parts of these new investments were used to inflate a new housing and equity securities bubble. The authorities did not appreciate Baht as many economists argue they should have done and thus the inflow of capital went on unregulated. In 1994 China devaluated its currency and the exports of Thailand shrank creating a huge trade deficit. A situation that bore similarity to Mexico few years earlier. The Mexico experience should have told the world investors that international flows of capital are not the reasoned by real valuation of investments in the particular country.[70]

History repeated itself. The equity and housing bubble did burst and the trust of investors shrank. Lower inflow of foreign capital did cause lower demand for Baht. Central bank tried to maintain the exchange rate by spending its currency reserves, which were quickly melting. This, among other things, cause speculative attacks of hedge funds, which were borrowing baths and converting revenues to USD.In July 2, 1997, Thailand abandoned fixed exchange rate regime and adopted managed-float exchange rate regime.

This caused a major recession in large part of East Asia. Rich investors in New York and London City did not manage to distinguish between economies in East Asia. This caused investors’ panic in the whole region (Mainly Malaysia and Indonesia, whose exports, on top of everything, were greatly impaired by the devaluation in China in 1994 and Thailand in 1997), loss of currency values, and rise of interest rates in the whole region. Runs on banks caused problems for both banks and households. These problems led to further shrinking of investors’ trust. A self-fulfilling contagion that could have served as a warning for interlinked global economic architecture.

And the Experience?

[69] In 1990 World Bank and IMF financed larger amount of projects in all of East Asia than all private investors together. This had gradually changed. The amount of private investment in developing economics rose from 42 billion USD in 1990 to 252 billion in 1997. Thanks to Mexican crisis, larger and larger parts of these investments went to East Asia after 1994.

[70] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad. pp. 32-54, 72-92

There is one more historical experience that I would like to point out, because it took place in the heart of the Western civilization and earned George Soros a title of "the greatest speculator of all times". George Soros founded his hedge fund Quantum in 1969. In summer 1992 United Kingdom joined the ERM.[71] Quantum and its associates borrowed up to 15 billion pounds, converted part of them into dollars and then got rid of the rest as quickly as possible in hope of creating panic and widespread selling of pounds. George Soros increased pound devaluation expectation by publicly repeating that the pound will soon depreciate in interviews all around the world. United Kingdom spent almost 50 billion on currency markets in order to defend the pound. This tactics was unsuccessful and United Kingdom was forced to leave ERM and institute a floating exchange rate. The pound quickly depreciated and George Soros and his associates gained around a billion USD in matter of days.[72]

There are at least three lessons to be gained in these experiences that played a role in the current crisis. First, hedge funds and other speculators have tremendous power given their relative size and leverage strategies. Relative power of some financial groups is huge and can bring down whole economies in a self-fulfilling way[73]. This alone should be reason enough to closely monitor their activities, and regulate them if necessary. The above-described crises were partially direct consequence of the deregulation era of the laissez faire and Washington consensus.[74] This deregulation allowed wild predatory lending and speculation-driven growths. Second, these speculators and other investors behave irrationally. Paul Krugman commemorates a quote of Keynes, that economists should have in mind. Keynes compared the financial markets to *"those newspaper competitions in which the competitors have to pick out the six prettiest faces from a hundred photographs, the prize being awarded to the competitor whose choice most nearly corresponds to the average preferences of the competitors as a whole; so that each competitor has to pick, not those faces which he himself finds prettiest, but those that he thinks likeliest to catch the*

[71] In a situation of economic recession and at too high exchange rate. This cause increased discontent of public and devaluation expectations.
[72] To be fair, many economists agree, that if George Soros did not do what he did, the United Kingdom would have left ERM maybe few weeks later. George Soros just sped up the process.
[73] Krugman, P. R. (1996). Are Currency Crises Self-Fulfilling? In B. Bernanke, & J. Rotembers (Eds.), *NBER Macroeconomics Annual* (pp. 345-407). Cambridge: MIT Press.
[74] That era continued in the 2000`s although there has been, according to Joseph Stiglitz, already ample agreement of the Washington consensus failure. See Stiglitz, J. E. (2008). Is There a Post Washington Consensus Consensus? In *The Washington Consensus Reconsidered* (pp. 41-57). Oxford Scholarship Online Monographs.

fancy of the other competitors."[75]Financial markets are driven by sentiment and herd behavior. Investment flows do not indicate a comparable amount of good investment opportunities. These flows, especially when large enough, are more likely to have been caused by widespread mania and imperfect information. All the more reason for some regulation of these flows.[76]And third, contagion is a real problem. Joseph Stiglitz and Paul Krugman watched the crisis in Thailand spread to other countries all around the world. Joseph Stiglitz as a Chief Economist and Senior Vice President of the World Bank, Paul Krugman as an academic. No wonder both Krugman and Stiglitz saw the U.S. crisis of 2008 as a kind of déja vu.

Closely connected to the East Asian and Latin American crises are the critics of international financial institutions, namely the International Monetary Fund and the World Bank. Paul Krugman and especially Joseph Stiglitz are among the most prominent critics of these institutions.[77]Government needs to play a role. Economy needs a balance between the role of markets and the role of government. According to Joseph Stiglitz[78], the U.S. have lost this balance long ago. And furthermore, have forced or tried to force this disbalance to other countries around the world through the means of respected international institutions like the International Monetary Fund. This 1990`s enforcement of what is sometimes called a Washington Consensus caused rapid changes in the world economy and on the global financial markets.Joseph Stiglitz goes even further by accusing the IMF for worsening the crises in development countries by means of policies derived from this ideology.

"Back in 1997, I watched in horror as the U.S. Treasury and International Monetary Fund responded to the East Asian Crisis by proposing a set of policies that harkened back to the misguided policies associated with President Herbert Hoover during the Great Depression and were bound to fail"[79]When Thailand, Indonesia and South Korea turned to IMF for help, they were told to carry out a restrictive fiscal policy, rationale behind this being debt-management. The consequent fall of demand aggravated the economic downturn. IMF also demanded many structural changes in

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[75] Keynes, J.M. in Krugman, P. R. (2009, 09 6). How Did Economists Get It So Wrong? *The New York Times* , p. MM36.
[76] Krugman, P. R. (n.d.). *Analytical Afterthought on the Asian crisis.* Retrieved 04 29, 2010, from The Official Paul Krugman Web Page: http://web.mit.edu/krugman/www/MINICRIS.htm
[77] See Stiglitz, J. E. (2002). *The Rebel Within: Joseph Stiglitz and the World Bank.* Anthem Press. Also in Stiglitz, J. E. (2003). *The Roaring Nineties.* W.W. Norton & Company; Stiglitz, J. E. (2002). *Globalisation and its Discontents.* W.W. Norton & Company.
[78] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books.
[79] Stiglitz, J. E. (2010). *Frefall: Free Markets and the Sinking of the Global Economy.* London: Penguin Books, p. xiv.

the affected countries. These were subject to political deliberations and the dealings took time while the crisis of trust grew worse. No wonder Joseph Stiglitz found these measures repulsive.IMF prescribes budget cuts and high interest rates where a Keynesian adherent would expect increased spending. But this is not the only reason. IMF`s major concern according to Stiglitz has been minimizing the impact on western banks, not the well-being of the counry`s inhabitatnts. To U.S. observers and City men, the East Asian bailouts in 1997 were a success because the Western world emerged unharmed.

3.4 Liquidity Trap and Credit Rationing

For some time now, financial markets have been, to some extent, experiencing a situation of liquidity trap. At least some of the symptoms of this concept introduced by John Maynard Keynes[80]. Before further developing one of new Keynesian descriptions and explanations of this situation, lets have a look at another historical example: Japan in 1990`s.

Japan had large market regulation in the second half of 20th century. Japan also was one of the countries loosening the regulation in the 1980`s. Japan banks started to borrow money to clients they knew nothing about even on a larger scale than in other countries. And an equity speculation bubble occurred. The Japanese central bank[81] was concerned by the rising amount of speculations and bad loans and started to increase interest rates in 1990. This tactics was successful. At least in one sense. The prices of equities were steadily falling. But the bubble growth was thus over and so was the economic growth. Japan did not manage to crank-up the economy for almost ten years. It went through a long period of "Growth recession" – the economy was growing[82] but way under the growth of its potential.[83] Poor performance of Japanese economy reimbursed the distrust to any kind of regulation in the U.S. - American economists and policymakers were watching Japan very closely because if its initial growth.

Where is the liquidity trap? Japan lowered its interest rates almost to zero gradually in the

[80] Keynes, J. M. (1936). *The general theory employment, interest and money.* New York: Harcurt Brace.
[81] Bank of Japan
[82] The real growth of HDP was negative in Japan for only two years in the period 1990-2000.
[83] Some economists argued, that this gap might be over ten percent. See Krugman, P. R. (1998). It`s Baaack! Japan`s Slump and the Return of the Liquidity Trap. *Brookings Papers on Economic Activity , 2.*

1990`s. According to Paul Krugman[84], these steps were too slow and not nearly sufficient enough. Fear that the same policy that brought the crisis cannot solve it, prevented Japan from more serious steps. The lines of credit did not open. Consequently, there was not enough liquidity to keep the economy on par with its potential. Although there were attempts to create a fiscal stimulus, they were too small due to political fear, demographic development and increasing budget deficit. Japan simply could not afford big enough stimulus. According to Krugman, what has helped Japan in the end was fast rising export in 2003 - but only temporarily. The interest rates in Japan were around 0.5 percent in 2009 and the debt to GDP ratio rose up to 200 percent. Japan thus does not have many policy opportunities to offset the decline in exports due to current global economic crisis.

This historical experience is connected to the Krugman`s and Stiglitz`s criticism of the steps of George Bush and Barack Obama administrations and may provide one of the explanations why the bailouts and stimulus will not work. Liquidity is closely connected with expectations. The Japanese experience suggests that if you carry through a fiscal expansion, it should be done quickly and on a large enough scale. This is exactly what U.S. government failed to do according to criticisms described in the first chapter. The experience from East Asia also suggests, that if a country does not spend its money on a stimulus, the creditors will demand high interest rates, because the economy is weakened. However, if a large stimulus is instituted, the country increases its indebtedness and creditors might thus also demand higher interest rates and lines of credit might not open. There is no fiscal win-win solution in these situations. On that account I believe, that social and institutional impact of a government stimulus should be considered as one of the main measures when deciding whether to put it in place.

Credit Rationing

By means of credit rationing theory, Joseph Stiglitz provides a theoretical explanation why monetary policy fails in times of crises. Credit rationing theory also describes a mechanism by means of which firms and consumers might not have unlimited access to credit in times of crises. How does it work?

[84] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad. p.54-72

Stliglitz and Greenwald[85] state that banks facing the risk of bankruptcy (due to i.e. higher probability of loan defaults caused by economic crisis), behave in a risk-aversive manner and credit rationing may take place. *“This risk averse behavior of banks will magnify an initial negative economic shock, and make recessions deeper and longer. The banks` portfolio activities can usefully be divided into recruiting and processing new customers; making (and monitoring) loans to existing customers; and buying safe asset, like Treasury Bills.”*[86]

Credits are not allocated simply by providing loans to the debtor who is willing to pay the highest interest rate. Higher interest rates may create incentives for the debtors to engage in taking higher risks, thus increasing the probability of defaulting on the loan. If there is a risk of defaulting on a loan, lenders have incentives not to loan to debtors who are willing to pay highest interest but engage in risky businesses. Banks have to estimate the costs of possible loan default and subtract them from the sum of interests to estimate the overall expected returns. Providing loans with higher interest rates can then actually lower the expected return of the bank. Lenders will then have to estimate an interest rate with highest expected returns. This may not be an equilibrium interest rate when supply equals demand, and situation of excessive demand for credit occurs. Shortness of credit supply leads to lower investment and, in some cases, lower production. This can greatly prolong and deepen recessions.

According to Stiglitz and Weiss[87], credit rationing takes place if the bank cannot properly estimate the riskiness of loan[88]. Above some interest rate, banks estimate high risk of adverse selection: higher number of risky borrowers, which the banks cannot distinguish from the less risky ones. There are signs this is what has happened.[89] But why would banks out of a blue not be able to properly estimate the riskiness of their clients? This is closely connected to a new “statistical” system of assessing risk that took place on financial markets.

[85] Stiglitz, J. E., & Greenwald, B. (1990). Macroeconomic Models with Equity and Credit Rationing. In G. R. Hubbard (Ed.), *Information, Capital Markets and Investment* (pp. 15-42). Chicago: Chicago University press.
[86] Stiglitz, J. E., & Greenwald, B. (1993). New and Old Keynesians. *Journal of Economic Perspectives , 7* (1), 23-44.
[87] Stiglitz, J. E., & Weiss, A. (1981, 06). Credit Rationing in Markets with Imperfect Information. *American Economic Review* , 393-410.
[88] Or in cases of limited liability of the borrowers if the return of their investment is lower that the borrowed amount (plus interest)
[89] Martin Pospíšil argues, that data confirm credit rationing in Czech Republic after fall 2008. Pospíšil, M. (2009). *Three Essays on Joseph Stiglitz nad information asymmetry* (Sv. Diploma Thesis). Prague: Charles University in Prague, Faculty of Social Sciences, Institute of Economic Studies.

In 2004 Basel Committee on Banking Supervision issued a second Basel Accord (Basel II)[90] in order to create international standards for banking regulation. Parts of the Basel II recommendations are concerning risk management in order to promote stability of the financial system. According to Basel II, credit and operational risks should be considered separately and both should qualify when granting a loan. Part of these recommendations can be simplified in the following way: creditworthiness of clients should be connected with his credit history. Completely different practices were common before the crisis: clients were evaluated mainly on purely statistical basis. They were simply divided into classes of default probability, based on measures like their social background.The problem was, that these classes were set up during an economic conjuncture. But when the crisis began, probabilities of defaults increased more than anyone has expected and the old statistical estimations were no longer valid.

Another reason for improper risk assessment was securitization of loans. Banks who assessed the client then sold the loan to an investor, who then bore the risk in case of default. These investors were often not qualified to assess these risks connected with their investments. They did not have direct access to the client - Those buying security backed by mortgage or a loan are lending money to a consumer they know nothing about. Plus investors like households and pension funds[91] did not have the necessary experience.

In a situation of credit rationing, monetary policy might not work[92]. The same goes for the government bailouts of financial institutions. These measures increase the overall wealth of banks so that they become less risk aversive. However, this increase might not be big enough to subsequently fill the whole gap between supply of loans and demand for credit.

3.5 Too-big-to…be productive?

“(B)anks that are too big to fail are too big to exist. If they continue to exist, they must exist in what

[90] Basel I from 1988 considered mostly recommended minimal capital requirements for banks and was signed to law in G-10 countries in 1992.
[91] Thanks to clever system of slicing the securitized loans into several classes of seniority, the highest class was often given AAA ratings. This is one of the reasons why institutions like pension funds – who can invest only in the safest securities in the U.S. – were also hit by the crisis.
[92] And it did not. Although the FED lowered the interest rates by almost 4 percent in the first half year of the crisis, interest rates of some financial products actually rose the whole time.

is sometimes called a "utility" model, meaning that they are heavily regulated."[93]

The term "moral hazard" has its roots in the mid-80`s in New York. Many speculators in the city bought buildings for extremely high prices from interposed companies. Then they got insurances corresponding with the purchasing price. The buildings did "tend to" catch fire right after the insurance became valid earning the speculators (they were owners of the interposed companies) millions. Since then, moral hazard became an universal term for a situation when the person taking a risk (and getting the possible benefits) is not the person who has to cover possible losses. Let me begin the long list of misaligned incentives and moral hazards on financial markets by listing those, that are closely connected to the size of financial institutions.

As noted before, repel of Glass-Steagall act signed into law in 1999 helped to create financial institutions of unprecedented sizes. The size itself is not a problem for standard economic theory, as long as there is enough competition to prevent monopoly behavior on the market. However, it also brings about several issues that can cause important inefficiencies and imbalances not connected to monopolistic behavior.

First and foremost, the biggest banks have great political power. Not just as biggest benefactors of political campaigns[94] and through lobbying contacts, but also thanks to their large blackmailing potential. A fall of a big financial institution can cause substantial damage to the economy, but estimates of this damage are often on purpose medially exaggerated by the representatives of these institutions. These representatives are often given more media space than independent analyst, thus creating expectation of panic should the banks not be bailed out. The consequent public and media pressure on politicians together with threats of losing campaign benefactors is a classical case of political capture. And, as in most cases of political or regulatory captures, negative externalities for the wide public are the usual outcome.

There were two main reasons for the way government bailouts of banks have been carried out in the U.S.: the real danger to the economy should these institutions go bankrupt and the political power of Wall Street. Both are closely connected to the size of financial groups. The relative

[93] Stiglitz, J. E. (2009, 12 07). Too Big to Live. *Project Syndicate* .

[94] Barack Obama largely relied on many small contributions from large number of individual benefactors and in the end he managed to gain more than his opponent. However, he is a rare exception.

political power of Wall Street can be demonstrated for example on double bailout measures of the U.S. government. When General Motors has been saved in 2008, restructuring took place and wages of the employers were lowered in order to ensure future viability of the enterprise. There were no such measures included in the financial bailouts. Moreover, Goldman Sachs – for the success of obtaining large part of government bailouts as one could ironically put it - paid its managers $16 billion in bonuses in 2009.[95]

There is nothing that stops Goldman Sachs and others to resume their practices. This is a typical public costs – private benefits moral hazard scenario, at least in two ways. First, big banks know they are too big not to be bailed out in case of bankruptcy (and could have guessed so before the crisis), this creates incentives to take excessive risks knowing that in case of success they win the profit and the taxpayers will carry the losses if anything goes wrong.Bottom line is that without structural and regulation reforms, Bush administration has merely provided more money for the financial institutions to gamble with and assurance that excessive risk taking will not be punished in case of losses.

The excessive size of financial institutions brings about even more issues than the too-big-to-fail phenomenon. Namely, a greater problem with corporate governance, control and accountability distribution. Banks that are too big to fail are simply also too big to be managed. Moreover, they are too big to be restructured as well. At least this is the rationale Joseph Stiglitz[96] sees behind the peculiar kind of U.S. bailouts that took place.[97] I think it is more likely another example of political capture: threat of panic in financial markets should the government try to gain stakes in these institutions by pitching out the current shareholders.[98]To put it simply: big banks do not want to be restructured and they have enough political power not to let it happen. On the other hand, they want

[95] Golman Sachs introduced a product called "Abacus" in 2007. It was created by hedge fund of John Paulson and contained mostly CDOs backed by subprime mortgages. When the market with CDOs collapsed, Paulson bet against his own product and gained $4 billion in the process. American SEC concluded, that Goldman Sachs managers were telling their clients that Paulson invested in Abacus (and thus they should too) although he did not. Goldman Sachs now faces charges for fraud. On the other side, I am also concerned that Goldman Sachs might become a political scape-goat of the crisis. Finally someone for governments to blame (and largely probably rightfully) - but with someone to blame, there are lower incentives to carry through much needed structural reforms.

[96] Stiglitz, J. E. (2009, 06 08). America`s Socialism for the Rich. *Projet Syndicate* .

[97] The bailouts have been repeatedly called "cash for trash", even by Paul Krugman, arguing that government is buying off the toxic assets way overprice, while getting no stakes and no real power to restructure the institutions. Paul Krugman also called this approach "a zombie idea" – one that you keep killing and it just keeps coming back. He used this term largely because he criticized every bailout only to see the next one be the same.

[98] According to Stiglitz, this is even more peculiar strategy given the fact, that most current value of the shares is reflection of the bailout efforts.

to be given money as a part of the rescue plan, but without any changes in the system whatsoever.

3.6 Other Systemic Risks

“If people now start buying stocks based on the belief that they are not risky at all, that belief will turn into a self-defeating prophecy.”[99]

There have been many more perverse incentives and long overlooked systemic risks on the financial markets than those connected with the size of financial institutions. Many of these, like the problem of agency, have been widely discussed for years by economists. I will first go through a short overview of these risks and then write more broadly about some less discussed ones.

Around a hundred smaller U.S. announced bankruptcy in 2009. Bailout of smaller financial institution was never part of government rescue plan. These smaller institutions thus do not bear such extensive negative externalities for the taxpayers and their incentives are not as much misaligned by asymmetric risks. However, even a system of smaller banks can inherently carry large systemic risks if they are closely interconnected and use the same faulted schemes and models for risk estimations. Surely enough, most banks have been using similar models of risk assessment. Valuation of products was not done by market, but by few predefined computer and statistical systems. Moreover, it is nearly impossible to properly estimate risks of bankruptcy since the firms and banks are interlinked and their bankruptcies influence each other. Accounting for that would require much more sophisticated instruments than we have at our disposal. Extensive use of similar models becomes a problem especially if the models are set up in times of economic upswing, when the risks of bankruptcies are substantially different than in a case of downturn. If these models were wrong[100], all banks consequently did the same mistakes, thus inflating the housing and securities bubbles. Moreover, banks in a dire situation of bubble bursts have to get rid of similar assets, which drives prices of these assets low putting banks up to getting rid of more assets yet more aggravating their problems as a self-fulfilling prophecy.

[99] Krugman, P. R. (1999, 12). *DOW 36,000: A Self-Defeating Prophecy.* Retrieved 04 23, 2010, from The Official Paul Krugman Webpage: http://web.mit.edu/krugman/www/

[100] Actually in fall 2008, every week occurred few new events that were supposed to happen once in decades according to some of these models. Paul Krugman states that “*There was nothing in the prevailing models suggesting the possibility of the kind of collapse that happened last year.”* Krugman, P. R. (6. 09 2009). How Did Economists Get It So Wrong? *The New York Times* , str. MM36.

Another systemic risk is closely connected to the matter of overall market informedness. Loosening of accounting standards in the U.S. during the era of Alan Greenspan led to a state that is probably best described by Paul Krugman`s term "Potemkin economics"[101], when it is hard for a bank to know position of any other bank. At the same time, they are searching for accounting loopholes to appear more viable than they are. When markets realized this impossibility to know the real state of things, the trust and confidence disappeared, consequently freezing the financial flows.

In the 1980s a wave of deregulation swept through the world. The rationale of this wave was giving banks more freedom but allowing more subjects to the market at the same time and thus increasing the competition. The result was that investment banks started taking higher risks and those who did stick to the traditional banking practices had their margins lowered through higher competition. This then again created incentive for bankers to start taking higher risks. The securitization innovations were a welcome way that should have started a new era of overall failproof safety and financial stability. When investment banks and other institutions felt that financial innovations cause higher stability and risk-sharing, they decreased their "safety pillows" of capital reserves.[102]But the securitization brought about also something else than spreading risks. It created new information imperfections. Many speculators admit, that they were speculating with complicated products they knew nothing about. This overall lack of informedness was further fuelled by speculators` incentives: they simply didn't want to know, because they did not have to. Their main concern was to pass on the package of financial instruments they knew virtually nothing about and make profit in the process.

Another systemic risk is connected with a widely discussed issue in economics: the agency problem. Separation of ownership and management, while having many benefits, has also its risks. The sky high bonuses for managers derived from the annual performance create a serious misalignment of incentives: while the shareholders` goal is long-term prosperity of firm, because they want their investment to have highest possible present value, management is motivated just by the short-term results. Manager knows, that he might not be there next year, so he undertakes high long term risks – high short term returns scenarios in order to receive the highest possible bonuses. This incentive to take on high risks is amplified on by the fact that managers who caused huge

[101] Paul Krugman actually uses the term with slightly different connotation for the situation in Russia in mid-1990s and the consequent events of summer 1998. Common ground for both uses is clouded and fuzzy information.
[102] Replenishing of these reserves is one the reasons monetary policy might not work.

losses to both shareholders and taxpayers, often by using predatory practices, are subject to almost no liability. They keep their bonuses while others pick up the bill. According to both Joseph Stiglitz and Paul Krugman, the current system of corporate governance works too much in favor of managements. *"Bankruptcy is a key feature of capitalism"*[103]. This feature has somewhat deteriorated, especially in case of large international enterprises. The institutional background (special courts, legal system, regulation) should ensure that management driven by vision of short-term gains does not ruin the companies or that it strips-off the enterprise of viable assets before the creditors become the new shareholders. It fails to do so.

While both Paul Krugman and Joseph Stiglitz are both concerned with high potential public costs of the above-mentioned systemic risks they both fail to see one key systemic flaw on financial markets, that is, I believe, quite serious: the system of rating agencies. There are only three major rating agencies in the world.[104] They use similar models and the problem I wrote about in banking industry is thus transferable. Furthermore, the agencies are far from independent. Cases of substantially different ratings are quite scarce. Once one of the agencies has given its rating, the others include this rating as part of their evaluation. This concentrates tremendous power in hands of just few people who work out the methodic of evaluating. One example from not so distant past is Greece: there was a huge difference between highest speculative and lowest investment rating for the Greek government.[105] There is only a slim factual difference between these ratings. A being of a whole country was dependent on assessment from just a few people rating it with important differences that could easily be under their distinction abilities.

These rating agencies gave the senior CDOs AAA ratings even in cases when majority of backing mortgages were subprime[106]. This opened channels for financing these mortgages on a much greater scales since there is a large number of investors who want only AAA investment (or legally have to invest only in the safest possible securities due to legal issues – like pension funds)

[103] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books. p.115

[104] Truly, few industries are so monopolized. There are incentives for current and further monopolization - the size of the rating agency is perceived as one of the aspects of its credibility.

[105] An investment rating from at least one of the major agencies was a condition given to Greece by ECB.

[106] This was partly due to "seniority" of these CDOs partly because the risks of homeowners defaulting on their mortgages were wrongly assessed and partially because of the influence the security issuers had on the rating agencies – yet another moral hazard.

3.7 Regulation

"Whenever there are "externalities"—where the actions of an individual have impacts on others for which they do not pay or for which they are not compensated—markets will not work well. But recent research has shown that these externalities are pervasive, whenever there is imperfect information or imperfect risk markets—that is always."[107]

According to Joseph Stiglitz, existence of externalities can cause markets to produce inefficient outcomes. This is where a space for regulation opens. Regulation obviously does not automatically ensure more efficient outcomes,[108] but both Joseph Stiglitz and Paul Krugman call for regulatory measure that they believe will lead to higher overall system efficiency in the future. Banks are regulated because their failure can do massive damage to the economy. This regulation can be successful. That has been demonstrated after the events of Great Depression and post-war regulation that brought a period of long relative stability in the financial sector.

Where did the regulation fail? According to Paul Krugman[109] one of the major regulatory failures of the U.S. government and FED was overlooking of creation of a "shadow banking system"[110]. Paul Krugman does not see the biggest problem in Glass-Steagall act cancellation of 1999.[111] According to him, the greatest problem was in the institutions that were never part of the banking system. In 1984 a new kind of securities was invented in Lehman Brothers, the auction-rate securities. This security allows investors to be replaced by means of an every so often held auction – where new investors auction for the right to replace those investors who want to terminate their investment. Institutions issuing the security then fulfill some roles of banks: they allow the creditors almost instant access to their money and finance projects of debtors who for any reason do not or can not utilize services of a regular bank. This scheme provided loans worth almost 400 billion dollar by the beginning of 2008.[112] It became so popular mainly because the loans provided by the shadow banking system were more favorable than those provided by regular banks. Simply because institutions issuing the auction-rate securities were not subject to banking regulation and did not

[107] Stigitz, J. E. (2006, 10 11). Managing Globalisation. (D. Altman, Interviewer) The International Herald Tribune.
[108] Interestingly, regulation itself is also subject to problem of externalities. Every country has its own regulation responsibility. However, regulation failure causes substantial losses to wide public in other countries as well.
[109] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad. p.136 – 145.
[110] This term is used by Paul Krugman. Timothy Geithner and other economists use the term "parallel banking system".
[111] He also criticizes the right side politicians for blaming the Community Reinvestment Act of 1977 that forced banks to give housing loans to members of minorities.
[112] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad.

have to pay for insuring the deposits. However, the shadow banking system is again an instance of the Ponzi-scheme. It works only if there are enough new investors willing to replace the old ones in the auctions. By the beginning of 2008 trust in this kind of securities evaporated and the whole system crashed. This was one of the direct causes of the economic crisis. Why did breakdown of this system cause so much damage?

"In the beginning of 2007, assets in hedge funds amounted to almost 1.8 trillion USD. Aggregated final accounts of five biggest investment banks in the U.S. amounted to 4 trillion USD. In comparison, value of assets of five biggest bank holdings in the U.S. amounted to 6 trillion USD."[113]When the crisis started, the market of auction-rate securities (granting loans amounting to 330 billion USD by that time) collapsed and the cascade of other financial products followed - market of commercial securities backed by assets (granting credits amounting to 1.2 billion USD) in the first line.

If the auction-rate security market was part of the banking system, issuers of these securities would be able to borrow money from FED when the auctions occurred, and the auctions would not be such a failure when the demand for this type of securities declined.

Paul Krugman sees a direct parallel with the situation of 1907. The Federal Reserve was created in 1919 as a part of attempts to regulate financial institutions known as trusts. Trusts we able to provide more favorable loans because the that-time banking regulation did not apply to them. In 1907 financial markets in the U.S. experienced a panic following the fall of the Knickerbrocker Trust. A situation quite similar to the Lehman Brothers aftermath.

The shadow banking system is very closely connected to the problem of contagion. Paul Krugman offered an explanation of how the crisis spread so fast: Once a hedge fund has to sell its assets to repay its debts, this causes overall decline in prices of these assets. But other hedge funds hold the same kind of assets, thus their net value decreases. This motivates investors to pull back their money from these funds and a new wave of consequent selling of assets. This approach has been criticized through theory of decoupling.[114] However, European economies were not saved by the growth in East Asia. Asian economies are simply too small. The consumption of the whole of

[113] Federal Reserve Bank of New York chairman Timothy Geithner, June 2008.
[114] This theory holds, that Asian economies and other emerging markets do not depend on the U.S. for growth. Surprisingly for adherents of this theory, when the panic occurred in September 2008, the losses were greater outside U.S., mostly in developing countries and countries like Germany and Japan.

Asia is just the quarter of that of the United States. Joseph Stiglitz offered an alternative explanation of crisis spreading: one quarter of the U.S. subprime mortgages has been sold abroad and two of the three biggest beneficiaries of A.I.G. were foreign banks.

What now?

Extensive regulation certainly has its costs, but these costs, according to Joseph Stiglitz, more than outweigh the costs imposed on taxpayers should the regulation not be in place in the near future. This is probably true - only four OECD countries did not have to put any money in their banks in last two years, Czech Republic being one of them.

Which measures could then help prevent future financial crises? *"Mr. Rubin put it clearly: If Wall Street companies can count on being rescued like banks, then they need to be regulated like banks."*[115] Barack Obama said a similar thing in his speech on the financial emergency in New York. *"We need to regulate financial institutions for what they do, not what they are."*[116] or as Robert Kuttner wonderfully rephrased it (although saying it a year earlier) *"If it quacks like a bank, regulate it as a bank".*[117] Reinstituting a new version of Glass-Steagall act can be a first step in this direction of overall risk taking reduction. Joseph Stiglitz also proposes creating a Financial Products Safety Commission where Innovations should be evaluated by their social impacts, not by potential profits. Financial markets will never do it themselves and government needs to step in. This is something that is not difficult systemically[118] – but very difficult politically. Investment banks will use all their power to prevent this.

Two more sets of policies would be logical consequence of the problems described in this chapter. First, policies that would lead to reducing the scope of identified risks in corporate governance by increasing accountability of managers. This could be done for example by harder institutional control of executives or tighter bankruptcy law affecting not only the shareholders but the executives as well. Second, policies enforcing higher transparency and informedness in banking industry. Contrary to this idea, accounting standards have been changed in the USA in 2009 in favor

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[115] Krugman, P. R. (2008, 03 04). Taming the Beast. *NYTimes.com* .
[116] Barack Obama, a speech on the financial emergency, New York, 17th March 2009.
[117] Kuttner, R. (28. 09 2008). Seven Deadly Sins of Deregulations - and Three Necessary Reforms. *The American Prospect* .
[118] It is actually not hard to define which products can financial institutions operate with. This legislation is already in place for many kinds of institutions in most European states and the USA.

of even less transparency.

Many of these regulatory efforts are tremendously technically demanding, close to impossible. Hopes are high for a new Basel Accords update, Basel III, that includes some of the mentioned policy courses. On 16th April 2010 public comment period of Basel III documents ended and target date for Basel III implementation is set on 31st December 2012.

There is a simple test to tell, whether the taken measures make sense: If they were in place, would they prevent the current crisis? *“Everything, that needs bailout during the crisis because it is an essential part of our system, should become subject to regulation that would make undergoing high risk practically impossible”*[119]To cope with emerging challenges is always hard. But the current crisis showed so many loopholes in our previous system, that it will be really hard to cope with the known ones.

The steps that will be undertaken in the next few years should definitely not be limited by this test. “*It may be difficult to have a strong global economy as long as part of the world continues to produce far more than it consumes, and another part – a part which should be saving to meet the needs of its aging population – continues to consume far more than it produces.”*[120]Reduction of both international and U.S. large domestic social inequality would lead to increase of overall consumption and economic growth. Creating global reserve system in order to strengthen global consumption, as Joseph Stiglitz proposes, could support this endeavor: this reserve system should be used to help developing countries to spend more and save less.[121]If the domestic social inequality reduction effort takes place, part of it will surely be abolishment of George Bush administration tax cuts and more progressive taxation in the U.S.

Joseph Stiglitz also proposes to minimize the risks of externalities in the future by eliminating as many of them as possible.*“The financial sector has imposed huge externalities on the rest of society. America’s financial industry polluted the world with toxic mortgages, and, in line with the well established “polluter pays” principle, taxes should be imposed on it.”*[122]This raises an old-new issue of tax paradises into account. The international community would have to put

[119] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad. p.167
[120] Stiglitz, J. E. (2010). *Frefall: Free Markets and the Sinking of the Global Economy.* London: Penguin Books. p. xxiii
[121] Stiglitz, J. E. (2006). *Making Globalisation Work.* London: Penguin Books.
[122] Stiglitz, J. E. (2010, 03 05). The Dangers of Deficit Reduction. *Project Syndicate* .

pressure on these tax havens for this taxation proposal to actually make sense. Part of reducing the market imperfection costs caused by externalities is taxation of environmental externalities like pollution. Such measures could also provide motivation of a new wave of innovation.

Whether any of these proposals will ever see the light of a day in terms of economic policy is unknown. Neither is clear if any of them are going to work and help achieve a more balanced governance of global financial markets, more fair to all participants and bearing lesser socialization of risks while benefits are almost exclusively privatized. What is clear, is that some changes are necessary and insights of Joseph Stiglitz and Paul Krugman provide a good idea, which way should our attention be steered.

4 Afterthoughts

"Some say, that our economic problems are structural and there is no chance for fast recovery. I believe, that the only important structural obstacle on the road to global prosperity are old doctrines, that clog human minds as rummage"[123]

Let me now try to explore some of the most general issues raised in the previous chapters. These will namely be the conflict of regulatory and deregulatory tendencies, obsession by consumption and GDP growth as a possible source of crisis and an overall level of economic discussion.

4.1 Regulation again

"(T)he myth of self-regulating economy, in either the old guise of laissez faire or in the new clothing of the Washington consensus, does not represent a balancing (…) freedoms."[124]

Opponents of introducing any new regulatory measures have two ways of argumentation at their disposal. First, that any state interference will in the end produce inefficient outcomes or have no impact at all. This argumentation presupposes some kind of belief in the invisible hand and hypothesis of efficient markets.[125] Both have been in last decades greatly undermined by theory of information asymmetry. But the thought that market self-regulation does not work is in no way a new one.[126]Second, that any regulatory measures take away our freedoms, which implies they are bad. But what freedoms are we talking about?

"We have nothing to fear but fear itself"[127]. This phrase suggests that there are more subtle freedoms than those nobody would deny as basic, like freedom of speech, press or religion. Consider for instance constraints that are imposed on human beings by lack of education or poverty. Czech Philosopher Jan Sokol argues that nothing motivates human fantasy, produces more desirable

[123] Krugman, P. R. (2009). *Návrat ekonomické krize.* (E. Křístková, Trans.) Praha: Vyšehrad. p.168
[124] Stiglitz, J. E. (2001 (first published in 1944)). Foreword to The Great Transformation. In K. Polanyi, *The Great Transformation - The Political and Economical Origins of Our Time* (pp. vii-xvii). Boston: Beacon Press.
[125] And, of course, other approaches like menu-costs theories, efficiency wages or implicit contracts.
[126] See Polanyi, K. (2001 (first edition 1944)). *The Great ransformation - The Political and Economic Origins of Our Time.* Boston: Beacon Press.
[127] Franklin Delano Rossevelt, 1930s

outcomes and institutes more freedom than a good set of constraints.

According to him, good constraints can actually increase our freedom. How is that possible? The individual freedom is greatly interdependent with freedom of others. Legal system imposes quite a few constraints on citizens. However, would I have more freedom in a country with no legal system than I have in Czech Republic? Would I have more freedom if I could not walk on the street without having to be afraid of being shot? Laws actually, to some extent, give us freedom of not being afraid of being killed. Accepting that constraints might increase our freedom is not easy. It requires one difficult psychological step: to abandon the thought that freedom means that one can do whatever he pleases.

Let's go back to economics. The call for more regulation by Joseph Stiglitz and Paul Krugman is not an attack of capitalism, democracy or freedom. It is attack on laissez-faire ideology and on certain freedoms of certain individuals for the greater public good. For instance, *"The freedom to move capital in and out of a country at will is a freedom that some exercise, at enormous costs to others."*[128]. It is an attempt to correct a financial system where *"(a)varice triumphs over prudence"*[129]. The freedoms to be gained from the proposed measures are above all, lower disbalance between developed and developing economies and lower social inequality. Neoclassical economics justifies inequality in the following way: every worker is paid by his marginal contribution to the society. Neither Paul Krugman nor Joseph Stiglitz sees this claim as justified. Joseph Stiglitz suggests that thanks to misaligned incentives, there is no relationship between wages and marginal social contributions. Decrease in social and global inequality, even if achieved through regulatory measures, has a great potential of increasing overall freedom from poverty.

4.2 GDP Growth

"(A)re statistics giving us the right "signals" about what to do? In our performance-oriented world, measurement issues have taken on increased importance: what we measure affects what we do."[130]

Does GDP provide a good measure of living standards? It most certainly does not, in that aspect I agree with Joseph Stiglitz, who has been recently working close to Nicolas Sarkozy on a new measure of economic development. GDP does not measure social inequality or structural and

[128] Stiglitz, J. E. (2001 (first published in 1944)). Foreword to The Great Transformation. In K. Polanyi, *The Great Transformation - The Political and Economical Origins of Our Time* (pp. vii-xvii). Boston: Beacon Press.
[129] Stiglitz, J. E. (2010). *Freefall: Free Markets and the Sinking of the Global Economy.* Longon: Penguin Books.
[130] Stiglitz, J. E. (2009, 09 07). GDP Fetishism. *Project Syndicate* .

qualitative comparisons of countries. Take the U.S. healthcare system. U.S. put more money in their health care than any other country while getting poorer results than most developed countries. Should this system be considered better performing just because of the higher financial flow?

Obsession with by GDP growth has definitely left its footprint on the current crisis. If the officials did not present and the public did not perceive the GDP growth as the only important indicator of the economic performance, many of the above-mentioned systemic risks could be prevented. Imagine if overall happiness, adherence of ethical standards or just social impacts of financial operations were considered important parts of improving economic life and received some of the attention the GDP growth receives. John Maynard Keynes believed this was the course of future economic development[131]. That new values will rise in about a hundred years and we will no longer have to be concerned with just material development and the pace of life will deepen and slow down. Joseph Schumpeter stated, that Adam Smith thought similarly: *"Smith was a typical child of Enlightenment, he believed in the hopes of progress. Yet he also believed in a stationary state where we shall be affluent and grow no more. Let us also note here that Smith viewed division of labor as the only source of progress."*[132].

The Asian economies are catching up with those in the Western world. South Korean GDP per capita has risen more than 200 time from 1950`s[133]. There is nothing that can be done about it. If China's GNP[134] two hundred years ago represented one third of the world GNP and then went down to under 5 percent of the world GDP[135], we should not be surprised that it is growing fast again, given one fifth of world population in China. The West should accept this and not try to increase its GDP growth at all costs, comparing itself to emerging economies.

I definitely do not consider GDP growth a bad thing. I do not think that measuring GDP should be abandoned. The criticisms of this measure, including the one of Joseph Stiglitz, are simply not reason enough to let it go. But I sincerely believe that we need a serious reinterpretation of the ways some economist, most policymakers and wide public perceives this measure.GDP is not in almost any way connected to what common sense would describe as country's economic

[131] Keynes, J. M. (1963 (first published 1930)). Economic Possibilities for Our Grandchildren. In *John Maynard Keynes - Essays in Persuasion* (pp. 358-373). New York: W.W.Norton & Co.
[132] Schumpeter, J. A. (2006 (first edition 1954)). *History of Economic Analysis.* London: Routledge. p.182
[133] From $70 to $16 000.
[134] GDP measures are not available for that time
[135] This was largely because of opium wars caused by Britain`s opium trade missions.

development. There are two main reasons for this. First is the possibility of debt-financing[136]. *"Everyone who understands basic neoclassical concepts of economics can ensure a 20 percent GDP growth in one year, at cost of tremendous increase of debt. Measuring GDP without looking at deficits is like measuring body temperature of a man in a block of ice."*[137]. And second, even if the GDP growth is not debt-driven, there is still need to have a closer look at its cause.

The pre-crisis growth in America was largely driven by consumption,[138] while the incomes of most Americans have been stagnating. This points back to debt financing. America is consuming far more than it produces. This is one of the reasons why the U.S. should not want to return to the pre-crisis state. When the housing bubble bursted, it couldn't be replaced by anything else like the dot.com bubble burst was replaced by housing bubble. Logically, ways to increase productivity and spend less have to be found. However, this is an easy-to-make not easy-to-accept inference. It is also one of the reasons why Joseph Stiglitz exhorts to carefulness when introducing budget spending cuts. U.S. needs long-term oriented reforms. This means that the spending cuts of Obama administration cannot go on account of investment and production increase. The deficits have to be lowered carefully, minding the structural state of the economy and its future development. This is a consistent part of both Joseph Stiglitz`s and Paul Krugman`s view of future development of the U.S. economy: it needs to turn from debt-consumption-FDI driven growth to a more production-increase approach. Even if the financial system was back in good shape, many of the long-term economic problems would prevail.

4.3 Economics

"Truth, in the final, is tested by agreement. And if men disagree, there is no truth"[139]

"The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves quite exempt from any intellectual influences, are usually the

[136] Which is also one of the reasons why I believe markets cannot work perfectly. If we have a chance to indebt ourselves knowing that future generation will have to pay for our debts, markets might not generate optimal results. Some theories of self-correcting markets are based on different agents advocating their interests against each others. But those who were not yet born cannot advocate their interest. I could rephrase a famous quote of John Maynard Keynes in the following way: "In the short run, some of us are not yet born". *Us* meaning all current relevant market actors.
[137] Tomáš Sedláček, 20th Anniversary of the Faculty of Social Sciences, Institute of Economic Studies. May 2010.
[138] The idea that consumption-driven societies are bound to fall through abolishment of ethics is a really old one. See Plato. *The Republic,* Part V.
[139] Buchanan, J. M. (2000(originally published on 1977]). *Freedom in Constitutional Contract: Perspectives of a Political Economist.* TAMU press.

slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back"[140]

I do not think that economics is a science in Karl Popper's falsification sense[141] that natural sciences use to define themselves nowadays. However, I very much believe that economics should internalize as much of his critical rationalism philosophy[142] as possible. So did Karl Popper himself at the end of his life, when he grew to become an admirer of economics as the most rigorous of social sciences.*"Popper repeatedly calls his view Critical Rationalism. (...) Popper denied that his view of science is anything like the falsificationism that Lakatos promoted."*[143]. Imre Lakatos promoted a conception of science that is, I believe, untransferable to economics.*"A given fact is explained scientifically only if a new fact is predicted with it. (...) The idea of growth and the concept of empirical character are soldered into one."*[144]The crisis has shown us, that economics cannot provide reliable predictions even in the most important matters, like coming of the crisis itself. Neither should it`s theories be asked to do so. Of course, all kinds of economics make predictions. "If we all behave ethically and work harder, GDP growth will be higher that if we didn`t" is a kind of prediction. But it is far from what *fact* is in Lakatosian sense and definitely is not subject to falsification.[145] To me, it seems impossible that economics could ever become a positive science, given the amount of value judgments in all of its disciplines, even econometrics.[146]

Economics is not just a task of finding and proving new facts and mechanisms. It is also a battle of ideas. The stage of battle we are experiencing right now is the so-called Keynesian resurgence. *"For three decades, Chicago position has been that Keynesian economics was nonsense that has been utterly refuted."*[147]This position has not changed, however there are now visible shifts in the perception of economics as the mainstream approaches are being challenged with new strength thanks to the economic crisis. Whether we call it a dispute between saltwater and freshwater schools economists or between neoclassical and Keynesian approaches, Paul Krugman and Joseph

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[140] Keynes, J. M. (1936). *The general theory employment, interest and money.* New York: Harcurt Brace.
[141] Logic of Scientific discovery Popper, K. R. (2002 (first published in 1934)). *The Logic of Scientific Discovery.* Routledge;
[142]Popper, K. R. (1996). *The Myth of the Framework: In Defence of Science and Rationality.* Routledge.
[143] Boland, L. A. (2003 (first edition 1982)). *The Foundation of economic Method - A Popperian Perspective.* Routledge. p. 250
[144] Lakatos, I. (1980). *The Methodology of Scientific Research Programmes.* Cambridge: Cambridge University Press
[145] Since we cannot know, what would have happened if we did not behave ethically and didn`t work harder.
[146] See McCloskey, D. (2002). *The Secret Sins of Economics.* Chicago: Prickly Paradigm Press.
[147] Krugman, P. R. (2009, 09 23). The Freshwater Backlash (Boring). *NYTimes.com* .

Stiglitz represent the leftwards-leaning and Keynesian side of this discussion.

There will no doubt be ongoing economic discussions and plurality of approaches for decades to come. This is something that is disparate with modernist scientific approaches, in which the neoclassical economics has its roots.[148] I believe that economics cannot be fully based on modernism, if only for the plurality of approaches alone. As in other social sciences, much is to be gained from the ongoing discussion itself. A social science can move forward without stating any *fact* in the Popperian sense, simply by discussing and assessing different points of view without calling any of the definite. But in order for this multiple-theory approach to be viable, some conditions have to be satisfied. In the above-mentioned article, McCloskey argues, that what economists need is to find their *rhetoric*. A platform for discussion of different set of ideas without the results being calling each other "unscientific" or just simply wrong. And I add: economists also need to find a way, how to *get rid* of models and theories at the same time. This is not contradictory. If there is a sensible discussion, there is a chance for agreement. And if there is an agreement, some ideas can be dismissed or put aside for the time being. But this multiparadigm scientific approach requires a very hard mental step: accepting that there will be very few definite answers to any question. Moreover, in order for this approach to make sense, economists need to study their history. Precious few do so, Paul Krugman and Joseph Stiglitz among them. But even they limit themselves mostly to the history of economic policy. I believe a more thorough study of history of economic thought would be appropriate in theoretical economics.[149] The perspectives provided by studies of history of economic thought can also proof to be valuable in times of crises and chances for paradigm-shifts.

[148] McCloskey, D. (1983). Rhetoric of Economics. *Journal of Economic Literature , XXI*, 481-517.

[149] Had Joseph Stiglitz carefully studied the history of economic though he could fro example avoid manifold repeating the economic evergreen: ascribing the invisible hand concept to Adam Smith. Adam Smith mentions invisible hand only twice in all of his writings (thrice if we count in "the invisible hand of Jupiter"). This concept if the work of Bernard Mandeville in his *Fable of Bees*. Adam Smith actually criticized Bernard Mandeville for reducing economic activity to private vices public benefits concept.

5 Concluding Comments

I have tried to show that there is more to the current crisis than rising unemployment and declining GDP. That there are deep underlying problems in perception of economic policy, especially in the U.S.. Markets do not work perfectly and they need to be regulated. Some see the attack on deregulatory ideologies of reagonomics as an attack on capitalism. However, both Paul Krugman and Joseph Stiglitz are *defenders* of capitalism[150], although very critical to its current form in the Western world, especially in the U.S.. They want to improve capitalism, not replace it.

Economics is at least partially normative science[151]. The issues discussed in chapter 3 have shown the importance of ethics – one of major source of human incentives – for economics. I have overviewed some aspects of the current economic crisis and I believe that it can also be translated into crisis of ethical values, best demonstrated by the unlimited greed-driven behavior on financial markets. Adam Smith, a professor of moral philosophy, considered *The Theory of Moral sentiments* as superior of his books to *An Inquiry into the Nature and Causes of the Wealth of Nations.* Maybe it is time economists, especially those concerning themselves with economic policy, immerse back into these studies. One of the most urging ethical issues for current economics should be the need for internalization of externalities. However, I do not expect this issue to be resolved anytime soon, since it has been a concern of even Adam Smith's contemporaries. Let me finish by one of my favorite externalities-related quotes from one of them: *"Just as a physician would be ill advised indeed to operate on the spleen without taking into account the unintended effects on lungs, heart and liver of his action, so a businessman must not proceed atomistically lest the unexpected spin-offs include high wages, low prices, polluted rivers and congested roads"*[152]

[150] Unlike other economists, mainly of Marxist origin, who argue that the current crisis is proving that capitalism is inherently bound to fail. For example Foster, J. B., & Magdoff, F. (2009). *Velká finanční krize - příčiny a následky.* (R. Baroš, Překl.) 2009: Nakladatelství Grimmus.
[151] If I have written a thesis on economics, simply count how many times I have used the words "should", "is supposed to", "good" etc.
[152] Quesnay, F. (2004 (originally published in 1758)). *The Economic Table*. University Press Of The Pacific.

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