István Magas

Ten Years after The Global Economic Crisis

A Retrospective Analysis

SUMMARY: The study attempts to take stock of the crisis management measures taken during the global economic crisis between 2008 and 2011, draw macroeconomic conclusions from it and identify the uncertainties and the old-yet-new risks still persisting at the end of 2018. The most important conclusion is that while both economic conditions and financial systems were able to stabilize in the most developed countries of the world economy, it cannot be claimed with full certainty that all risks that had previously led to a recession were able to be handled properly. While quantitative easing (QE) and discretionary fiscal policies in both the USA and the EU restored normalcy in the business cycle, neither productive investments nor labor or total factory productivity were able to return to the growth trends experienced before the crisis.[1]

KEYWORDS: global economic crisis, financial markets, business cycles and economic policies, quantitative easing
JEL CODES: G01, G10, G12

'Though we may not be allowed to mention it in public, we have to mention the r-word because there is now a significant probability of recession.'[2]

The quoted sentence was said at the FED's crisis management committee meeting in September 2008. They didn't know, but strongly suspected that a crisis would come. Ten years after the crisis, this sentence could be uttered today, even though circumstances are currently much better.

Ernest Hemingway's lyrical hero's telling answer to the question of how things went wrong was dramatically simple: gradually, then suddenly. This is what happened at the time of the 1929–1933 crisis to droves of big banks and businesses. A similar process played out in the American financial markets followed by the leading financial markets of the world between 2007 and 2008, when storied banking houses again found themselves on the brink of bankruptcy. At first, it was just an increasing accumulation of tension, beginning with the American mortgage market, then other leading capital and financial markets of the world followed suit. Then the amount of unsold or foreclosed real estate in the USA increased and a growing number of smaller banks and credit institutions went bankrupt. The big quake came in September of 2008, when Lehman Brothers collapsed, kicking off the crisis. The insolvency of the Lehman banking house kick-started a series of panic sell-offs on American

E-mail address: istvan.magas@uni-corvinus.hu

stock markets and became the beginning of a lasting, global economic recession. The consequences of the deepening financial crisis became increasingly serious both in the USA and in Europe, then slightly later in the Far East. A little more than a decade has passed since these dramatic events unfolded. Following the tenth anniversary of the global economic crisis, it may be worthwhile to take a retrospective look at the main string of events and especially at whether the management of the crisis can be said to have been fundamentally correct or not, whether the crisis management goals were correct and, of course, the tools used. It is even more important to examine whether the risks that arose a decade ago can arise again or if we can rest assured that there is no threat of a similarly large-scale shock of this type. Can we be confident that the new systems of assurances, special checks and modern forecasting mechanisms implemented on international financial markets can allow us to detect looming dangers far earlier and act on time? These are difficult questions that – we must set things straight right off the bat – economics and specifically the more restricted circle of international finance specialists can provide no clear and generally reassuring answers to for either politicians or investors. This seemingly pessimistic observation is understood easier if we also point out that the views assessing the 2008–2009 financial crisis and providing perspective on the subject of those responsible and of crisis management measures taken cover a fairly wide range to this day and even as the past ten years have passed, the various stances taken by different representatives of economics continue to be characterized by disagreements that are strongly contradictory, albeit significant in terms of followers.[3] The leading English-language trade magazine of the Hungarian Academy of Sciences devoted a special issue to studies taking a retrospective look at the crisis.[4] This volume also reinforces the fact that authoritative views continue to cover a wide range. Both new and old critiques analyzing Keynesianism (Tanzi, 2018) along with debates analyzing the role of financial markets and banks have not reached a resting point (Kotlikoff, 2018). But deeper, global economic and social effects can also not be given a clear interpretation (Török, Konka, 2018).

The crisis itself also became a force shaping society and politics. What's more, the drama of the financial crisis graduated to the noble position of a 'public good of world literature', providing a great topic for media and Hollywood producers alike.[5] Monumental scholarly works were also born, such as English historian *Adam Tooze's* monography that offers a thorough and deep analysis of the dramatic events of 2008, in his new book released in the summer of 2018. The historian, known for his previous works on the events of the interwar period, brings to life the series of events of the world economic crisis in a heavy volume. In the very first part of the book, he shrewdly points out successful crisis management measures, the fact that a very strong financial easing represented the main response of central bank policies properly performing 'lender of last resort' functions. Tooze is also correct in pointing out that these lastingly eased monetary conditions were also coupled with fiscal, i.e. central budgetary stimulation, meaning that there was significant mitigation on the government expenditure side. This means that crisis management had to be based on easing on both sides of the intervention controlled by the state.

The evaluation of these easing measures from the standpoint of the strength and significance of economic intervention is important, because it has once again become obvious that the self-regulatory ability of the economy is insufficient. The last resort was a quick reaction by the bank of issue, and it was only by 'creating' new money and by then 'pumping it'

could the – almost full – loss of confidence in the suddenly frozen demand side be stopped along with a larger-scale and long-lasting banking panic mimicking the years 1929–33. After the fact, it is clear and it is a very important lesson that in the developed world, by default, it was not restrictive budgetary measures, but rather easing measures that represented the most successful escape route [for more details, see Magas (2016)]. To wit, this combined easing guaranteed that a lasting low-demand state in most developed countries didn't turn into a long-lasting, serious state of recession. As such, ex post facto confirmation of the easing measures according to mainstream macroeconomics can be deemed correct insofar as they showed anticyclical characteristics.[6] As a result, this traditional view, which had already worked earlier, did not need to be reinterpreted by economists and the old anticyclical recipe could once again take center stage, favoring saving in the budget in the run-up period, i.e. spending less; and taking opposing measures in the low-demand period, increasing government spending, even at the cost of creating significant new debt. In the Anglo-Saxon tradition, there is a saying that goes 'you need to fix the roof when the sun is shining'. In the language of budgetary policy, this translates to the government spending more in times of crisis and saving to create reserves in prosperous periods, when the economy is 'running high'. An ex post facto approval of anticyclical state intervention is, of course, not equivalent to stating that all government measures were right. The lack of specific legal facts that could have been ascertained was visible in the sanctions meted out, many escaped punishment. However, it is now possible to determine with fairly high accuracy which big bank represented a so-called systemic risk at the time of the crisis, i.e. whose bailing-out could have appeared as justified in order to protect the entire banking system. Therefore, when we speak of macroprudential measures and bailouts – i.e. those that serve the safety of the entire system – we must always think of effectively large financial institutions (e.g. Wachovia, AIG, Bear Stearns). The government program, TARP (Troubled Asset Relief Program), which temporarily took control of the assets of troubled financial companies worked well as a stabilizer, using a tolerable amount of taxpayer money.

Financial supervisory authorities also awoke late in the European Union, in 2009, large European banks needed to be recapitalized and not in the manner that had been usual up to that point, but with freshly created American funding by the FED: Deutsche Bank and BNP Paribas, for instance, had a significant level of exposure on the American mortgage market. Later, this was compounded by the 'internally originated' financial crisis within the Eurozone that was the shakeup – and partial collapse – of the cheap euro loans Greece, Ireland, Italy and to a lesser extent Portugal and Spain had taken out – in part to cover public debt. In 2011–2012, in the Eurozone, it was the tax payers of net contributor countries who had to dig deep into their pockets to balloon the so-called special stability funds and make gigantic loans by the IMF, ECB and the European Commission available again, mainly to settle the Greek financial situation. But this is also a crisis of the past, by August 2018, Greece had straightened its affairs out to such an extent that it was able to appear on the private credit market, i.e. access funding on the international bond markets.

CRISIS MEASURES IN THE USA – LOOKING BACK

'Of course, we knew how difficult it is for economists to peer into the future. Dave Stockton, a fine forecaster of long experience, with an equally

fine—and dark—sense of humor, reminded us what a messy business it was.' – former chair of the FED *Ben Bernanke* said in his recollections on the pages of his book about the difficult months of crisis management.[7]

'I thought I would invite you to don your hair nets and white butcher smocks and join me for a tour of the sausage factory.'[8] This is the sentence David Stockton kicked off the crisis management researcher's extraordinary meeting with, organized to put FED leadership on notice. He intended to draw attention to the fact that researchers and decision-makers were stumbling around in the dark despite predictability and the expanded possibilities of modeling (DCGE, i.e. Dynamic Computable General Equilibrium). This fact became even more obvious when it came to less developed countries.[9]

Today, it is entirely clear to us and, reading Bernanke's recollections, we can believe that even the most state-of-the-art models describing the functioning of the economy could not have taken into account the duration and extent of the effects developing in the wake of the financial markets' loss of stability. One reason for this is that financial crises – on such a destructive scale – rarely present and, what's more, they always differ in nature. This is how it came to be that in 2007, in these difficult hours, the FED's crisis analysis team had to look to other countries' example, namely that of Sweden and Japan, for the experts of the FED to be able to provide a semblance of an estimation as to the extent of the effects they could expect. Earlier, following the financial turbulence arising in the wake of the 1998 events in Russia, the FED's team of analysts had significantly underestimated the USA's growth forecasts, because it had believed that the effects of the Russian and Asian financial crisis would have a significant impact on the performance of the American economy. However, they were fundamentally wrong in their estimations in that case. *'I think it's fair to say that part of our mistake in 1998 was a failure to appreciate just how strong the U.S. economy was when we entered that period.'*[10] – D. Stockton himself said, illustrating the toughness of the matter.

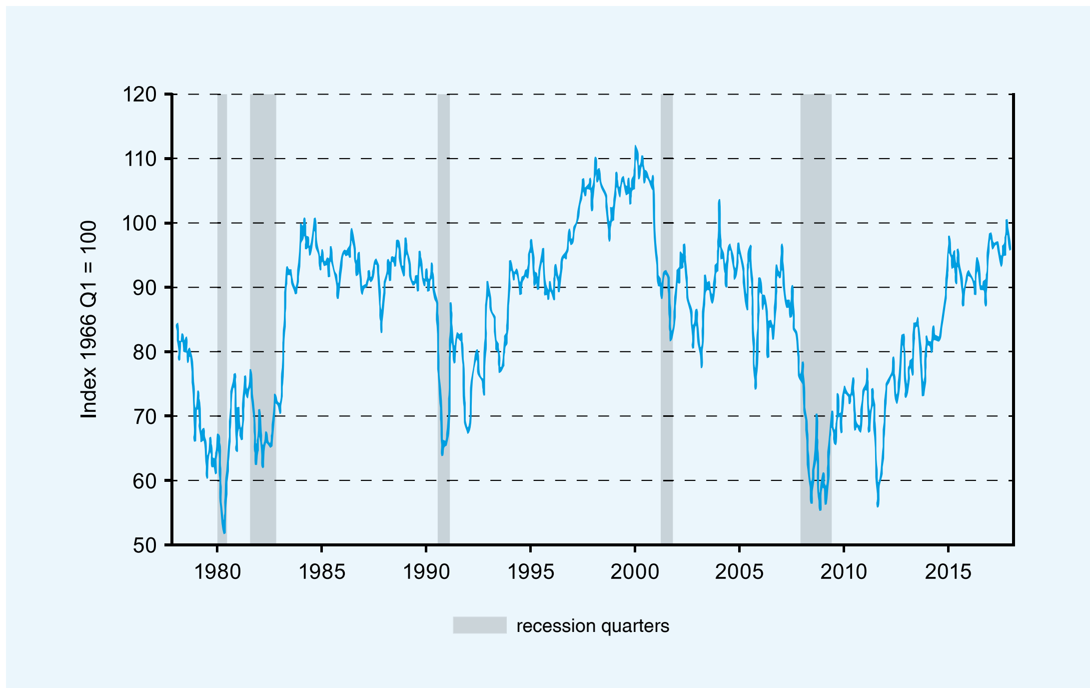
The lessons drawn from this mistake caused some level of optimism: in the Fall of 2007, labor market data was slightly improving, converging downwards, unemployment numbers were at 4.6 per cent. Since troubling signs seemingly manifested themselves on the mortgage markets instead of the bond and stock markets, like a decade previous, initially, FED analysts didn't see much reason to be alarmed and neither did the Federal Open Market Committee (FOMC). Some were more cautious in their wording regarding the looming difficulties, such as *Richard Mishkin*, who also warned the Committee behind closed doors – in Bernanke's recollection of the situation, Mishkin's remark was sharp and appeared to signal danger: *'Though we may not be allowed to mention it in public, we have to mention the r-word because there is now a significant probability of recession.'*[11] The r-word mentioned in the quote is – naturally – recession (referring to a drop in economic growth, a downturn).

If, as a subjective, yet important, but non-exclusive measure of the success of crisis management in terms of judging the current economic situation and its future chances, we want take a look at how a typical American consumer on an average income perceived the effects the fluctuations of the economy had on them, we can readily rely on the painstakingly edited and well-maintained consumer confidence index by the University of Michigan, which also enjoys popularity with FED researchers. It is the evolution of this indicator that is shown in *Figure 1*, which, as such, records a certain confidence index over the past nearly four decades.

Figure 1 clearly shows that the measured data set of consumer confidence rarely reached the 'golden age' base level of the mid-1960s: it

Figure 1

CONSUMER CONFIDENCE INDEX OF THE UNIVERSITY OF MICHIGAN (USA), 1980–2018 (1966 Q1 = 100)



Note: The columns with a grey shade show recession quarters

Source: Univ. of Michigan, Federal Reserve Economic Reserach, https://fred.stlouisfed.org/

did so in the first period of *R. Reagan's* presidency and later, during the years of elation of the stock market soar of dot.com companies between 1995 and 2000, and for a short period during the critical 2004 election year, fraught with acts of war; following this, the indicator was only able to approach the base level. The evolution of consumer confidence was characterized by a strange unpredictability: in the figure, it took on an 'irregular' shape in the cycles between the grey columns, i.e. in the individual recession and recovery periods, whose length varied to begin with, making it difficult to forecast business cycles in the first place. In the four decades observed, in the recovery periods following downturns, the confidence scale of consumers was characterized by different trends each time: at the end of the 70s, it went down; following 1980, there is some increase, then until 1988, there is a 'pleasant stagnation' between 90 and 100; globalization, the IT revolution and the dot.com wave brought with it a positive trend, a clear upward trend in consumers' 'vision of confidence'. The exact opposite happened in the 2000s. Following the 2008 crisis, starting from a trough, the confidence index was trending upwards again, drawing close to 100 by the time of *Trump's* presidency. The average of the four decades is a confidence index level of roughly 80. Based on this, we can hardly speak of a recipe that has clearly worked in enabling and maintaining recovery – at least if we look at the 'all powerful' consumer index perception.

Longer-term prediction of confidence indices is particularly difficult, the scholarly foun-

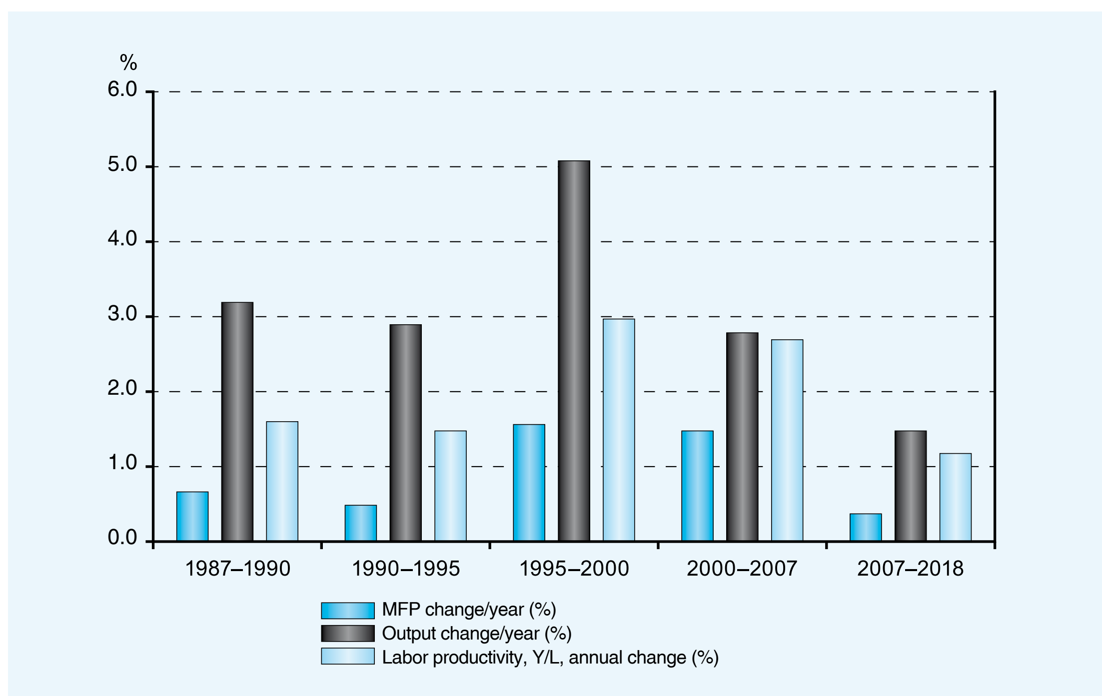
dation of strict and enduring parametric approaches is still fairly primitive even in the view of the world's most developed (FED) research apparatuses. What's also food for thought is that the American growth and factor income statistics of the past 30 years have also been characterized by a milder, albeit multifactor degree of uncertainty in terms of measurements and thereby prediction. The following section is devoted to briefly presenting these statistics.

If we examine the three-decade period going from 1987 to 2018 from the point of view of the dynamics characterizing economic growth and productivity, we can make the following assertions based on *Figure 2.*

➤The periods between 1987 and 1990, and 1990 and 1991 were characterized by significant economic growth with an annual average of 3.2 and 2.9 per cent respectively. In the period between 1995 and 2000, the economy kicked into high gear and labor productivity also reached record levels. In the period between 2000 and 2007, a very significant drop occurred in the average annual dynamics of both variables and between 2007 and 2018, the convalescent period was characterized by no more than 1.8 per cent of growth per annum. It is true that this average was dramatically decreased by the 2008–2009 crisis, where a drop of –0.5 and –4 per cent, i.e. significant loss of output, occurred. It is apparent that after 2001, both labor productivity's and full factor productivity's growth levels had lost much of the momentum that had characterized them in decades previous and a larger MFP pull creating the foundation of a long-term annual growth of 3 per cent still seems evasive. The CBO (Congressional Budget Office) estimated

Figure 2

OUTPUT, LABOR AND FULL FACTOR PRODUCTIVITY IN THE AMERICAN ECONOMY 1987–2018 (ANNUAL CHANGE AS A PERCENTAGE)



Source: Own edited based on the Bureau of Labor Statistics, BLS, March 2018

that reversing the negative output aspects of unfavorable demographic processes would require an annual MFP growth of at least 2.3 per cent in the long run for an average of at least 10 years (by the way, the CBO predicts 3.3 per cent of GDP growth for 2018 and 2.4 per cent for 2019).[12] However, it will be very difficult to achieve this goal, as there hasn't been a single 10-year period in the USA's economy since 1949 where this MFP average was met. Furthermore, it is remarkable that in the entire OECD group of countries, a general slowdown of productivity has become typical: in the period between 2005 and 2018, the output growth per hour worked was 0.9 per cent, while in the USA, it was 1 per cent. Therefore, we can hardly hope that this difference should grow lastingly and to a larger extent in the USA's favor even as far as 5 to 10 years down the line.

➤If we consider the little over two decades between 1995 and 2018 a single period, the trend is a marked decrease in growth. The reasons for the decrease are manifold, the most important one being the slowdown of labor productivity and the particularly unfavorable development of demographic factors. The missing output growth can primarily be attributed to these two factors, which, by the way, has been the basic presumption of the neoclassical growth model for the past nearly half century. In this sense, then, there is nothing new under the sun when it comes to the 'variability' of American economic growth processes, which is confirmed, among others, by *Dismuke* (2015).

THE BUSINESS CYCLE FOLLOWING THE CRISIS IN THE EU

The management of the 2010–11 financial crisis – although, it is true, with some delay – also qualifies, on the whole, as a success in the European Union.

In the Eurozone as well, the business cycle that has brought with it an acceptable amount of lasting growth and which many have already treated as dead and buried has now entered its fifth year (although, it is true, signs of a slowdown appeared at the end of 2018). While in the group of countries that use the euro as their currency, the extent of the growth is expected to decrease to some degree in the two to three years ahead, most forecasts remain hopeful, because the world economy seems to be able to maintain an economic cycle that is longer compared to previous ones, but still good. While a relatively relaxed monetary environment will also continue for a while, we can already see a stricter credit supply structure operating with interest rates slowly increased by commercial banks. Investors are now encountering more expensive, longer-term loans, which have more of a cool-down rather than a warm-up effect when it comes to the European and global business cycle's expected temperature. A normal interest environment will eventually return, that is, central bank interest rates and the banking system will seek to provide positive effective interests to savers.

In the Eurozone, economic growth is expected to reach 2.2 per cent in 2018 and 1.9 to 2.1 per cent in 2019. This is the forecast provided by the October 2018 issue of the OECD's World Economic Outlook, which can be considered official.[13] Such a growth rate in the EU, in comparison with previous world economic crisis situations, appears encouraging. What is most reassuring is that – with the exception of France and Spain – long-term youth unemployment indices have also improved, which at the time of the 2010–2013 Eurozone crisis were at critically high levels. These numbers were more favorable in the fall of 2018, dropping to about a third of the level of the crisis years. As such, the economic situation of the Eurozone in the second half of

2018 appears favorable, although some slowdown is likely. The overall picture also qualifies as good, at least compared to the predictions that came out during the 2011–2013 Eurozone crisis, outlining a collapse and a disaster. Furthermore, another positive aspect is that despite Brexit remaining unresolved for want of an approval by parliament in spite of an official EU-UK agreement and despite the uncertainties of the features of a potential European fiscal union, the euro's value has reached its much stronger pre-crisis levels, at least when paired with the US dollar and the British pound. An encouraging development is that the Eurozone's weakest link, Greece – it would appear – has been able to return on the private market to channels of public debt financing hitherto closed to it, after the IMF, the European Central Bank and the European Commission (the troika) declared the prospective condition of Greece's public finances 'healed'. The most severe, large-scale debt relief measures predicted by international financial markets did not take place, nor did a significant write-off of Greece's public debt (amounting to over 180 per cent of the GDP currently), only some easing with extended deadlines and a reduction of interest burdens. While this is decidedly a positive outcome, it is likely not a final, i.e. sustainably manageable state of affairs.

If we count the overall performance of national economies in the last normal year preceding the world economic crisis, 2007, as 100, the Eurozone, by the end of October 2018, surpassed the pre-crisis level by 8 per cent, reaching 108. Within the zone, Germany reached 114 per cent, France 109 and Spain 105. Of course, the average was strongly decreased by consistently 'ailing' countries like Italy, which still only reached 96 per cent by the end of 2018, meaning a loss of 4 per cent compared to its performance in 2007 and Greece, which, trending downwards, was only able to 'stop' at 76 per cent, meaning a loss of nearly one quarter of its pre-crisis GDP.

Overall, it can be said that the Eurozone performed well by its own standards following the crisis. At the same time, the statistics advise caution, telling us that investment in physical capital in the Eurozone has still not been able to recover to the level recorded in the last 'normal' year preceding the crisis! This indicator – presumably – will only catch up 'with itself' in 2019, i.e. reach its 2007 level. The significant lagging behind and the investment deficit is best explained by the fact that in the wake of so-called quantitative easing – the ECB pumping 'oxygen' into the European economy's bloodstream using freshly created money via its continuous acquisition of government bonds and secondary bond market acquisitions – the new funds went mostly towards acquiring other securities. This meant that these funds rarely launched specifically new, greenfield investment projects or other investments that effectively created jobs. From an economic perspective, while quantitative easing helped maintain economic processes, when the lenders change, but the loans remain the same or even expand, the situation can barely improve, the output gap (the difference between potential and effective output) barely grows narrower. In the most recent investment cycle following the crisis, a series of quantitative easing measures in the Eurozone were unable to achieve any real breakthrough. Year to year, most states are considered net issuers of debt, because they cannot collect enough tax revenue to cover the needs of the spending required by the public finances, therefore, the traditional crowding out effect also prevails on the Eurozone's credit market. This is one of the reasons why no real investment boom, i.e. not limited to asset markets, creating value and jobs, has been able to unfold in the Eurozone. Beyond crowding out, the causes and explanations of a real investment situation

that remains unfavorable remain numerous, which the present analysis cannot accommodate. An excellent overview of the matter is provided by *Farkas* (2018), presenting leading European models of capitalism. One thing is certain: a sustainable return to the 'normal state' of the economy cannot be delayed in the Eurozone either. What's more, the state of quantitative easing cannot be made sustainable or 'infinite', because in such an environment, all of the most important actors (households, enterprises, the banking system and even the government) prefer to 'wait out' instead of weaving long-term, highly capital-intensive plans. Defining actors have yet to invest energy, money and working capital in long-term projects with long-term returns. Therefore – sadly – we cannot yet see the outlines of general business growth and an investment boom based in sustainable confidence.[14]

THE STATE OF THE WORLD ECONOMY AT THE END OF 2018

In light of theories

For macroeconomists, the fact that there is – like before and after 2007, including today – widespread debate about the macroeconomic situational picture considered correct and the desirable direction of economic policy measures in the developed world certainly gives food for thought.[15] To this day, major schools of thoughts in economics disagree on these important issues. There still remain many people on categorically opposite sides of the argument when it comes to state intervention, the extent of central bank policies, their direction, the lack thereof and especially desirable selectivity. Many think that there is no obstacle to the funding of further continuous government deficits.[16] According to others – [IMF, (2015), Blanchard, Summers, (2017)] – the current debt levels cannot be increased any further without creating further tension. Views on how sustainable quantitative easing (QE) by central banks is also remain similarly divided.[17] The point of this easing is to keep pumping fresh money into the capital and financial markets by continuously acquiring securities, under the pretense that at least on the lending side, there is no limit to the emergence of productive investments, thereby maintaining the level of economic activity. According to yet others (Summers, 2016), precocious tightening of financial policies can throttle a longer-term blossoming of the business cycle that has emerged and the sustainable maintenance of a good or mid-level potential output level. The USA started raising its interest rates as early as the winter of 2017, the FED, which acts as the central bank, kept increasing the deposit and lending interest rates (by another 25 basis points in December 2018, bringing the reference rate up to 2.2 per cent). The European Central Bank – with a four to six-month delay compared to the USA – is doing the same. By the middle of December 2018, it had started gradually rescinding QE, i.e. its acquisitions of financial assets enacted as part of quantitative easing, thereby reducing the rate of outflow of the liquidity surplus. These restrictive measures have already impacted the Eurozone's banking systems, with banks' retail and investment loans starting to become more expensive. Thus, the USA and Europe are heading in the same direction, albeit at slightly different paces, in a slow, but clear series of tightening measures of monetary policy that started a year ago now. At the same time, the kind of crisis easing that has been applied by the central bank for five years now and that has been characterized by quantitative easing will most likely cease by the middle of 2019. The good news is that inflation is starting to return to a level (2.5 to 3 per cent) which in

the NAIRU[18] interpretation is still favorable to maintaining a positive economic context and is desirable from the point of view of monetary regulation. This level can still be controlled if fiscal and monetary measures are harmonized, i.e. there isn't a series of mutually counterproductive measures developing. This moderate degree of price increase is such that it helps those tools of economic policy that can best promote the economy and employment. The area of economic process management that relates to handling and influencing business cycles seems to be returning to its 'normal' pre-2008 state, which is decidedly a welcome development.

However, when seeing the theoretical, statistical and forecasting uncertainties, one may ask whether we can say, ten years after the financial crisis began, that the processes of the economy in general – and of capital and financial markets in particular – have returned to normalcy, that government institutions of regulation and control as well as confidence in these have returned to desirable levels? Or is it still possible for confidence to be lost to such an extent that it could lead to another economic cliff and the emergence of a financial crisis? We cannot affirm the advent of 'shockproof' normalization with full certainty, i.e. we can hardly speak of a return to order that cannot be undone in any and all regards. Banking systems – both in the USA and on the European continent – are doing better again, capital adequacy ratios are good again and abundant funds are still available to leading banks in the wake of QE (quantitative easing). What's more, in the USA, the stock market value of banks has returned to pre-crisis levels and in Europe only Italy is ailing. Big banks have changed their investment policies and are now tying their premiums to a much larger extent to long-term achievements. However, the latter (premiums) are still extremely high: for instance, in 2017–2018, in an average-capital investment bank, the bonus was around 184,000 dollars per year, which is more than double the average American salary. However, all dangers have not dissipated: supervisory criticism of the way banking systems operate – such as secret price agreement, price fixing limiting competition, money laundering and mis-selling – sadly all continue to be frequently uncovered as undesirable practices identified by regulatory bodies. The situation is also somewhat deceiving, since if we only look at normalization developments and the renewed confidence in bank stocks, it might appear that someone who went to sleep in 2006 and woke up today could practically think that nothing has changed since they dozed off. With some exaggeration, there are no specific signs of the shock and of a larger crisis at the end of 2018 and no new collapse appears to be on the horizon. But caution is warranted: December 2018 didn't bring a Santa Claus rally, it brought a significant downward correction. If we look at leading American stock markets, including DOW JONES and NASDAQ along with the defining indices of the S&P 500, we see that these are 8 to 12 per cent behind their pre-crisis peaks! In developed financial markets, from a historic perspective, reference interest rates remain quite low (0.5 to 2.25 per cent). In the case of good debtors, the price of taking out loans is still fairly favorable both to households and to enterprises.

In the most developed half of the world, governments can sell fresh debt fairly cheaply with low yields on issue and take on new loans (the USA, Canada and Germany have been able to sell 10-year bonds in the 3.5 to 0.5 interval) in December 2018 even though the debt levels of the world economy haven't significantly decreased. The global bundled gross debt level was equivalent to 272 per cent of, or almost three times, the world GDP in 2017. This remains sobering, as a latent dan-

ger. The largest sovereign debtors of the world economy (the USA, Japan, France, Canada, China, Italy, Spain, India and Mexico) were all able to refinance their expiring debts with fairly good interest and mark-up conditions. As a result, there appears to be no significant threat of them not being able to finance their budgetary deficits again and again. Even Russia and Turkey, which used to struggle with serious international payment difficulties, managed to sell 10-year foreign currency bonds in the Fall of 2018, with an 8.13 per cent yield in Russia's case, and with what is in the context of today's low interest and yield environment a brutally high, nearly 18 per cent yield in Turkey's case. To protect the Turkish lira, short-term interest rates were raised to 24 per cent! There are no signs of a debt crisis in the world economy at the end of 2018. Of course, this does not mean that the threat of a debt crisis has completely disappeared, it just means that no specific hotspot or potentially global source of tension from which a financial crisis could emerge is visible at this time, with the exception of maybe Italy. The Eurozone has also become stronger.

New, worrisome signs

There is, however, an old-yet-new element, a significant negative change in terms of the successfulness of known remedies of economic policy: a significant change has arisen in the public opinion of public policies, the extent to which the average citizen agrees with the options provided by national economic policies, their thoroughly re-evaluated protectionist goals and the approach of national and international economic processes and institutions that is at odds with national interests. In the world's first market economy, the USA, but also, not too long ago, in the UK led by *Tony Blair* at the time – and in the conservative party today – it is a commonly held view that the market can at the very least distribute financial resources efficiently, pipelining available financial assets from savers to investors. However, the 2008 financial crisis – there is no denying this – really did take its toll on the faith and confidence in the strength of the financial markets, which hadn't been total to begin with. We can also not disregard another circumstance: middle-of-the-road Democratic and Labour governments – which had automatically supported the previous principle – are no longer in power; furthermore, an increasing number of voters have 'come to like' extremist views: from the far-left to the strongly nationalist far-right, policies attacking the market and the financial systems in place in general have garnered increasing support. This is a worrisome development.

Even the defining figures of the current, fundamentally pro-market American Republic party had to come to terms with the American government using strongly protectionist measures to try and protect the presumed or real interests of the country against China, Canada and the European Union. This is done despite scholarly arguments to the contrary, since the defining American international school of economics accepted over a century and a half ago the basic international trading tenet that international trade creates net prosperity (i.e. the overall accounting in terms of consumer and producer surplus and government revenue – all partners considered, including at the level of the world economy – is measurably positive). It is true, however, that the trading benefits obtained are not distributed evenly.[19] Now, many politicians no longer accept this classical economic argument pointing to a strongly stimulant effect leading to prosperity. What's more, the American president, *Donald Trump* and his administration are attempting to present the benefits arising from international trade as a

zero-sum game where one side's gain is also the other side's loss. This has become the official doctrine of the White House. However, this simplifying stance is barely tenable and is difficult for science to accept, since trade isn't a process analogous with zero-sum games (one side's gain cannot clearly be identified with another side's loss).

The USA has unilaterally imposed tariffs in a series of industries it deemed sensitive, especially as regards steel and aluminum industry products. But it imposed unfriendly, protectionist tariffs not only on the large emerging economy of the Far East, but also on old trading partners (Canada, EU). In terms of value and strategic value, the latter are less cutting and do not yet threaten the outbreak of a trade war. At the same time, they significantly limit extensive, mutually beneficial trade relationships, even if the White House is presenting these as the 'nation's' economic interests. Efforts to create a new international trading world order – where we can see peculiar versions of asserting American interests – in most cases go counter to scientific consensus: to wit, imposing tariffs on mass-produced products manufactured with tried and tested technologies demonstrably decreases prosperity – in the strictly microeconomic sense of the term.[20] While this isn't trivial to grasp quantitatively, but the end result and its direction remain unchanged: tariffs decrease the degree of prosperity that can be achieved in a trading partnership where one party might be considerably more developed than the other. It can also readily be accepted that increasing tariffs in Chinese-American relations has a negative impact. But protectionist buzzwords and the idea of defending the national economy had a strong effect on voters in both the USA and in the UK in 2016 at the time of the Brexit referendum. This effect was non-negligible, just like the alarming spread of the idea of 'illiberal capitalism' (for more on this, see the exhaustive arguments of Csaba, 2018). Fortunately, at the G20 summit in December 2018, threats of tariff wars had subsided considerably.

A worrisome and statistically substantiated fact, however, did confirm the concerns connected to the lack of the usual dynamics in international trade that had typified the previous half century: indeed, following the 2008–2009 crisis, looking at the average growth rate of the world GDP compared to the growth rate of world trade, one could observe that the annual growth of international trade could no longer sustainably outstrip the annual rate of GDP growth. Therefore, it is true that a trend that had been prevalent in the six decades following WWII was broken. The loss of dynamism in the growth of international trade seemed to have been slated to occur even without tariffs. However, the mechanisms describing and explaining these mechanisms aren't entirely clear yet and have yet to be submitted to precise scholarly analysis. But one thing can be stated for sure: public opinion in developed countries has grown increasingly hostile to globalization and foreign economic influence. What's more, there has been a perceptible change of tone and a mentality strongly prioritizing national interests has become prevalent. Globalization seems to be experiencing repeated backswings, the exclusivity of national interests and a general protectionist economic policy or one that opposes free trade in important industries gaining support are causes for concern. If this trend becomes lasting in developed industrialized countries – or, more precisely, in developed 'service-based' countries like the USA where more than 70 per cent of the GDP is provided by the service sector – well, that carries with it some serious dangers.

The crux of the danger can be described thus.

In a new global economic shock like the 2008–2009 crisis, the international financial

solidarity and the strong international cooperation, required for recovery, that had characterized the easing of the tensions born out of the mortgage crisis and the immediate compliance with requests for help by the countries affected may not be possible in view of current conflicts and public opinion. Yet recovering from the crisis was absolutely contingent on recognizing that international cooperation by developed countries acting together financially and following common interests to attempt to stimulate and boost the global recovery process was a necessity.

Accounting for the lessons learnt from the crisis ten years ago, it is worthwhile to yet again recall and consider the retrospective message of the historian referenced previously, *Tooze,* that he intended for the present. In the final passages of his book (Tooze, 2018), he compared the current state of affairs to the situation in 1914. The way he puts it: back then, the world sleepwalked into the conflict of the world war. Tooze makes a cautious, but all the more convincing case that the interwar period is a dangerous parallel for understanding today's situation, insofar as following the armistice of WWI, the tensions that had triggered the war were not resolved, only throttled, which resulted in them reigniting after two decades. At the time, like today, international tensions did not fundamentally manifest as economic conflicts of interest. These could be regarded as secondary. But slogans and political distortion intimate some dangerous similarities to the present. He elaborates by stating that in a reassuring conflict resolution following WWII, the changes effectively required a new economic world order. The order born in Bretton Woods stays with us to this day, having lent overall stability to the world economy, which – it is true – can be characterized by the dominance of developed industrialized states, the USA and victorious Western powers. At the same time, it considered rules-based operations one of its basic tenets, at least as far as contentious issues in international financial trading processes were concerned. It is of this rules-based operation that the WTO (World Trade Organization), the IMF (International Monetary Fund) and the central banks of leading industrialized powers became the key institutions. Of these institutions – especially as a result of American tariff measures and the immediate countermeasures to them – the WTO seems to be the institutions that is weakening the most today, at least as far as the odds of rules-based resolutions – within the WTO framework – in case of conflict are concerned. The other institutions seem to be standing on solid foundations and are functioning well. More than that, due to their successful operating principles, goals and structure, they have found real competitors, for instance the Asian Bank for Reconstruction and Development (ABRD), which intends to operate with goals and constructions similar to the well-known Washington-based institution of the 'old economic world order' (the IBRD).

SUMMARY – CONCLUSIONS

Ten years after the crisis, we may be able to provide a more deliberate and accurate analysis of events. What have we been able to learn if we take a step back? Many questions have been clarified, although reassuring answers cannot be provided to all of the questions that have arisen. The loss of output in the course of the 2008–2009 world economic crisis was significant in the most developed countries, including both the USA and Europe. An important new element is that the countries with significant downturns included not only those where the rapid loss of confidence was accompanied by a banking crisis, but also many developed

countries (e.g. the UK, Canada), where the stability of the financial system hadn't otherwise been damaged. While both the USA and the EU have made up for the loss of output, significantly exceeding pre-crisis output levels (by 4 to 8 per cent), negative side effects of the crisis remain, resulting in a large-scale slowdown and delay of new, productive investments (i.e. those where the investment doesn't take the shape of portfolio swaps translating to a reorganization of financial assets). In addition, another negative trend has emerged, which at this time is still relatively difficult to interpret, but which appears lasting, which is the slowdown of productivity (Y/L – output over labor input) and of so-called TFP (Total Factor Productivity) (in practical terms, this is the output-growth effect of technological progress). While this slowdown appears clearly in statistics, macroeconomics has yet to provide a satisfying explanation for it.

As a positive development from the point of view of macroeconomics, the general crisis management process, which saw the political force and legitimacy of so-called discretionary fiscal policies confirmed in the most developed countries affected by the crisis, can be viewed as an acknowledgment of previously exposed tenets (Blanchard, Summers, 2017). The main point of successful crisis management practices is that they strengthen the legitimacy of anticyclical intervention, i.e. the need for the state to spend more in a time of contraction and loss of output, thereby boosting an overall demand that is lagging behind. At the same time – and this is another rule that needs to be observed strictly – in times of prosperity, when the economy has recovered to normal levels of growth and can thus generate more revenue (taxes) for the government, public spending needs to be reined in and accumulated new debts need to start being reduced. The latter is a far more difficult operation, because following a period of financial abundance for the state and the central bank, it's more difficult to have voters accept budgetary austerity on the sole grounds that this is the correct way to handle a crisis fiscally.[21] A strong scientific confirmation of this observation is provided by high-level star authors of macroeconomics, including *Blinder* (2013), *Blanchard and Summers*, (2017) along with *Furman* (2018).

Another lasting and global lesson to be drawn from the handling of the world economic crisis is that the merging of international economic cycles has presumably become a lasting characteristic of interventions easing/preventing output losses. There is no disregarding the fact that the significant public spending and lending stimulus in the Chinese economy between 2008 and 2011 provided significant assistance in maintaining the international economic cycle and world economy at a certain level. As has been ascertained by the experts of the International Monetary Fund with proper objectivity (IMF, 2014), the Chinese stimulus arrived just in time to reduce the loss of output. During the difficult years of the crisis (2008–2011), the IMF itself paid out a total of SDR 420 billion, or roughly USD 620 billion to member states, of which roughly one third was used specifically for damage mitigation, for immediate short-term relief. An important new development is that strengthening banking regulations (making them stricter) enabled stabilizing a banking system that had grown unstable.

Overall, the most recent world economic crisis proved a previous public financial tenet in that a more favorable fiscal situation (equilibrium) resulted in a more favorable crisis process, guaranteeing a smaller contraction and loss of output. It can also be said with a high degree of probability that in the future, the rule books of public financial bailouts will contain entirely different and stricter terms

and conditions when it comes to distributing bailouts and that private institutions would not be entitled to receiving immediate assistance.

While in the winter of 2018–2019, in a situation antithetical to international economic cooperation, there is a fair amount of danger, there is still no certainty as to when the next world economic shock will occur nor an estimate of how big of a quake it will be. The future is not predictable, especially so in the world economy. But preventive mechanisms must be on stand-by so that they can be applied immediately if necessary.

Notes

[1] The author is thankful for the anonymous remarks and suggestions concerning the original manuscript and has taken them into consideration.

[2] Bernanke, B. S. (2017; 164)

[3] For a more detailed discussion of this, see: Csaba (2009), Mellár (2015), Summers (2016), Bernanke (2017), and Jacobs and Mazzucato (2018).

[4] Acta Oeconomica Vol 68, Special Issue 2, 2018

[5] A series of potentially best-selling works were born, such as Ross Sorkin's book called Too Big to Fail (also made into a movie) or Michael Lewis' The Big Short, which was turned into an Oscar-winning movie, or another Oscar-winning movie, Inside Job, which exposed the 'sinful' measures taken by American financial service providers in the manner of a documentary. At the same time, a play about the history of the Lehman Brothers banking house discussing the events of the 2008–2009 crisis premiered at the London National Theatre, and it would play to a full house for years to come.

[6] For a more detailed discussion of this, see: Kelton (2018).

[7] Bernanke, B. S. op.cit. 163

[8] Bernanke, B. S. op.cit. 163

[9] For a more detailed discussion of this, see Magas (2009).

[10] Bernanke, B.S. op.cit. 164

[11] Bernanke, B.S. op.cit. 164

[12] CBO (2018). The Budget and Economic Outlook 2018 to 2028. April 9, 2018 https://www.cbo.gov/system/files?file=115th-congress-2017-2018/reports/53651-outlook.pdf

[13] WEO, October 2018: https://blogs.imf.org/2018/10/03/lasting-effects-the-global-economic-recovery-10-years-after-the-crisis

[14] This is confirmed by Griffith-Jones, S., Cozzi, G.: Investment-led growth: a solution to the European crisis. In: Jacobs, Mazzucato (ed.), (2018). pp. 205–228

[15] For a great overview of these: Blinder (2013), Mellár (2015) and Stiglitz (2017).

[16] For an excellent summary of these: Furman (2018) and modern monetary theory in light of economic policy [Wray, Nersisyan (2018), pp. 83–114].

[17] For a detailed discussion of this, see: Bod (2018) who provides an exhaustive analysis of the changes in the international financial environment along with Kollarik, Szalai (2017).

[18] NAIRU: Non-accelerating Inflation Rate of Unemployment.

[19] Pugel (2015) and Krueger (2018)

[20] Pugel (2015) and Kruegel (2018)

[21] For a detailed discussion of this, see: Kelton (2018).

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