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Monetary policy, the “Great Macrofinancial Volatility” and the response of monetary theory in the first quarter of the 21st century

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Introductory remarks for the panel discussion *Europe at a crossroads – current challenges for economic and monetary developments in Europe*

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I am delighted to return to the faculty where I spent the first and formative years of my career. It was here that I learned and later propagated the ideas of the Ostrava school of monetary economics. Today, I will focus on certain aspects of macroeconomics, monetary policy and monetary theory in the first quarter century of the 21st century – a period marked by groundbreaking events. This period, for better or worse, will come to an end next year.

The Great Macrofinancial Volatility against a backdrop of accommodative monetary policy

I joined the Faculty of Economics here as an assistant in late 1990. A decade later, at the start of the 21st century, I joined the Bank Board of the Czech National Bank. At the time, the world was preoccupied with the bursting of the dot.com bubble. However, a much more significant event, from our perspective, was to happen a few months later. On 11 September 2001, I was attending a meeting in Ostrava with the heads of the Czech National Bank’s regional branches. I remember that afternoon I visited the faculty to meet with the dean, and it was there, for the first time, that I saw the images of the attack on the World Trade Center on television. It was immediately evident that this was a historic event, but naturally I was unable to grasp its full implications for the global economy and geopolitics. Those implications, as we now know, were far-reaching.

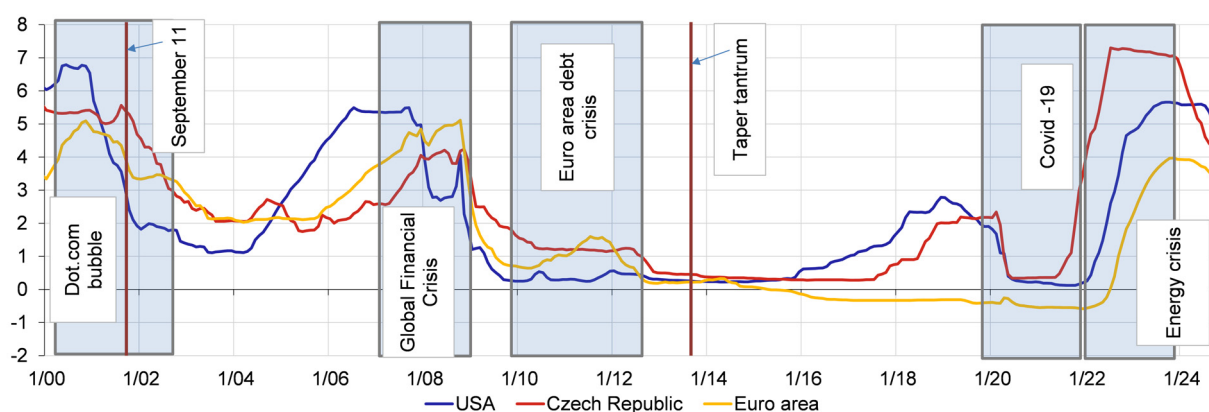
The events of 11 September 2001 had a profound impact on the monetary policies of Western central banks. Unfortunately, they came at a time when the US economy and some European countries were heading into a recession. On its own, the recession would probably not have been particularly severe. But combined with a geopolitical shock and the aftermath



of the bursting of the dot-com bubble, there were fears it would deepen and spread. Another significant factor was the appointment of Ben Bernanke to the Board of Governors of the Federal Reserve. Bernanke was one of the leading proponents of New Keynesian macroeconomics, which, after its implementation in dynamic stochastic general equilibrium models (known as NK DSGE models), became the dominant approach in academic macroeconomics and later also in central banks' analytical and modelling frameworks. Bernanke is a typical representative of the American school of macroeconomics, which, for historical reasons, has an almost paranoid fear of deflation, just as generations of German economists have had an enduring fear of inflation. Shortly after joining the Fed in 2002, Bernanke started to warn of deflationary risks and argued in favour of aggressive monetary policy measures to prevent deflation at almost any cost.^[1] This earned him the nickname "Helicopter Ben".

The global monetary policy easing implemented by central banks after 11 September 2001 (Chart 1) led to a sharp economic recovery, a strong credit boom and a surge in asset prices, particularly in Europe. Around 2005, the central banking community began to discuss whether these developments posed a threat to financial stability. Some saw them as a risk, citing the textbook principle that overly accommodative monetary conditions can ultimately trigger deflationary, rather than inflationary, pressures if they undermine the stability of the banking sector. Others downplayed the risk, arguing that banks had learned to manage risks far better, for example by outsourcing them to other financial institutions that were much more adept at risk management.

Chart 1 – Short-term rates in the economy

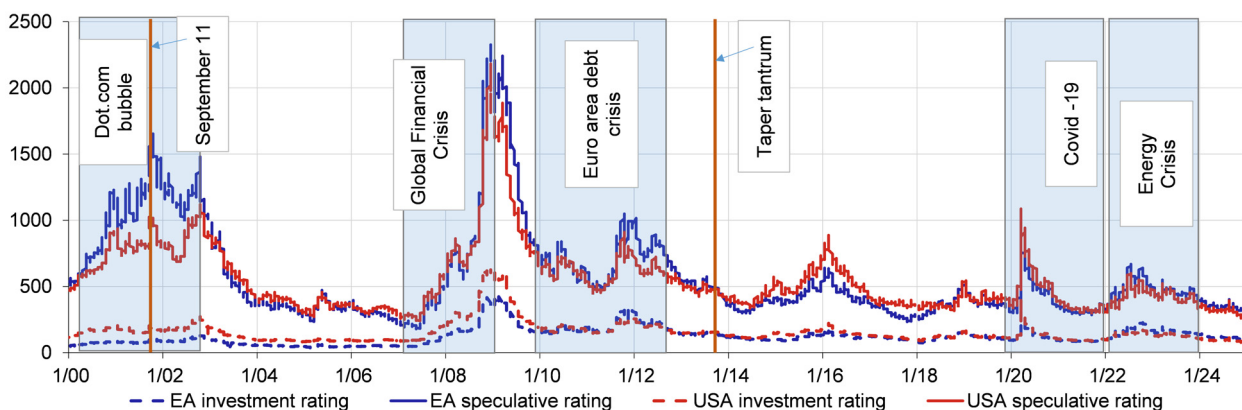


Source: Datastream

It quickly became apparent which camp was right. The first disruptions to the financial system appeared in the United Kingdom in 2007, and subsequently in the United States. In September 2008, Lehman Brothers collapsed, financial markets descended into panic (Chart 2) and the dramatic Global Financial Crisis (GFC) erupted. The GFC was also reflected in disinflationary pressures (Chart 3). Central banks again responded with massive monetary easing and with unconventional policies collectively referred to as quantitative easing. To

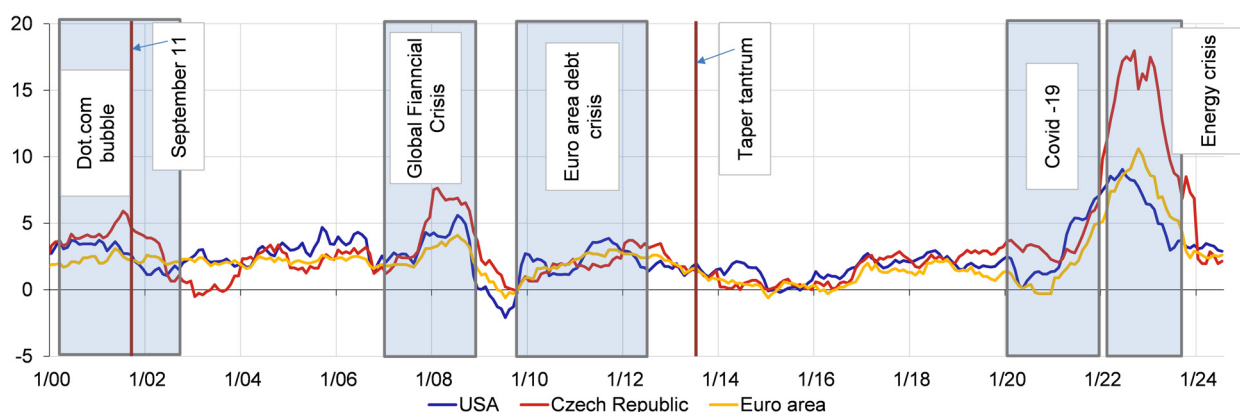
make matters worse, the euro area entered a protracted debt crisis in late 2009. The threat to its very existence prompted a major political response to save the single currency. In summer 2012, ECB President Mario Draghi declared that the ECB was ready to buy large amounts of government bonds if necessary to preserve the euro (the “Draghi put”). As academics, we can of course ask questions like, “How would the world have turned out if the US authorities had not allowed Lehman Brothers to collapse?”, or at least, “What if the ECB had declared itself willing to do whatever it takes at the start of the debt crisis rather than almost three years later?”. At first glance, debating such questions may seem irrelevant to our lives, that is, if we believe we won’t face anything like it again in the future.

Chart 2 – Credit spreads on corporate bonds (bp)



Source: Bank of America Merrill Lynch, Refinitiv

Chart 3 – Inflation and global shocks to the economy



Source: Datastream

Just as things seemed to be improving, another unfortunate event unfolded – the oddly named “taper tantrum”. In spring 2013, the Fed announced that, in response to apparent progress in macroeconomic stabilisation, it would gradually begin to tighten monetary policy and taper off its purchases of US Treasury securities. The announcement prompted a market overreaction, which in turn triggered a sharp rise in bond yields in many other countries –

both developed and emerging. This reaction reignited fears of global recession and deflation. Ultimately, it prolonged the period of exceptionally low interest rates and unconventional monetary policies. The Czech National Bank, which had already been holding its monetary policy rate virtually at zero for some time, responded by introducing an “exchange rate commitment”.

In 2017, it began to become evident in some countries, including the Czech Republic, that given the tight labour markets, it was necessary to start normalising monetary policy. In other economies – particularly the euro area – the “low for long” view of interest rates persisted. But bad things come in threes. In 2019, signs of economic weakening began to reappear, and by the end of the year, the Covid-19 pandemic had broken out. Central banks responded by returning interest rates to near-zero levels and making large-scale asset purchases, while governments engaged in forced fiscal expansion. If we define rates of 0.25% or lower as zero interest rate policy, the ECB has applied this approach for almost 11 years, the Fed for 10 years and the Czech National Bank for more than 6 years in this century. It could be argued that the Bank of Japan has pursued such a policy for practically the entire first quarter of the 21st century, but Japan is a unique and highly specific case. In any event, inflation targeting (or, more precisely, inflation-forecast targeting) as a monetary policy system based on adjusting interest rates in response to projected inflation pressures two to three years ahead essentially ceased to exist. What remained, however, was a well-developed communication framework that we had learned to use effectively.

Nothing lasts forever. When the Covid-19 pandemic ended, the inflationary effects of the inflated public spending and disrupted supply chains started to surface. In Europe, the situation was exacerbated by an energy crisis triggered by Russia’s invasion of Ukraine. This led to an unexpected wave of inflation (Chart 3), prompting key central banks worldwide to reverse course completely. Instead of “low for long”, they are now advocating “higher for longer”. Given the uncertain geopolitical situation and the occasionally erratic developments in asset markets, I’m reluctant to predict whether this approach will last until the end of the first quarter of the 21st century.

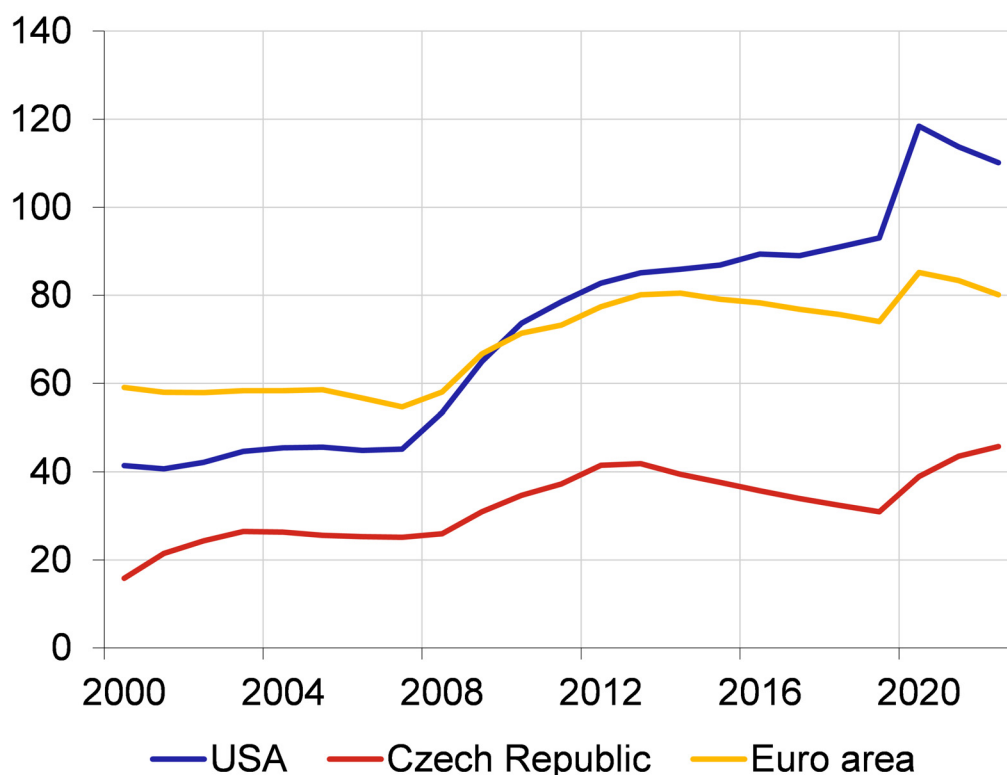
Lessons from the crisis in academia and central banks

How have these 21st century economic developments influenced monetary theory? For much of the period, the focus has been on combating excessively low inflation and the liquidity trap, on providing substantial resources to the financial sector through quantitative easing, on supporting lending through qualitative easing, on managing the yield curve to push down long-term rates, and on implementing other unconventional policies. However, right at the beginning of the century, economists at the Bank for International Settlements in Basel (notably William White and Claudio Borio), and later some dissenting academics, began highlighting the limitations of the New Keynesian macroeconomic models that underpinned the original inflation-targeting framework and were used to justify unconventional policies.

The first wave of debates about the need to adjust the theoretical framework took place roughly between 2010 and 2013. One of its main conclusions was that there was a need to reintroduce the behaviour of banks and financial markets into macroeconomic thinking (i.e. to bring back credit and money) and to abandon the notion of macroeconomic developments as a linear process driven by the rational behaviour of like-minded individuals. Unfortunately, interest in this debate was constantly stifled by the euro area debt crisis, the global market reaction to the “taper tantrum” and by very weak inflationary pressures (Chart 3). It is noteworthy that the discussion on changes in financial market regulation and supervision, which had begun in response to the GFC back in 2009, continued uninterrupted. This discussion led to the implementation of extensive reforms referred to today as Basel III.

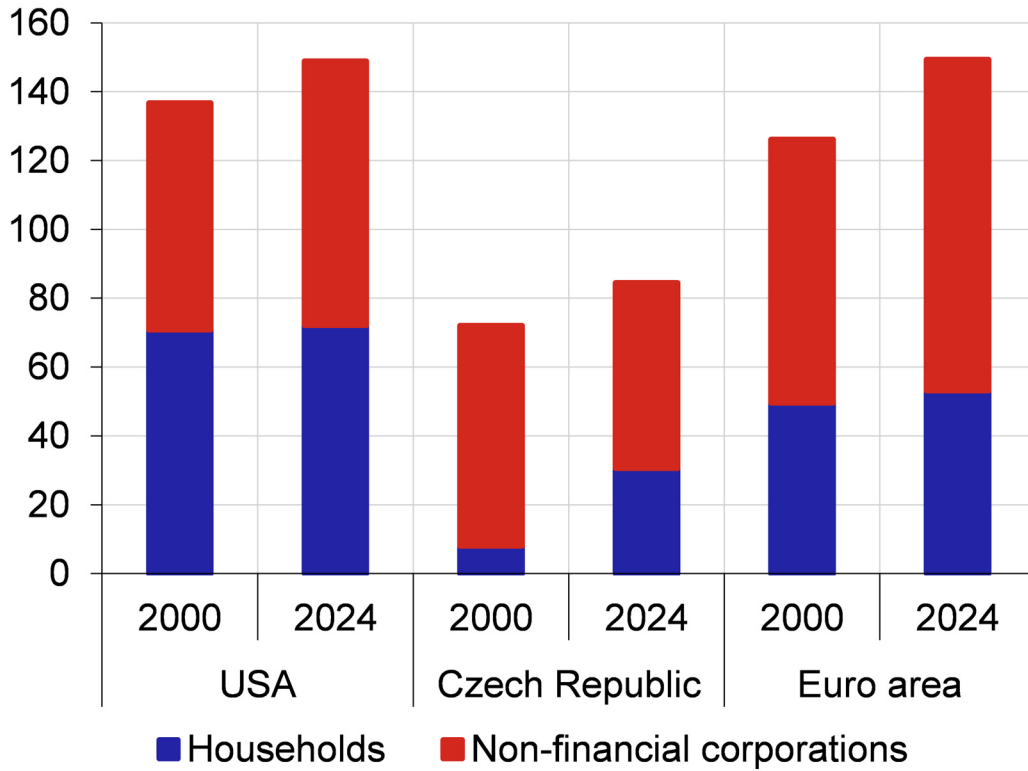
I noticed another wave of discussions about changes in the monetary policy framework beginning around 2018. Macroeconomists responded broadly to the finding that public and private debt had surged, against a backdrop of monetary policy hyperfocused on preventing ultra-low inflation (Chart 4). It was equally impossible to overlook the historically unusual growth in real prices of assets and property seen as hedges against inflation (Chart 5). The inflationary shock that hit Western economies at the end of the Covid-19 pandemic (Chart 3) further fuelled the debate. This was reflected in theoretical thinking as well. Today, few still regard New Keynesian macroeconomics as the sole school of macroeconomics through which central banks should consider their monetary policies and on which academic macroeconomists should base all their analyses.

Chart 4a – Central government debt/GDP (%)



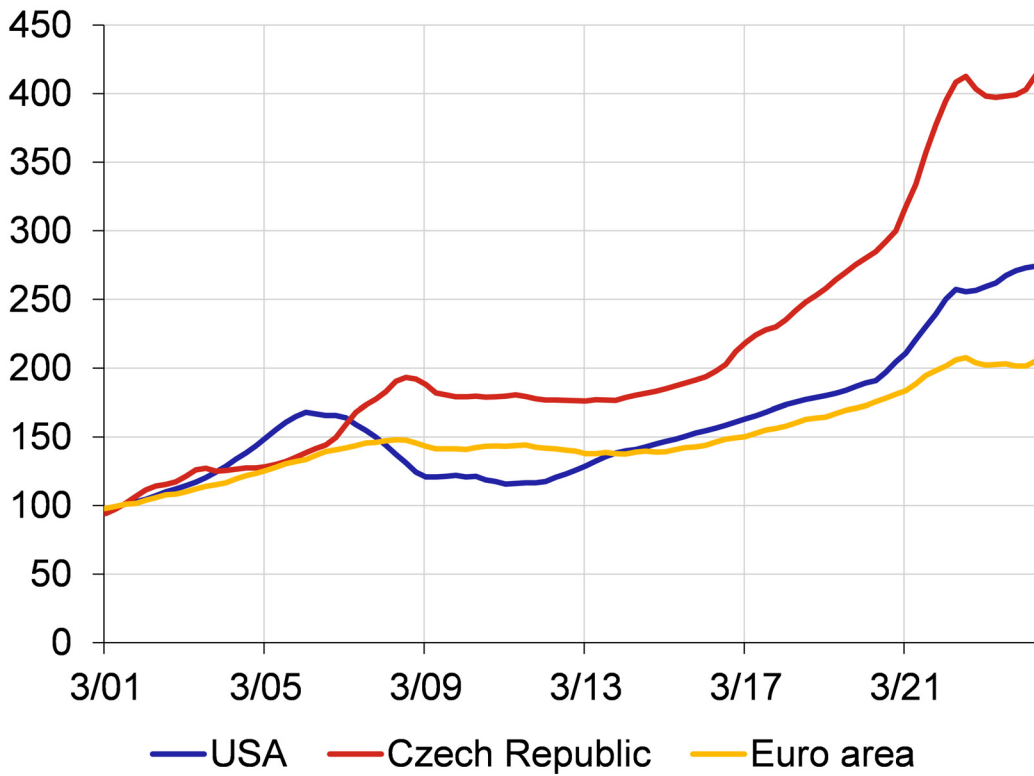
Source: IMF, BIS, ECB

Chart 4b – Non-financial sector debt/GDP (%)



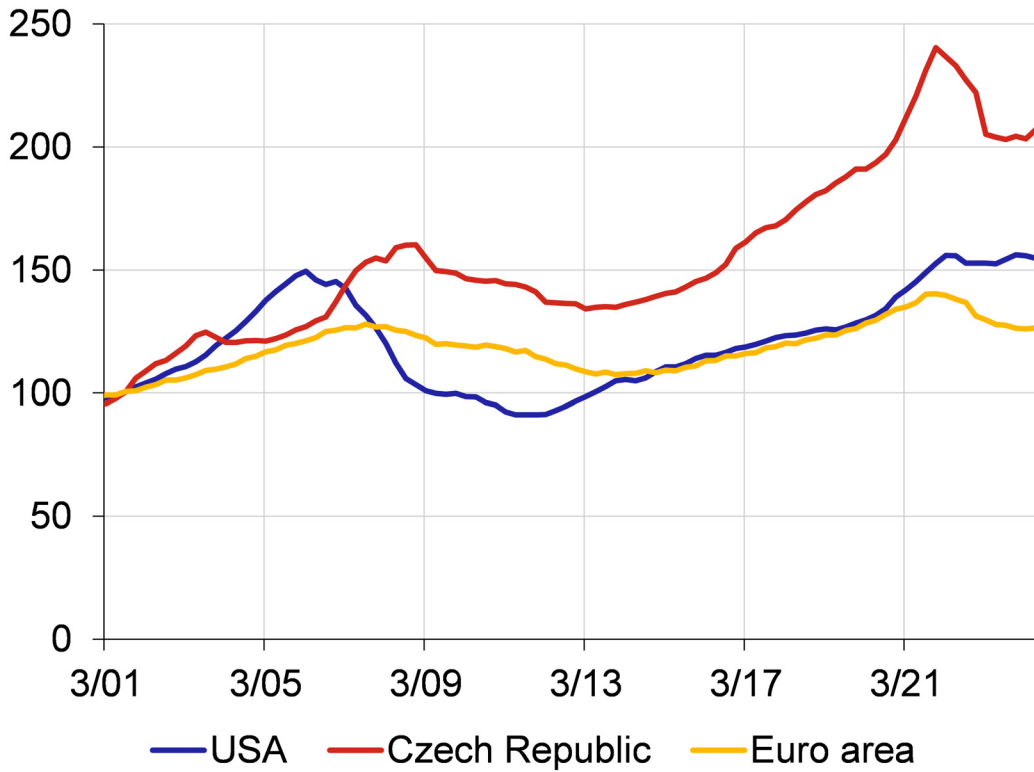
Source: BIS

Chart 5a – Nominal residential property prices in selected countries (2001=100)



Source: BIS

Chart 5b – Real residential property prices in selected countries (2001=100)



Source: BIS

These are elegant models with strong theoretical foundations regarding the behaviour of economic agents. If the economy really behaved in line with such models and the Bank Board acted on their recommendations, price stability (inflation at the inflation target level) and economic stability (output at the potential output level) would prevail. Inflation expectations would also be firmly anchored (i.e. households and businesses would be unwaveringly convinced that inflation will generally align with the target) and the central bank would be able to “fix” imbalances (booms generating inflationary pressures or recessions leading to deflationary pressures) by making smallish adjustments to interest rates. However, we have known at least since the GFC that it isn't that simple.

This year, the Czech National Bank, like several other central banks, decided to commission an external review of the analytical and modelling framework supporting its monetary policy. Among the three reviews we recently published, one well-known fact stands out – a fact that had been somewhat neglected: all economic models are merely simplified representations of reality, and no pre-made model can reliably predict the behaviour of the economy in all situations. We have also been reminded that it is unwise to rely solely on a single model when making monetary policy decisions. Using multiple models can help the Bank Board identify whether inflationary or deflationary undercurrents are developing in the economy. Alternative models should also help us more rigorously evaluate the impacts of once-in-a-generation shocks and mitigate the risk of “groupthink” – the tendency of all central banks, or all economists within a central bank, to convince one another in a blinkered way that there is only one right path – the one they are currently on.

The reviewers also emphasise that the Bank Board should not rely slavishly on model outputs when making monetary policy decisions. Instead, it should consider a wide range of information about what is and has been going on in the global and domestic economy, and what its policies are causing or contributing to. It should realise that monetary policy is not neutral – it has significant distributional effects and influences the structure of financial markets and the entire economy. I am quite sure that if central banks had kept interest rates a little higher in the aftermath of the GFC, it would not have led to a deflationary catastrophe. Economies and their financial systems would merely look structurally different today – possibly even better.

To conclude, I would like to thank the many colleagues who worked here at the Faculty of Economics and formed the Ostrava school of monetary economics, which took shape here during long evening discussions in the early 1990s. In addition to my fellow speakers here today, the originators and proponents of this school include Stanislav Polouček, Lumír Kulhánek, Václav Jurečka, František Varadzin, Lenka Spáčilová, Jitka Sedláčková, Roman Zedníček, Martin Melecký, Aleš Melecký, Viktor Kotlán, Luboš Komárek, Zlataše Komárková, Zuzana Kučerová, Martin Hodula, Jan Janků and Jiří Gregor. I apologise to anyone I may have forgotten to mention. And I wish you all a Merry Christmas with the Czech koruna.

I would like to thank Viktor Zeisel, Adviser to the Bank Board of the Czech National Bank, for his valuable comments and suggestions. Any errors, omissions or inaccuracies are my responsibility.

[1] *Deflation: Making sure “it” doesn’t happen here: Remarks before the National Economists Club, Washington, D.C., 21 November 2002.*