Literature

1. *Community guidelines on state aid for environment protection, OJ C82/2008.*
2. *Consolidated Version of the Treaty on the Functioning of the European Union, OJ C 115/2008.*

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THE ROLE OF BEHAVIORAL ECONOMICS IN ANALYZING MONETARY POLICY FORMULATION

«There is nothing so disastrous as a rational
investment policy in an irrational world.»
J. M. Keynes

For over 20 years the research literature has discussed the role of behavioral economics in monetary policy formulation. Time and again the «science» of economics as practiced by monetary policy makers has failed to explainand apply effective stabilization policies to national and global economic activity. So why do we see actual divergences from intended results? The «science» assumes «rational» behavior in an idealized economy whether modeled in arcane mathematics as the «efficient» market, capital asset pricing, Black-Scholes or most others. Rationality is a basis for economic schools represented at the Federal Reserve whether Classical, Keynesian, Neo-Keynesian, or Chicago School. For this reason the application of behavioral economics to these central banking processes may be enlightening. As a former Federal Reserve staffer and «fed watcher» for three decades this paper will discuss several observed cases where policy has been biased by individuals or voting blocs inside the central bank.

Though policy development may be governed by procedural rules (conduct of meetings),standardized presentations of short term and longitudinal data and application of «state of the science» by dedicated and highly able central bank policy makers, inherentbiases may stillskew the decisions.At their foundation, these biases are called «best judgments.» Institutions that serve the «public good» want to create a self-image of fairness and are not likely to describe their decisions otherwise. The outcomes, in fact, may be welfare improving but not in every case. The possible presence of unrecognized bias is troubling. Behavior influenced decisions appear to have an element of the unpredictable and are often not transparent given the historic secrecy of FOMC policy discussions.

Policy is intertwined over the last 2 decades in the US with major destabilizing events: in 1992-1993 in real estate and savings and loan banks, 1997-1998 with the currency collapse and Long Term Capital Crisis, in 2000-2001 with the «dot com bubble» and now with the ongoing housing market collapse and disruption of financial markets and the world economy. These events were for the most part due to a belief «free» markets are self-correcting. However, these are also cases of decision or non-decision by central bankersthat have contributed to reaching a tipping or reflexive point followed by major disruptions and destabilizations.Obviously the problems of major market dislocations and wider stabilization were not foreseen. Coordinated decisions with the Federal Reserve, other public and private organizations were largely reactive. The «black swans» appear alive and well and the 3 sigma events far more common that theory would predict.

In their book, <u>This Time is Different</u> (2009) economists Reinhart and Rogoff chronicle and analyze major economic collapses over 800 years. The question is: Why did it take so long to see theprecedent conditions and behavior? These destabilizing declines have largely been financial or at the very least attributable to low interest rates and the availability of other leveraging financial instruments. What happened to central bank oversight and the impact of monetary policy? Do the limiting assumptions of current economic models and theories misguiding policy makers? Are the twin goals of low unemployment (5-6%) and «low» inflation (2-3% p.a.) enough? Did these policy targets bias decision makers hesitant to risk private and public sector criticism? Does central bank market information gathering and data analysis get distorted and need revision? The short answer is probably a «yes.»

Persistent institutional bias is significant factor. Though useful in the short run in gaining institutional support for rational policies in the public good, in the longer runmay become detrimental. For example, the Federal Reserve policy arm, the Federal Open Market Committee (FOMC), was established to be geographically diverse (Reserve Bank Presidents in rotation) and contain membership representingdifferent sectors of the U.S. economy. The first Board of Governors had 5 members: a regional commercial banker, lawyer/political operative, Wall Street banker, a businessman, and a single economist. Later Boards often included a former regulator or agribusiness person. This arrangement provided a system of checks and balances. This diversity was true until the late 1970's, when faced with a severe inflation crisis, the mix was changed. To assure anFOMC of supportive, like minded members, a concerted effort was undertaken to create a panel dominated by economists and «insiders» with connections to the Federal Reserve. The Volcker Plan worked to curb inflation but the dominance of economists continues to this day. The lack of diversity has created a bias towards academic economics and away from the realities of financial markets and business. A self-inflicted bias by assembling a group of similar thinking and experienced persons to the exclusion of others is tends to frame and anchor a biased vision.

Linked to the backgrounds of the Central Bankers are the social aspects of their behavior as a group—cooperation and sharing by participants and influence of the «leaders.» The «crowd» of FOMC members have influences from the group and incentives to create a unified policy. Under the shroud of secrecy, this appears to be the case. For sure Chairs from Burns to Greenspan tended to dominate the decision making and public dissents were minimal—perhaps one or two infrequently diverging from the agreed policy. Under Chair Bernanke and the stresses of the «Great Recession» this has changed somewhat. However, pressures to bias via social pressures in the group to be unified around a central policy agreed to by the Chair are present and not necessarily contrary to the public good. The mission of the central bank is to stabilize and speaking with one predominant voice moves towards that goal.

Chairs Greenspan and Bernanke regularly supported the notion that markets are self-regulating and less not more controls were needed. The Federal Reserve System was created to address the problem of «bank panics» that had destabilized the economy for over 100 years before. The Federal Reserve often with help from Treasury resisted regulatory concerns of the legislative branch from Wright Patman, William Proxmire to Barney Frank. So for over a decade until 2007 nothing was done about derivatives and financial insurance products allowing risk taking in highly leveraged transactions.Nothing was said about excessive leverage and liberal loan policies of the government housing finance agencies buying bank and other financial institution originated loans. The persistent low interest rates and lax lending policies encouraged house price increases at 2-4 times the historical rate of 4% p.a.There were dissenters (Shiller, Schilling, Roubini, Soros) outside the central bank but they were not persuasive. A lone insider, Governor Edward Gramlich from 1999 to 2005 warned of the potential hazards. This was not «politically correct.» There as not only a dominating belief in the «free market» but also an aversion to political risk as these were programs supported by Congress and a cognitive dissonance about the «safety» of housing finance bolstered these decisions. Economic theory suggested that low interest rates would stimulate the economy and prolong the economic growth cycle from the dot.com recession. The reality was a «bubble» beyond the scope of central bank economic analysis and policy making. Behavioral aspects were not considered important until the systemic collapse.

In the political domain of monetary policy, decision makers are not so driven by loss aversion, but by its cousin, political criticism aversion. Central bankers resolve to defend their independence, but at the same time exhibit great sensitivity to political pressure from a long list of Congressional economic activists (to name a few: W. Patman, W. Proxmire, R. Paul,B. Frank). Bankers and financial markets have always been a target of politics from the Founding Fathers of George Washington and Alexander Hamilton to the 2012 Presidential Campaign. A 70 country study by Reinhart and Rogoff find that political polarization usually rises after an economic crisis with public support for government shrinking and economic policies more problematic to implement. This means an independent central bank becomes an even more important participant.

The Federal Reserve does not operate in a vacuum and is continuously balancing its public policy with political forces. Policy makers recognize this incentive towards of bias from otherwise «rational»

choices, but the actual process of decision making considering political risk has been clouded by secrecy and the difficulty of measuring outcomes months or years forward. The efforts by Chr. Bernanke to provide explanations of the deliberations and forward guidance may aid, but may also allow observers and critics to recognize deviations from the economic theory prescription. Of course the various «audiences» will evaluate the statements from their perspective and what one may see as a bias another may see a within the bounds of a rational application of economic theory. Probably more information is an improvement, but may help the central bankers little in gaining support for monetary policy actions. No matter what political risk aversion will continue as the silent partner.

Cognitive dissonance favoring past positive experiences over negative ones and causing a failure to accurately observe the present.Consider «high» interest rates, dealing with «stagflation,» fear of deflation.Biased self-attribution and dependency on past experiences.

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FIXED EXCHANGE RATE: VERY EXPENSIVE WHIM

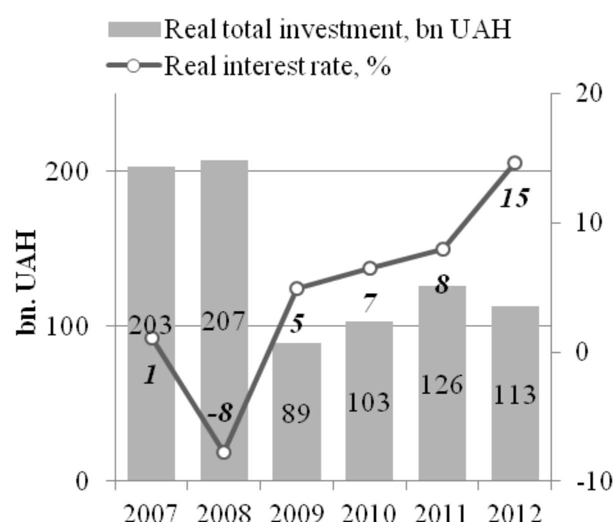
Ukraine follows fixed exchange rate over a long period of time, starting with hryvnia introduction in 1996 to date. National government asserts that such kind of monetary policy makes our economic system more stable. Yet its cost to the society remains ambiguous.

One main disadvantage is alteration of real exchange rate. Different rates of inflation between Ukraine and its major trading partners stimulate the increase in real exchange rate, causing export to decline and import to grow. Another drawback is that current high inflation expectations rocket real interest rate which, in turn, brings about decrease in investment. Investment and net export are two out of four country's GDP components, so their change depresses national income. The government attempts to stabilize the shocks in exchange rate using foreign currency reserves. The consequences are fall in reserves from US$38 bn in August 2011 to US$25 bn to date, though the situation here is not as deplorable as many analysts state.

In order to make an inference whether the current monetary policy justifies itself there was performed an analysis of real exchange rate, net export and NBU's reserves.

Figure 1. The dynamics of real total investment and real exchange rate in Ukraine, 2007-2011

Year	*Nominal interest rate, %*	*Inflation rate, %*	*Real interest rate, %*	*Real total investment, bn UAH*
2007	13.9	12.9	1.1	203
2008	17.5	25.2	-7.7	207
2009	20.9	15.9	5.0	89
2010	15.9	9.4	6.5	102.8
2011	16.0	8.0	8.0	126.1
2012	16.0	1.3	14.7	112.9



Source: State Statistics Service of Ukraine

The data above illustrate the dependence of total investment (fixed investment plus stock building) on real interest rate. The correspondent regression shows that on average, ceteris paribus, for 1 percent point increase in real interest rate total investment falls by 1.4%. Nowadays the total investment is twice lower than its pre-crisis level with the low probability to rebound taking into consideration current government policy. The situation has been aggravated by the population expectations of currency