

RESEARCH STATEMENT

FIELD OF CONCENTRATION

My research interests reside in the intersection of Monetary Economics, Macroeconomics, International Economics and Finance. I focus both on theoretical and empirical aspects of these subjects because I believe in the importance and the power of empirical research guided by relevant economic theory.

My research has evolved gradually from studies of inflation and expectations dynamics to a program that incorporates exchange market dynamics and the use of macroprudential policies for macroeconomic and financial stability purposes. My doctoral dissertation concentrates on the impact of traditional central bank policies on inflation and expectation dynamics in Turkey. The 2007-08 global financial crisis and quantitative easing policies led massive capital outflows from advanced economies like the U.S. and Eurozone towards emerging markets during 2008-2014. The influx of capital flows stimulated emerging market central banks to mobilize macroprudential policies to reduce adverse effects and for financial stability purposes. These events led me to think and put more emphasis on macroprudential policies in addition to traditional ones and analyze the macroeconomic impacts of such monetary policies on exchange markets. Since 2015, capital flows to emerging markets are reversing which creates a contrariwise distress on emerging markets central banks. Hence, I see my near future research agenda continue dealing with the impact of monetary policies and exchange market dynamics but with an enlarged scope for emerging markets and advanced economies.

SUMMARIES OF THE ACADEMIC WORK AND SUBMISSIONS

The generalized Fisher hypothesis, when applied to assets or common stocks, suggests that there is a positive relationship between nominal stock returns and expected inflation. My publication at the *International Review of Economics and Finance* assesses this assertion during periods of structural change. In this paper, I compiled a panel of firm-level data covering a broad range of industries along with Turkish common stock market index values for a long period from 1986 to 2013. Over this period, the Turkish economy went through distinct inflation reduction programs from non-targeting to semi-formal targeting, and finally to full-fledged inflation targeting. My aim for studying such distinct periods is to consider the fact that expectations of inflation may behave quite differently under different monetary regimes. I show that no matter if the data is at aggregate or dis-aggregate levels, stock returns and ex-post inflationary expectations have a negative association. Based on ex-ante inflationary expectations, the relationship between stock returns and inflation expectations relationship confirms the Fisher hypothesis. Furthermore, conducting industry level analysis reveals significant sectoral differences where holding stocks of manufacturing industry firms provide for about 15% better hedge against inflation in comparison to that of service industry firms. This finding suggests that a portfolio manager

should hold the stocks of manufacturing industry firms more intensively in her portfolio to increase real returns.

I completed a research project fully funded by TUBITAK (Scientific and Technological Research Council of Turkey) in 2016. This project studies the impact of Reserve Options Mechanism (ROM) on the exchange market pressure. My work for this project led me to two research papers. Aiming to reduce the adverse effects of short-term capital flows the Turkish Central Bank introduced Reserve Options Mechanism, a new macroprudential policy tool, to the literature in 2011. The mechanism allows commercial banks to keep a certain percentage of their domestic currency's required reserves in foreign exchange (FX). The Reserve Options Mechanism consists of two principal elements: reserve option ratio (ROR) and reserve option coefficients (ROCs), both are set by the central bank and used as policy tools. The reserve option ratio governs the upper limit for the proportion of domestic currency required reserves allowed to hold in FX. The reserve option coefficient stands for FX held against the per domestic currency required reserve.

In the working paper derived from the mentioned project, I and Diana Weymark built an analytical monetary model incorporating Reserve Options Mechanism (ROM). We derive model consistent exchange market pressure index for a small open economy with rational expectations and undertake counter-factual experiments to evaluate the impact of ROM on the obtained index. We show that exchange market pressure is inversely related to the proportion of banks utilizing the ROM facility, the upper limit for Reserve Options Ratio (ROR), and the size of Reserve Options Coefficients (ROCs). Finally, we use Turkish data over the periods of 2005 to 2015 to conduct empirical analysis. We show that the Reserve Options Mechanism reduces the exchange market pressure significantly. To our knowledge, this is the first study that builds a structural macro model evaluating the influence of Reserve Options Mechanism on the exchange market pressure. I consider *the International Journal of Central Banking (IJCB)* an outlet for this paper for publication.

The second paper I obtained from the mentioned project is "Money multiplier under Reserve Options Mechanism" which made it to the Revise-and-Resubmit stage at the *Emerging Markets Finance and Trade* journal. In this paper, we introduce a generalized deposit multiplier to the literature for a monetary system with Reserve Option Mechanism. We then explore various features of the proposed multiplier using Turkish monthly data during the decade 2005 to 2015. We report a step increase in the magnitude and a slight upward adjustment in the long-run trend of the multiplier with the adoption of the Reserve Options Mechanism. We provide empirical evidence for substantial changes in the seasonal pattern of the multiplier, cash ratio, required and excess reserves under Reserve Options Mechanism. We show that the deposit multiplier is less volatile in a monetary system with the Reserve Options Mechanism and discuss the subsequent stabilizing influence of a more predictable deposit multiplier on the foreign exchange market.

In another working paper derived from my doctoral dissertation, I provide a detailed quantitative account of a transition to inflation targeting with a focus on the role of

expectations. I investigate the impact of the Turkish Central Bank's inflation reduction programs on inflation in Turkey from 1996 to 2005, a period where there is a clear-cut transition from non-targeting to semi-formal targeting, and then, finally, to full-fledged inflation targeting. My reliance on fact that Turkey was not part of the great moderation during the mentioned period allow me to consider with greater confidence that the expectational changes I investigate are a consequence of the Turkish Central Bank's inflation reduction programs. To analyze the effectiveness of Turkish monetary policy theoretically, I construct a small open economy model of the Turkish economy under alternative assumptions of rational expectations and adaptive learning. I conduct counter-factual experiments to obtain ex-ante and ex-post inflation pressure measures which characterize the pre-policy and post-policy inflationary environment, respectively. I allow for structural breaks in the data, use various econometric techniques to get reliable estimates of the coefficients appearing in the structural equations of the model and calculate the mentioned indices. Estimates of the inflation pressure indices indicate that there was no significant difference between the inflationary environments in the 2002-2005 period as compared to the 1996-2001 period. However, the monetary policy effectiveness index shows that the period of 2002-2005 during which the semi-formal inflation targeting program was in operation has been more successful in reducing inflation than the policies in the previous period had been. I am final editing this research paper for submission to the *European Economic Review* for publication.

PUBLICATIONS AND WORKING PAPERS

Papers without an internet link are available upon request.

Aktürk, H. (2016). "Do Stock Returns Provide a Good Hedge Against Inflation? An Empirical Assessment Using Turkish Data During Periods of Structural Change." *International Review of Economics and Finance*, 45, 230-246. <http://dx.doi.org/10.1016/j.iref.2016.06.002>

Aktürk, H. (2015). "Black Swan Sticking Out in the Turkish Banking Sector" (with Hasan Göcen and Mehmet Orhan). *Eurasian Journal of Business and Economics*, 8(15), 1-19. <https://www.ejbe.org/index.php/EJBE/article/view/140>

"Money multiplier under Reserve Options Mechanism". The paper successfully made it to the Revise and Re-submit stage at *Emerging Markets Finance and Trade* in 2016. <http://dx.doi.org/10.2139/ssrn.2614431>

"A quantitative assessment of inflation pressure in Turkey". I am final editing this paper for submission to the *European Economic Review*.

"Exchange market pressure under Reserve Options Mechanism". I am final editing this paper for submission to the *International Journal of Central Banking*.