I have both theoretical and empirical interests on Macroeconomics. My interests are on Macroeconomics in general, and on issues regarding monetary and fiscal policy, in particular. Most of my recent work is about the implications of various frictions and asymmetries for optimal monetary policy making. I devote special attention to the optimal long-run inflation rate that results from precautionary behavior by policy makers when the economy is subject to risk and displays asymmetric behavior following adverse and favorable shocks.

My work on the optimal inflation rate contributes to the ongoing discussion and academic research regarding the optimal inflation rate, particularly in light of the recent economic events. The recent recession shows us that big adverse shocks can happen and monetary policy makers may find their hands tied when attempting to conduct monetary policy using “conventional” means. From the normative point of view, I am interested in studying the optimal inflation rate to hold over time in order to allow for more room for policy makers to react once the economy is hit by an adverse shock. From the positive point of view, this line of research can also be seen as suggesting mechanisms that justify the fact that central banks around the world, including the Federal Reserve, do set positive inflation rates over time. My main interest, however, is in the normative side of this topic.

I studied optimal monetary policy in various commonly-used macroeconomic models, such as the labor search and matching framework of Pissarides (2000), the standard New Keynesian model with financial frictions, and a modern sticky-price open-economy macroeconomic model. My work has in common New Keynesian features such as sticky prices, sticky wages and monopolistic competition.

In my job market paper “Optimal Long-Run Inflation with Occasionally-Binding Financial Constraints,” I study the optimal long-run inflation rate under the existence of financial frictions. There are two main innovations of this paper. First, the paper asks about the optimal inflation rate in the stochastic steady state of the model rather than the optimal inflation rate in the absence of risk or the short-run dynamics. Second, the collateral constraint, which is the source of the financial friction in this paper, is introduced through an occasionally-binding collateral constraint, which
generates asymmetry in the model. The main result of the paper is that optimal monetary policy sets a positive inflation rate in the long-run (about half a percent annually). The shadow value on the collateral constraint is akin to an endogenous cost-push shock. Differently from usual cost-push shocks, however, this shock is asymmetric as it takes non-negative values only. Inflation is positive when the collateral constraint is binding and it is zero otherwise. Since the mean of this asymmetric endogenous cost-push shock is positive, inflation is also positive on average. In addition, a binding collateral constraint resembles a time varying tax on labor, which the monetary authority can smooth by setting a positive inflation rate. More generally, the basic result is related to standard Ramsey theory in that optimal policy smoothes distortions over time.

My paper “Optimal Monetary Policy and Downward Nominal Wage Rigidity in Frictional Labor Markets”, currently under revision for the *Journal of Economic Dynamics and Control*, studies the optimal inflation target in the presence of downwardly rigid nominal wages within a labor search and matching model. Clearly, Downward Nominal Wage Rigidity (DNWR) is the source of asymmetry in the model. This paper formalizes the idea of Tobin (1972) within a quantitative Dynamic Stochastic General Equilibrium (DSGE) model with labor market frictions. Tobin suggested that it is optimal to set a positive inflation rate when nominal wages are downwardly rigid in order to “grease the wheels” of the labor market. The paper shows that the optimal long-run inflation rate is positive; around 2 percent annually in the benchmark calibration of the model.

This optimal inflation rate is considerably higher than in an economy with neoclassical labor markets and DNWR (as in Kim and Ruge-Murcia, 2009), suggesting that the nature of the labor market in which DNWR is embedded does matter for policy recommendations. I relate these results to standard Ramsey theory of smoothing distortions (or “wedges”) over time. A virtually constant distortion across periods is the main insight of Barro (1979) and Chari, Christiano and Kehoe (1991), among others. I develop a notion of efficiency in a labor search and matching model following the lines of Arseneau and Chugh (2010). In my study, by appropriately setting the inflation rate, optimal monetary policy reduces the size and the volatility of the intertemporal wedge when prices are sticky and it keeps the intertemporal wedge virtually constant over the business cycle when prices are fully flexible.

In a recent work, “Optimal Capital-Income Taxation in a Model with Credit Frictions,” I study the optimal long-run capital income tax rate in a simple neoclassical growth model with credit frictions. Firms pay for their factors of production, labor and capital, in advance, which requires borrowing at the beginning of the period. Borrowing, however, is constrained by their beginning of the period collateral. This constraint leads to inefficiently low amounts of capital and labor. In this
environment, the optimal capital-income tax in the steady state is non zero. Specifically, with no capital depreciation allowance, the capital-income tax is unambiguously negative so that the distortions stemming from the credit friction are offset by subsidizing capital. When depreciation allowance is introduced, capital-income tax can be either positive or negative depending on the degree of allowance. Quantitative analyses show that for plausible degrees of depreciation allowance the capital-income tax is indeed negative. However, when the government cannot distinguish between capital-income and profits, the capital-income tax is positive since the government levies the same tax rate on both sources of income. These results stand in contrast to the classical result of zero capital-income tax suggested by Judd (1985) and Chamley (1986).

In “Sticky Wages, Incomplete Pass-Through and Inflation: What is the Right Index to Target,” I return to an old question regarding monetary policy in open-economy; the choice of the right index to (strictly) target. Naturally, in an open economy, the monetary authority can target either the Domestic Price Index (DPI) or the Consumer Price Index (CPI) which embodies imports’ prices (and thus it varies with the exchange rate). It was usually suggested that strictly stabilizing the DPI is the optimal monetary policy rule. This result is a particular case of the general idea proposed by Aoki (2001) that it is optimal to stabilize the more rigid price index.

I revisit this issue by considering an open economy model, a la the work of Gali and Monacelli (2005), with sticky nominal wages and sticky imports prices (i.e. incomplete pass-through from the exchange rate to imports prices denominated in domestic currency). This modification is supported by evidence regarding nominal wage rigidities and incomplete pass-through. The fact that nominal wages are sticky renders full stabilization of DPI suboptimal. Incomplete pass-through reduces the response of import prices, denominated in domestic currency, to exchange rate movements and thus dampens the impact of exchange rate fluctuations on the CPI. This increases the desirability of targeting the CPI rather than the DPI (as originally suggested by Gali and Monacelli, 2005). I also consider the case of fully stabilizing nominal wages, which can be seen as an intermediate goal for monetary policy makers; stabilizing nominal wages leads to stabilizing marginal costs and hence domestic prices. The paper suggests that CPI is optimal to strictly target in the following cases: 1) nominal wages are fully flexible and pass-through is relatively low; 2) import prices are fully flexible (complete pass-through) and both nominal wage rigidity and the indexation of nominal wages to CPI inflation are high, and 3) the degrees of pass-through, nominal wage rigidity and indexation of nominal wages are relatively high. In overall, the optimal monetary policy rule depends on the individual characteristics of the economy. In particular, strict stabilization of the DPI is not always the optimal monetary policy rule.
I have also interests in macroeconomics-oriented empirical work. In a joint project with Didem Tuzemen, “Inflation Targeting: a Three-Decade Perspective,” which is forthcoming in the *Journal of Policy Modeling*, we study the effects of the Inflation Targeting (IT) regime on the levels and volatilities of inflation and GDP growth, and examine the implications of this regime for fiscal policy making. Our work covers data of developing and developed countries over the period 1980-2007. We show that the Inflation Targeting regime has crucial benefits for developing and developed countries alike. Despite starting from inferior positions, developing targeting countries experience bigger and faster drops in their inflation rates compared to developing non-targeting countries. After adopting the IT regime, these countries also enjoy higher economic growth. The last result can be explained by the fact that reducing and stabilizing inflation reduces uncertainty and thus attracts investments. Literature has already established the negative effects of inflation and inflation variability on economic growth (e.g. Fischer, 1993). As for developed countries, we find no evidence that Inflation Targeting contributes to faster fall in inflation rates, but the regime has been found to benefit developed targeting countries in two other dimensions. First, growth rates are higher. Second, fiscal policy is conducted in a more disciplinary way, which is reflected in our study by reductions in budget deficits. We attribute this fact to the attempts of governments to achieve the official inflation, as it well-known in the literature that budget deficits are inflationary. Our policy recommendations are thus straightforward: countries, particularly developing ones, which do not yet target their inflation rates officially, should adopt the Inflation Targeting regime.

In an earlier project, “The Trade-Growth Relationship in Israel Revisited: Evidence from Annual Data, 1960-2004,” which has been recently appeared in the *Review of Middle East Economics and Finance*, I studied the role of international trade on the Israeli economic growth over the period 1960-2004. I conducted cointegration tests between the Israeli GDP and TFP, on one hand, and various trade measures, on the other. I also examined the causation from the trade measures to GDP and TFP. The paper shows that GDP and TFP are both long-run correlated with trade. Examining the components of trade, exports and imports, separately, shows similar results. As for causation, the formal Granger causality tests indicate that, in the vast majority of specifications considered, GDP is caused by measures of overall trade and by measures of exports and imports. Total Factor Productivity is caused only by measures of overall trade and exports. These findings support the claims for the significant role that trade, and exports in particular, plays in the Israeli economic growth. To this end, exports are believed to be an engine for the Israeli economic growth.

Summarizing, my interest is mainly on studying issues regarding optimal monetary policy, particularly the optimal long-run inflation rate with the existence of frictions and asymmetries in
the macroeconomy. In the near future, I plan to continue working on these topics as well as further exploring precautionary behavior by monetary policy makers. Generally, I plan to continue my work on studying the factors that justify setting positive inflation rates around the world and formalizing them into DSGE models.

In addition, I am currently studying issues regarding fiscal policy, particularly in the existence of frictions and asymmetries as discussed above. The main focus is on capital-income and labor-income taxation. As a part of studying the effects of financial frictions on the macroeconomy, I am currently working on the “labor wedge” and its relationship with financial frictions.

I have also interests on expanding my research to open-economy models as I believe in the additional insights that we can obtain from open-economy macroeconomics and the importance of open-economy factors in shaping policy. The recent financial turmoil also enhanced my interest on exploring frictions in the banking system. In an ongoing project, I study the implications of imperfect competition in the deposit market for optimal monetary policy. Finally, I will pursue more empirical work, particularly macro-oriented empirical work, as I believe that it can both provide my theoretical work with a more solid basis and provide me with further ideas to explore.

References


