It is widely acknowledged by economists that labor market institutions are important determinants of labor market dynamics. By influencing firms' employment decisions and households' labor supply, and hence the rates of job creation and job destruction, they affect aggregate employment, wage formation, payroll costs, and, consequently, also the level of other key macroeconomic aggregates, such as output, consumption, investment and inflation.

The impact of labor market institutions on business cycle fluctuations has been thoroughly analyzed by economists in recent decades, both empirically and using formal models well-founded on the economic theory. However, somewhat surprisingly, very little attention has been paid so far to the influence of labor market institutions on idiosyncratic unemployment risk faced by heterogeneous workers, and the associated precautionary motives that drive their individual choices. As these motives are crucial determinants of households' consumption and savings decisions, one can expect that they are also important for fluctuations in aggregate demand and, in the presence of price rigidities, in aggregate output.

It can be argued that this gap in the literature resulted mainly from the inability to analyze the business cycle evolution of consumer heterogeneity using standard macroeconomic setups, and in particular dynamic stochastic general equilibrium (DSGE) models. These models, which can be currently considered a workhorse of macroeconomic research, rely on the assumption of complete financial markets, allowing to insure against individual risk. As a result, heterogeneity in labor market status (employment vs unemployment) does not necessarily translate into heterogeneity in spending, which facilitates aggregation and essentially allows one to rely on a representative agent framework.

However, recent research clearly shows that heterogeneity between households and time-variation in inequality have important aggregate consequences. At the same time, recent advances in computational and numerical methods allowed economists to relax the assumption on complete financial markets. This opens the door to rigorous investigation of how the precautionary motives of households facing unemployment risk interact with labor market institutions. In particular, our goal is to analyze the influence of labor market institutions on aggregate demand that works as follows: shifts in the design of these institutions affect labor supply and demand, and thus lead to changes in job-finding and separation rates that shape the uninsured unemployment risk at an individual level. This, in turn, influences precautionary motives and, consequently, affects aggregate demand and output.

By making use of some newly developed computational methods, our project is aimed at incorporating this intuitive channel into a dynamic business cycle model and to revisit the role of labor market institutions in macroeconomic stabilization and aggregate demand management. If the mechanism that links the institutions with precautionary motives is sufficiently strong, which is in line with our research hypotheses, then the project may overturn the results of several canonical studies on labor market institutions that have ignored consumer heterogeneity and unemployment risk, or at least change their quantitative implications. In other words, by taking into account the interplay between those institutions and aggregate demand effects of household heterogeneity, our goal is to shed a new light on the optimal design of public intervention in the labor market.