Chapter 6

Summary and Conclusions

THE recent financial crisis has posed substantial challenges to policymakers worldwide in order to bring the economy back on track. In this manuscript I have discussed and investigated the effectiveness of several (un)conventional policies that aim to mitigate the negative effects of the financial crisis on the real economy. In addition, I have studied some underlying differentials in the macroeconomic adjustment process within a monetary union, measured by inflation expectations, which may have (had) an impact on the transmission of these (un)conventional policies.

Chapter 2 has analyzed the regional differentials in macroeconomic adjustments within the euro area during the crisis using inflation expectations. First, a Vector Autoregressive model (VAR) was designed to measure the anchoring of inflation expectations. In a well-integrated monetary union, inflation expectations should be strongly anchored to the inflation of the union as a whole and not to domestic conditions. However, the estimates have shown a strong national bias in the adjustment of inflation expectations, implying that the anchoring of inflation expectations in line with the ECB's mandate is not complete.

Next, the effects of the crisis on the adjustment of consumers' inflation expectations have been explored using two econometric approaches. First, a fixed-effects panel regression model was estimated which includes the sovereign bond spread as crisis variable. Second, a state space model was estimated for individual member states which incorporates a time-varying coefficient for sovereign risk. The panel and state space estimates have shown that high sovereign spreads lead to a downward adjustment of consumers' inflation expectations (internal devaluation). This suggests that consumers in countries that were most affected by the euro crisis, indeed anticipated that efforts to regain competitiveness and to impose fiscal discipline would lead to internal devaluation. In contrast, we have found no evidence that consumers anticipated higher inflation due to external devaluation and increases in import prices following a euro exit or breakup. This suggests that the breakup concerns which have preoccupied financial markets have not spilled over to the consumers in the euro area.

In Chapter 3 the effectiveness of fiscal policy at the effective lower bound (ELB) has been studied. As traditional monetary policy has been rendered increasingly ineffective due to the ELB and suffers from the "one size doesn't fit all" problem, there has been a growing call for fiscal policy to bring the economy back on track. The literature has, however, not arrived at a consensus about the effectiveness of fiscal policy. This chapter has presented new empirical evidence on the size of the fiscal policy multiplier at the effective lower bound (ELB).

Using a panel VAR model for 17 advanced countries, embedded in a theoretical New-Keynesian model, our results suggest that both the cumulative government consumption and investment multipliers are higher (and exceed unity) when interest rates are persistently low. These results are robust to alternative definitions of our ELB specification, to controlling for the prevailing monetary regime and the business cycle, and to the use of the Local Projection method as opposed to the VAR projections. The results therefore support pleas by several central bankers and other policymakers to give fiscal policy a more important role in stabilizing the economy, provided fiscal policy sustainability allows doing so.

In Chapters 4 and 5 the conduct of unconventional monetary policy within the euro area has been examined. If the ECB interventions during the crisis would have successfully reduced the perceived instability of euro area banks, one would hypothesize a negative relationship between refinancing operations and bank instability (measured by bank CDS rates). A reverse causality can, however, not be excluded. Banks decide to tap central bank liquidity for a variety of reasons. Market concerns about their financial health, leading to deteriorating funding conditions and increasing CDS rates, can be among them. This line of argument implies a positive relationship between bank CDS rates and refinancing operations. As both arguments cannot be dismissed out of hand, Chapter 4 has studied the causality structure between the refinancing operations of the ECB and bank stability during the recent crisis.

The results from estimating two panel model for 25 banks in 7 countries have shown that the increased liquidity provision has not immediately reduced market perceptions of the health of the banking section, as indicated by the bank CDS rates. Furthermore, the results have demonstrated that bank instability increases the demand for ECB funding. These results increases our understanding of what liquidity provision can and cannot do to enhance bank stability and may be of interest to policymakers.

The (un)conventional monetary policy decisions of a central bank have (had) a direct and decisive impact on the size and composition of the balance sheet of central banks (De Haan et al., 2013; Pattipeilohy, 2016). Yet as highlighted before, differences in the macroeconomic adjustment between regions may be present and can cast doubt upon the uniformity in the development of regional central banks within a monetary union. Until now, a complete and harmonized dataset of the disaggregated balance sheet of the Eurosystem has not been available. This has hampered research into the differential regional effects of non-standard monetary policy operations across the euro area. In Chapter 5 a novel harmonized annual dataset has been presented for the disaggregated balance sheets of the National Central Banks (NCBs) that participate in the Eurosystem. Next, a number of indicators have been employed to measure similarity and synchronicity in the development of central bank balance sheets. A comparison has been made with the Federal Reserve System.

The results have shown strong homogeneity in the movement of balance sheets within the Federal Reserve System. However, within the Eurosystem balance sheets substantial asymmetries are observed, especially during the sovereign debt crisis. This finding is in contrast with the scarce empirical work on central bank balance sheet composition that concludes that the relative changes in the composition of the balance sheet of the Eurosystem have been much less pronounced than in the case of the Fed (Pattipeilohy, 2016). These conflicting views from an aggregate and a disaggregate perspective can be reconciled. To the extent that movements in the balance sheet composition of NCBs are more heterogeneous or idiosyncratic, they will tend to average out in the process of aggregation. In contrast, when the balance sheets of the Fed district banks tend to move in the same direction, the effect of averaging out will be smaller and, as a result, the movement in the aggregate balance sheet will be more pronounced. This implies that the relative stability of the Eurosystem's balance sheet conceals instability beneath the surface.

Altogether, in this dissertation I have discussed some issues related to (un)conventional policies and macroeconomic adjustment during the crisis. The findings of this manuscript intend to provide a better understanding of the impact of recent unconventional policies and underlying differentials in the macroeconomic adjustment process, and I hope that the findings may be of use to policymakers and the academic profession.