

Monetary Policy and Real Estate Prices:

A Data Analysis for Switzerland

Bachelor Thesis

Supervised by the
Swiss Banking Institute
at the

University of Zurich

Chair of Real Estate (CUREM)

Prof. Dr. Thorsten Hens

Author:	Daniel Fuchs
Student ID:	08271447
Address:	Wydenweg 5
	8240 Thayngen
Date:	August 16, 2013

I am very thankful to my adviser Manish Gupta, who gave me very valuable suggestions for improvements.

Executive Summary

Introduction and Objective

The Swiss real estate market has been booming for several years. In the fourth quarter of 2012, the “Swiss Real Estate Bubble Index”, which was launched by the UBS in 2011, has entered the risk zone of a possible real-estate bubble for the first time since the property crisis in the 1990s. In addition, the Swiss National Bank has expressed concern about the recent developments in the Swiss real estate market. Whereas the primary goal of a central bank is to maintain price stability - commonly implemented by varying short-term interest rates – its policy decisions also influence asset prices. Based on this, the goal of this bachelor thesis is to trace the relationship between the monetary policy of the Swiss National Bank and real estate prices in Switzerland.

Problem

Monetary policy decisions influence asset prices. It is debated whether central banks, by setting their monetary policy objectives, should take into account asset prices as well. Supporters of this approach believe that price bubbles can be prevented by incorporating asset prices into monetary policy decisions. This strategy however requires that asset-price bubbles can be identified with some precision, which is virtually impossible. Currently, central banks usually refrain from intervening into the economy but during extreme market situations. How central banks should deal with asset market price developments is an issue on which opinions are divided. So far, no cure-all approach has prevailed in science or in practice.

Theoretical concept

The seminal works of Denise Di Pasquale and William C. Wheaton or James M. Poterba, published around the year 1990, have profoundly improved the understanding of the real estate market. Their economic theories state an inverse correlation between interest rates and house prices. While low interest rates raise housing prices, increasing rates decrease prices conversely. Mainly the four-quadrant model and the stock-flow model of Di Pasquale and Wheaton are used here as the theoretical framework of this study, as well as some key features of the asset market approach by Poterba. On these models also relies the main hypothesis of this study.

Method

For empirical analysis, I have examined two different time periods. The first period is set between 1975 and 1986 while the second is set during 1995 and 2011, i. e. before and after the real estate crisis of the 90s. For econometric analysis, an autoregressive, distributed lag model was applied. This approach enables to use time series in analysing the correlations between housing prices and the monetary policies of the Swiss National Bank. For the whole investigation period, quarterly data were applied.

Results

My results for the first time period (1975-1986) show a significant inverse correlation between mortgage rates and housing prices (1% significance level). These results are in compliance with the theoretical framework of Di Pasquale and Wheaton. For the second period (1995-2011), although a similar relationship of interest and asset price developments can be observed, it is in a much more muted form than expected.