



ELSEVIER

Contents lists available at [SciVerse ScienceDirect](#)

# International Review of Economics Education

journal homepage: [www.elsevier.com/locate/iree](http://www.elsevier.com/locate/iree)



## Housing prices and balance sheets effects: A classroom demonstration

Olena Mykhaylova<sup>a,\*</sup>, Shakun Mago<sup>a</sup>, James Staveley-O'Carroll<sup>b</sup>

<sup>a</sup> *Robins School of Business, University of Richmond, 28 Westhampton Way, VA 23173, United States*

<sup>b</sup> *Department of Business Administration, Lander University, 320 Stanley Avenue, Greenwood, SC 29649, United States*

### ARTICLE INFO

#### Article history:

Available online 19 April 2013

#### JEL classification:

A22

E21

G11

#### Keywords:

Housing prices

Collateral constraints

Classroom demonstration

### ABSTRACT

We describe a classroom demonstration in which students explore the relationship between collateral constraints and housing prices. By being actively involved in tracing the changes in consumer balance sheets, students gain a better understanding of the effects of asset prices on household wealth and the associated financial accelerator mechanism. Following the demonstration, students will be better prepared to discuss (a) how lower lending standards facilitated the housing bubble and then led to the 2007–2009 crisis; (b) the impact of irrational consumer expectations on macroeconomic activity during the inflation of the housing bubble; and (c) the role of the central bank in stabilizing asset prices and containing speculative actions of households.

© 2013 Elsevier Ltd. All rights reserved.

## 1. Introduction

The majority of economists agree that the collapse of the housing market both precipitated and exacerbated the 2007–2009 recession. Homes are a major component of household wealth, and the collapse of home prices severely damaged the household balance sheets causing consumers to cut back dramatically on spending. Although this narrative has entered public folklore, most economics students are unable to explain the precise underlying mechanism: what caused the housing bubble to inflate, and why did it burst? What is the connection between fluctuating housing prices and consumption spending? How does it affect the overall economy? In this classroom exercise students experience first-hand the economic incentives and forces governing the housing market. The goal of

\* Corresponding author.

E-mail address: [omykhayl@richmond.edu](mailto:omykhayl@richmond.edu) (O. Mykhaylova).

this “bottom-up” participatory approach is to raise students’ understanding of the links between household credit, housing prices, and lending standards.

We conduct a classroom demonstration of the financial accelerator—the observation that the ability of firms and households to borrow is a function of their net worth. The notion of financial accelerator has not been addressed in mainstream macroeconomics textbooks despite being widely discussed in the academic literature.<sup>1</sup> The main objective of our demonstration is to show students how higher asset prices increase a household’s net worth and therefore its borrowing limit, leading to increase in demand which further fuels asset prices. When the process goes in reverse, the economy may experience a vicious cycle of bankruptcies, lower demand and collapsing asset values.

This demonstration is fairly short and should take no more than 20 min of class time. Our aim is to use a simple numerical example to demonstrate the underlying phenomenon so that in the rest of the class period students will be better prepared to discuss (a) how lower lending standards facilitated the housing bubble and then led to the 2007–2009 crisis; (b) the impact of irrational consumer expectations on aggregate consumption during the inflation of the housing bubble; and (c) the role of the central bank in stabilizing asset prices and containing speculative actions of households.

Our demonstration is ideal for smaller classes of up to 30 students. We want to keep the exercise accessible to students in the Principles of Macroeconomics classes, but our baseline setup can be extended in several dimensions depending on the level of the course.<sup>2</sup> For instance, instructors may choose to add a banking sector, which allows students to discuss required and desired reserve ratios, track the evolution of total credit in the economy, and observe the effect of a looser monetary policy on the housing and financial system collapse. Regardless of the course level, this exercise should be performed following the lectures on monetary and fiscal policies. Finally, this paper is primarily written for the instructor (and not for the students). Therefore, as a teaching aid to the classroom discussions, we have added a number of “talking points” that include both data and graphs to help the instructor link the demonstration to the real world observables. A PowerPoint document with all the graphs included in the paper can be found at <https://facultystaff.richmond.edu/~omykhayl/research.htm>.

## 2. 1995–2007 housing bubble: a brief overview of the underlying causes

In the several years following the burst of the U.S. housing bubble, a multitude of studies have engaged in both empirical and theoretical investigation of the sources of housing price fluctuations. The commonly identified culprits of the recent volatility in the real estate market include international capital flows and the lowering of global interest rates (Caballero et al., 2008; Laibson and Mollerstrom, 2010); loose domestic monetary policy (Taylor, 2009); shifts in preferences for housing (Gete, 2010; Iacoviello and Neri, 2010); financial liberalization (Favilukis et al., 2011); and productivity gains (Kole and Martin, 2009; Punzi, 2007). We begin with a short summary of the key mechanisms operational in the build-up and the subsequent burst of the housing bubble.<sup>3</sup> While many of these details may be beyond the scope of the in-class exercise presented in the next section, they serve to motivate the framework used in our demonstration, and link it to some of the observed outcomes students may be familiar with.

The early 2000s witnessed a significant increase in the international capital inflows into the U.S. (the “global savings glut” identified by Bernanke, 2005). These were caused both by the reactionary build-up of foreign reserves in Asia and Latin America following a series of currency crises during the mid- to late 1990s, and by surging revenues of oil-producing economies. The capital inflows, combined

<sup>1</sup> See, for example, Bernanke et al. (1996), Iacoviello (2005), and Kiyotaki and Moore (1997).

<sup>2</sup> We used a dynamic and more extensive version of this demonstration in upper level macroeconomics classes, such as Intermediate Macroeconomics and Money and Banking. A detailed description of this exercise is available at <https://facultystaff.richmond.edu/~omykhayl/DemonstrationDescription.pdf>.

<sup>3</sup> Gorton and Metrick (2012) offer an excellent overview of the causes, timeline and policy reactions to the 2007–2009 financial crisis. This is an easy read and may be assigned to students as a post-demonstration reading.

متن کامل مقاله

دریافت فوری ←

**ISI**Articles

مرجع مقالات تخصصی ایران

- ✓ امکان دانلود نسخه تمام متن مقالات انگلیسی
- ✓ امکان دانلود نسخه ترجمه شده مقالات
- ✓ پذیرش سفارش ترجمه تخصصی
- ✓ امکان جستجو در آرشیو جامعی از صدها موضوع و هزاران مقاله
- ✓ امکان دانلود رایگان ۲ صفحه اول هر مقاله
- ✓ امکان پرداخت اینترنتی با کلیه کارت های عضو شتاب
- ✓ دانلود فوری مقاله پس از پرداخت آنلاین
- ✓ پشتیبانی کامل خرید با بهره مندی از سیستم هوشمند رهگیری سفارشات