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"THE EFFECT OF THE GREAT RECESSION ON HOUSEHOLD CONSUMPTIONS AND SAVING IN ITALY"

RELATORE:

CH.MO PROF. GUGLIELMO WEBER

LAUREANDO/A: HOANG ANH HUONG

MATRICOLA N. 1176953

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ABSTRACT

This thesis studies the effect of the Great Recession on consumption and saving in Italy, using Bank of Italy's data, SHIW, ISTAT and Eurostat dataset.

The paper is organized as follows. Section 1 presents the importance of household consumption and the Euro-are consumption in general. Section 2 is about the causes and effects of the Great Recession in the world in general and then the effect of it on consumption in the United States, the United Kingdom, Japan and the Euro-area. The main part of this paper is in the section 3 where I present the effect of the Great Recession on consumptions and saving in Italy in the year 2008-2009 and then 2011-2012.

Keywords: Household consumption; saving and debt, the Great Recession

I. INTRODUCTION

1. Why is household consumption important?

Consumption Expenditure is the spending by households on goods and services, excluding new housing. In developed countries it has become the largest component of Gross Domestic Product (GDP) (Arnold, 2008). Consumer spending is what households buy to satisfy their everyday needs. The measurement of consumer spending includes both durable and non-durable goods and services.

Generally, household consumption is considered the final purpose of economic activity, and therefore the level of consumption per person is weighed as a central measure of an economy's productive success. Thus, consumption is among the key determinants of well-being of citizens at the global level.

The importance of household consumption in the economy have been recognized by many demand-driven macroeconomic studies. For example, household consumption is a main determinant of the total multiplier effect in analyzing the effect of an increase in government spending on aggregate economic activity, (Galí et al., 2007; Cogan et al., 2010). This is often because household consumption could be a major component of ultimate demand (which also includes government expenditures, private investments, and gross exports).

In a perspective on demand-driven economies, household consumption is a crucial driving force for production activities. If the household consumption of a selected good increases, production activities needed for this product will increase. As a consequence, for the involved industries its gross output also as its demand of labor input will rise. At the same time, a rise in production activities also result in extra household consumption. Households receive labor income by providing the labor input of the industries. A part of this labor income will be spent by households as consumption expenditures, buying goods and services. As long as the total outputs of industries increase, extra labor inputs are consequently required and therefore the labor income of households increases, which causes a rise in household consumption. This extra household consumption will then end in another round of increases (in the gross outputs of industries, in labor income, and in household consumption), and so forth. The relationship between income and consumption yields the Keynesian multiplier effect.

Also, at the industry level, household consumption plays a significant role. The preferences of consumers determine which products to be produced. The production processes of these

products differ in terms of required intermediate inputs (distinguishing between domestic and imported inputs), required inputs of various types of labor, and other requirements. For example, production within the agricultural industry uses less imports than production within the electronics industry (because the production process of electronics is highly fragmented across countries). The agricultural industry requires various kinds of worker (primarily agricultural workers) from the electronics industry (which needs many operatives).

As a consequence, a rise in the demand for one product will cause different effects (both in terms of size, like on GDP, and composition, like different kinds of workers) than an equal increase in the demand for another product. This suggests that a change in the structure (or composition, or pattern) of the consumption bundle of households will result in changes in the GDP level and employment across occupations.

In contrast, many macroeconomic studies concentrate only on aggregate household consumption and neglect the structure of consumption. The underlying assumption of such analyses is that the composition of the consumption bundle does not change. Nevertheless, empirical studies have shown that the shares of products in the consumption bundle change systematically with income (Deaton and Muellbauer, 1980). Foellmi (2005) further points out that a lot of important macroeconomic problems (such as the link between inequality and growth) need to be rethought once the structure of consumption is taken into consideration.

Household consumption expenditure is the most significant part of aggregate demand. In most countries, it represents a large proportion, which generally is in the region of 60% of gross domestic product (GDP), and thus it is an essential variable for economic analysis of aggregate demand (Organisation for Economic Co-operation and Development (OECD), 2009). For instance, it accounts for about 70% of GDP in the US. Consumption shares of GDP in countries at a comparable level of development are slightly smaller, but still quite high (60% in Germany, 66% in the UK, 58% in Canada - to name just a few). Household final consumption expenditure (also referred to as private consumption) is the market price of all goods and services, including durable products (such as cars, washing machines and home computers), purchased by households, and also payments and fees to governments to obtain permits and licenses (World Bank, 2015). Neoclassical economists (mainstream) in general consider consumption to be the final purpose of economic activity, and therefore, the level of consumption per person is viewed as a central measure of an economy's productive success (Ezeji and Ajudua, 2015). In global level, household income, consumption and wealth are considered among the key determinants of well-being of citizens (Slesnick, 2000; Stiglitz et al., 2009; Gerstberger and Yaneva, 2013).

Hence, the study of consumption behaviour plays a central role in both microeconomics and macroeconomics. Macroeconomists have interest in aggregate consumption for two main reasons. Firstly, aggregate consumption determines aggregate saving because aggregate saving, defined as the portion of the income not consumed, flows through the financial system to form the national supply of capital (Ezeji and Ajudua, 2015). Hence, both saving behaviour and aggregate consumption have a robust influence on an economy's long-term productive capacity. Secondly, as consumption expenditure constitutes almost all national outputs, understanding the dynamics of aggregate consumption expenditure is essential to understanding macroeconomic fluctuations and the business cycle (Gerstberger and Yaneva, 2013). Because of its high share in GDP, consumption expenditure is taken under consideration for fiscal planning in macroeconomic policies. Policy makers try to predict how consumers will behave in the face of income fluctuations. Concerning consumers, consumption phenomena require a decision-making process. For that reason, the consumption suggests a behavioural relationship in macroeconomics.

The household consumption of goods and services is a primary section of economic well-being and, as such, a primary measure of living standards. Wealth and income are available to finance consumption, today and in the future. Income, consumption and wealth are three dimensions of the broader concept of economic well-being, and it is important to perceive the relationships between them. The target of every economy is to achieve the highest level of growth. An increase in growth indicates a rise in the aggregate welfare of the population.

Production, in the market and at home, supports consumption. As written by Adam Smith (1937): "Consumption is the sole end and purpose of all production and the welfare of the producer ought to be attended to, only so far as it may be necessary for promoting that of the consumer." Since then, much focus has been brought into consumption and how to value as well as measure it. Studies in the economics literature have associated food consumption with food expenditures and home production (e.g. Aguiar and Hurst, 2005). Some researchers have estimated consumption based on expenditure data and information on durables (e.g. Meyer and Sullivan, 2011), while others have concentrated on non-durable expenditures as a measure of consumption (e.g. Attanasio et al., 2012). In other cases, total household expenditures are considered as a measure of consumption (e.g. Lise and Seitz, 2011). There has also been research valuing the flow of services from owner-occupied housing from household survey data and national accounts (e.g. Garner and Short, 2009).

In this study, the purpose is to investigate the effect of the Great Recession on the household consumptions and saving in Italy.

Consumption expenditure is the value of consumption goods and services used or paid for by a household to directly meet its needs. These goods and service are obtained:

- through the purchase of goods and services in the market;
- as in-kind income from employers, from self-employment (through the barter of goods and services produced by the household), or from property or other investments (e.g. portion of crop provided by share-farming tenant);
- from the household's own production of goods and services; or
- as transfers in kind from other households or from businesses.

Actual final consumption is the sum of consumption expenditure and the value of social transfers in kind provided by government and non-profit institutions. This is the total value of all goods and services used by the household to meet the needs of its members.

Households also incur expenses not directly aimed at meeting these needs, such as current transfers to government, social organisations or other households. These are non-consumption current expenditure. Households also need to pay interest on any consumer credit that they have.

Total current expenditure is the sum of consumption expenditure, non-consumption current expenditure and interest paid on consumer credit. If total current expenditure in a period is less than total income received in the period, there has been saving and a net addition to wealth. If total current expenditure is more than total income, there has been dissaving and a net subtraction from wealth.

2. How consumption affects utility?

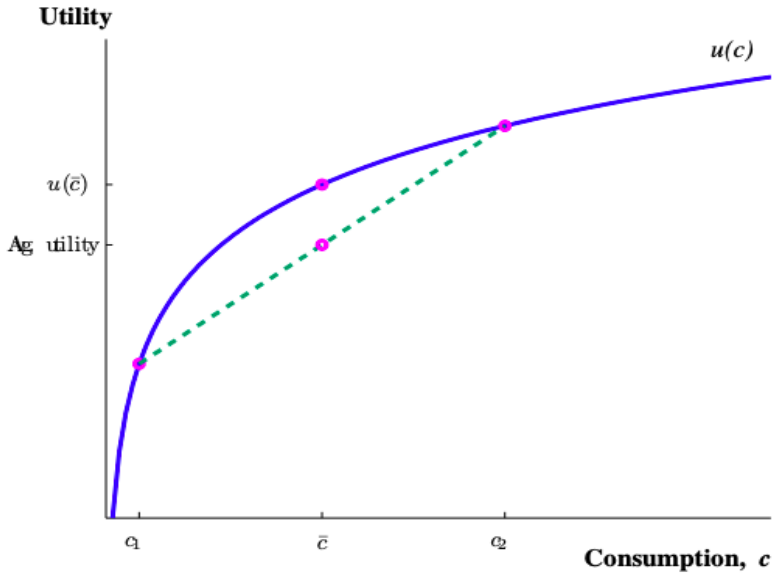
The standard assumption in macroeconomics is that consumption delivers utility through a utility function. For example, if one consumer consumes some amount *c* in a given period, we assume he receives *u(c)* units of utility. Assume that he will get more utility when his consumption is higher, but that consumption runs into diminishing returns, often called diminishing marginal utility. We also assume that he chooses his consumption today and in the future in order to maximize utility. A way to express the lifetime utility function is:

$$\mathbf{U = u(c_{today}) + \beta u(c_{future})}$$

The lifetime utility of a consumer depends not only on how much he would consume today but also his consumption in the future. The parameter β captures the weight that the consumer places on the future relative to today. For instance, if $\beta = 1$, then he treats utility flows today and in the future equally. Alternatively, if $\beta < 1$, a given flow of utility is worth more when it occurs today.

In the Neoclassical Model,

Figure 1: Flow utility u(c)



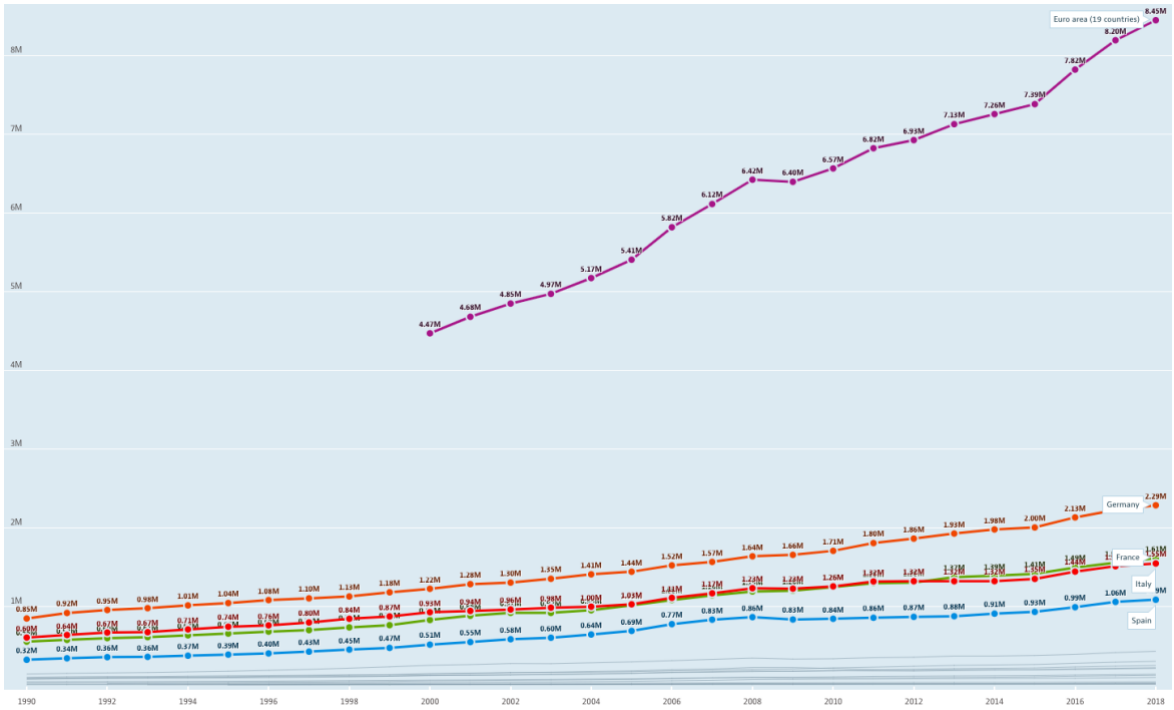
Note: A consumption level of *c* delivers a flow of utility to the consumer of *u(c)*

Utility rises when *c* increases, but the amount of the increase gets smaller and smaller, reflecting diminishing marginal utility. Suppose the consumer could consume c_1 today and c_2 in the future, or could consume the average of these two values in both periods. Because of diminishing marginal utility, he prefers to smooth consumption and takes the average in both periods. (This assumes $\beta = 1$ and the real interest rate $R = 0$ so these results can be shown easily in a simple graph.)

3. How is Euro-area household spending

Following is the graph of the total Euro-area household spending with highlighted lines of German, French, Italian and Spanish in milion US dollars from 1990 to 2018.

Figure 2: Household spending in Euro area



Source: OECD National Accounts

Growth in the Euro-area decreased slightly, from 3.1% in 2006 to merely 2.8% in 2007. Household consumption in the euro-area increased modestly, by 1.5%, affirming an underlying feature of the phase of the cycle. In previous years, household consumption had already been expanding only moderately in 2007 it deteriorated, owing to the sharp decline in spending in Germany at the beginning of 2007.

In 2009 the euro-area's GDP shrank by 4.1% in real terms. The fall in household consumption of 1.1% in real terms contributed to weak demand within the euro area and curbed the already slow growth recorded since the turn of the century. The fall derived both from the stagnation of real disposable income, regardless of moderate inflation, and from the rise in the saving propensity. Among the main countries, the propensity to save extended most markedly in Spain (from 12.9 up to 18.8%) and remained relatively high in Germany (17.2%).

Euro-area GDP contracted by 0.6% in 2012 after broadening by an overall of 3.5% in 2010-11. In the euro area as a whole domestic demand decreased by 2.2%, more than the recovery of the year 2011-12. After stagnating in 2011, household expenditure declined sharply (by 1.3%). Of the major countries, Germany alone recorded a rise in consumption, and a much smaller one than in 2010 (0.6 as against 1.7%).

II. THE GREAT RECESSION IN THE WORLD AND ITS EFFECTS ON CONSUMPTION (UK, US, EURO-AREA, JAPAN)

1. The causes of the great recession 2007-08

The original cause of the Great Recession was credit crunch (2007-2008) when the global banking system lacked funds, resulting in a decline in confidence and bank lending.

- From 2000 till 2007, the US banks made a big increase in subprime mortgage loans. These mortgages were extremely risky, but people irrationally believed that house prices would continue rising.
- The US mortgage companies sold these 'risky mortgage bundles' on to banks around the world. (Despite the fact these bundles were highly risky, credit rating agencies gave them AAA ratings.)
- Around 2005, US interest rates increased, homeowners in the US started to default on these risky mortgages.
- Not only the US banks lost money, but also banks around the world later realized the 'safe' mortgage bundles they bought were actually useless. So many banks around the world saw a big fall in liquidity and value of their assets.

The recession was also caused by

- A shortage of liquidity resulted in a credit crunch which then led to a fall in bank lending
- Decrease in consumer and business confidence resulting from the financial instability.
- Fall in exports from the worldwide recession.
- Fall in house prices leading to negative wealth effects.
- Fiscal austerity compounded the initial fall in GDP.
- In Europe, the euro additionally created problems because of overvalued exchange rates, and high bond yields.

2. The effects of the Great Recession in the world

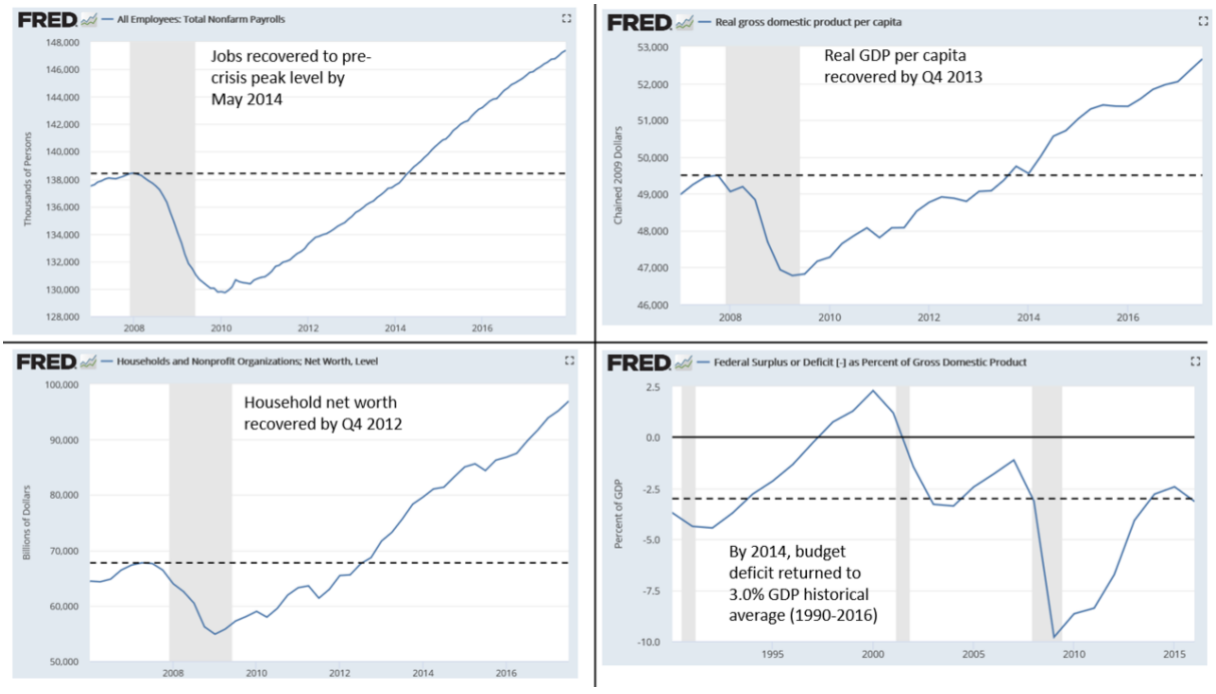
2.1. The overall effects of the Great Recession in the world

In 2008, all major economies saw a really sharp drop in real GDP. The banking crisis severely curtailed normal bank lending. The result was a fall in investment and consumer spending resulting in a sharp drop in real GDP.

2.1.1. In the US

The Great Recession had a major economic and political impact on the United States. While the recession technically lasted from December 2007-June 2009 (the nominal GDP trough), many important economic variables did not get back to pre-recession (November or Q4 2007) levels until 2011-2016. Household net worth, which reflects the value of both stock markets and housing prices, dropped $11.5 trillion (17.3%) and did not retrieve its pre-recession level of $66.4 trillion until 2012 Q3. The number of employed persons (total non-farm payrolls) fell 8.6 million (6.2%) and did not get back to the pre-recession level of 138.3 million until May 2014. The unemployment rate reached the peak at 10% in October 2009 and only returned to its pre-recession level of 4.7% in May 2016.

Figure 3: Subprime mortgage crisis and Great Recession by the 2013-2014 time period



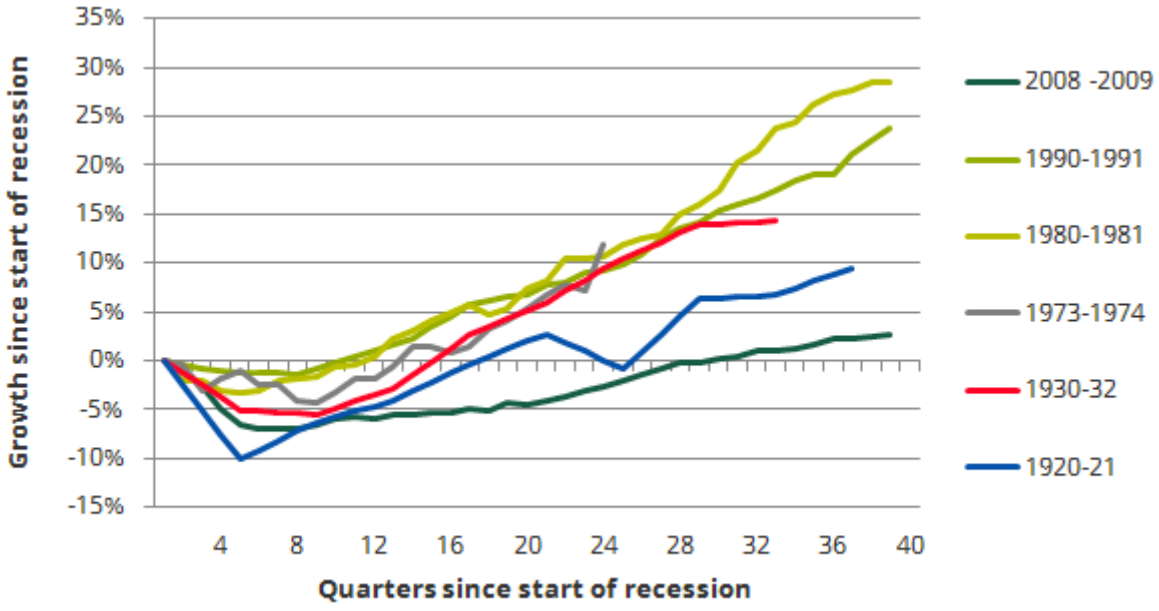
Source: FRED U.S. Bureau of Labor Statistics

2.1.2. In the United Kingdom

Due to its relative severity, the financial crisis of 2007-08 precipitated a global economic downturn. In the United Kingdom GDP reached a pre-recession peak in the first quarter of 2008 at £422,382 million and decreased for the next five quarters reaching a low of £396,514 million in the second quarter of 2009, an total drop of 6.1%. On the other hand, net national income fell 11.9% from pre-recessional levels and then a short recovery began a further downturn in the final quarter of 2010. At the same time the unemployment rate increased from 5.2% to a 8.5% by October 2011. House prices decreased by 16% in 2008. The real-estate crisis originated a sharp contraction in residential investment. Fixed investment in business stagnated.

In the first quarter of 2009, economic activity diminished significantly (by 7.3% on an annual basis). CPI inflation, declining to 2.3% in April 2009. Economic activity shrank by almost 5% in 2009, stabilizing only in the fourth quarter. Consumption contracted by 3.2%, playing a larger role than in other advanced economies in the GDP decline. Business investment continued to narrow down throughout the year 2009, suffering from difficulty in gaining bank credit that was partly offset by recourse to the capital market. In 2009-2010, the public sector borrowing requirement, excluding the temporary effects of financial interventions, expanded to 11.8% of GDP (from 6.7% in 2008-09). The whole economy steadily recovered after the Great Recession, in comparison with previous recessions (Figure 4).

Figure 4: Comparison of recoveries from recessions since the 1920s, GDP per capita



Source: Office for National Statistics series IHXW, Bank of England *A millennium of economic data* and author's calculations

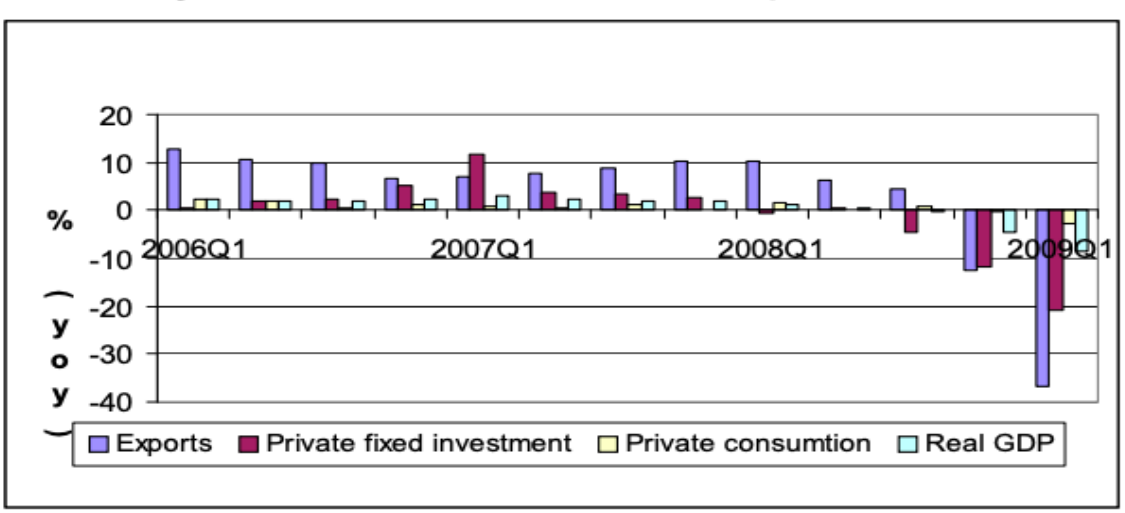
Note: Series stop when a new recession or WWII begins. 1920 and 1930 recessions based on annual data

2.1.3. In Japan

The global financial crisis in 2008-09 hit Japan as hard as it did with all major industrialized countries. When the United States and lots of Europe went into recession in early 2008, Japan's real economy did not seem to be transformed materially. However, Japan was adversely affected by the huge negative terms of trade shock in 2008. The Tokyo exchange stock market crashed as did major stock markets throughout the world. The Nikkei and Topix indexes recorded declines over four percent in one day on several occasions, and dropped below important markers.

With a sharp increase in energy and also other commodity prices, Japan still continued its positive growth in real GDP and private fixed investment through the second quarter; export growth remained steady through the third quarter (figure 5). The evidence of a severe economic contraction was clearer was only in the fourth quarter with a 12.5% (year-on-year) decline in exports. This was followed by a 36.8% fall 2009 Q1. Likewise, industrial production also contracted sharply; it decreased by 15%, 34% and 27.6% (year-on-year) in 2008 Q4 and 2009 Q1 and Q2, respectively. This drop was one of the worst amongst the major developed countries—in Europe and North America—and Asian economies. The impact was indeed very severe when Japan was finally hit.

Figure 5: Growth Rates of GDP and Its Components



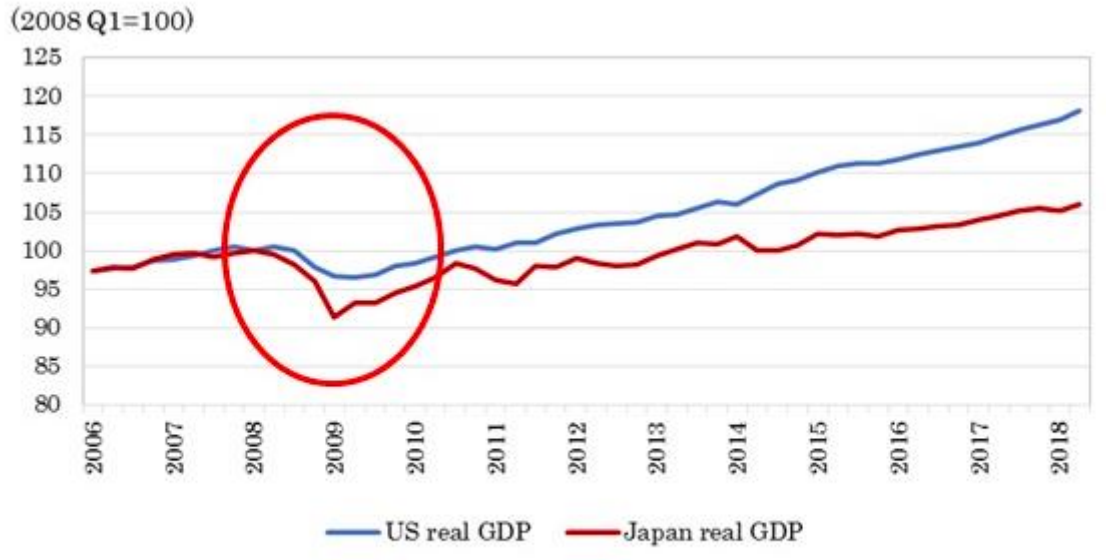
Source: Japan Cabinet Office

The Japanese economy contracted 3.3% in the fiscal year 2008 (between April 2008 and March 2009). The trade deficit hit ¥223 billion in November 2008 and reached a peak of ¥952.6 billion in January 2009. The IMF, in February 2009, said that Japan was in a “deep recession." GDP decreased 12.1 percent in the October to December quarter in 2008, the biggest contraction in Japan since 1974 when it was in the midst of oil crisis, and dropped 14.2 percent in the January to March 2009 quarter, the steepest decline on record. Unemployment rate climbed to a high of 5.7% in August 2009.

The contraction in economic activity started in the second quarter and intensified in the fourth in 2008, when GDP crashed at an annual rate of 14.4%, mainly due to the exceptional deduction of 47.1% in exports, reflecting the brusque drop in exports of capital goods, digital products and motor vehicles.

Taking the real GDP at 2008 Q1 as 100, figure 6 shows that the real GDP of Japan dropped much steeper than that of the U.S. and has also been slower in recovering the pre-Lehman shock level of GDP.

Figure 6: Real GDP of Japan and the United States

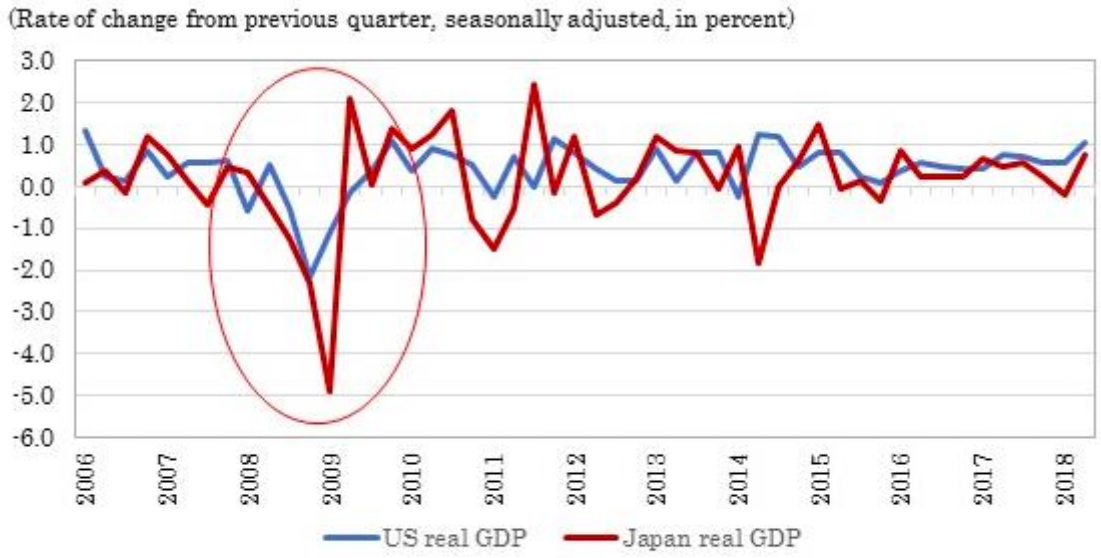


(Data Source) Japan: Cabinet Office, United States: Federal Reserve Bank of St. Louis

The difference in the impact of the Lehman shock can also be seen when we look at figure 7 which shows the real GDP growth rates of the two countries during the same period. It shows that real GDP fell by -1.3%, -2.3%, and -4.9% in 2008 Q3, 2008 Q4, and 2009 Q1, respectively.

The drops in real GDP in the three quarters were all larger than the decrease in real GDP during the same period in the United States.[1]

Figure 7: Real GDP Growth Rates in Japan and the United States



(Data Source) Japan: Cabinet Office, United States: Federal Reserve Bank of St. Louis

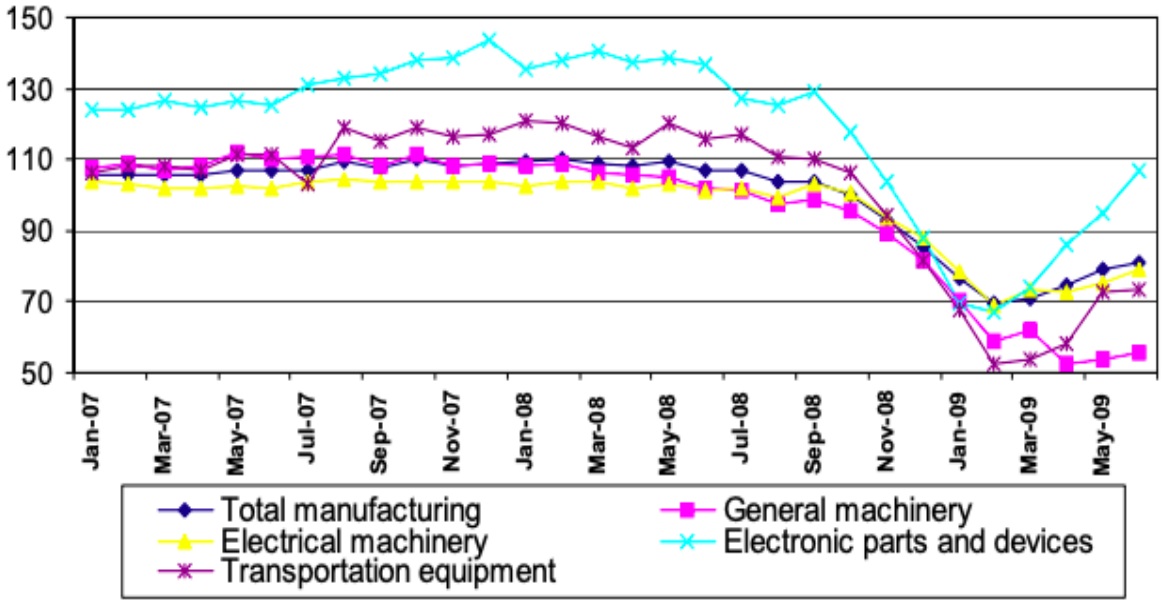
Economic activity kept contracting in 2009 Q1, at an annual rate of 15.2% due to a decline in investment and the collapse of exports (down 70.1%). For much of 2008 employment was mainly unaffected by the trend in economic activity, slipping by just 0.4% year-on-year. In the first few months of 2009, the impact of the great recession started to emerge more forcefully, and in March the unemployment rate climbed to 4.8%, compared with 4.3% in December. A January 2009 survey indicated that 124,800 non-regular workers lost their jobs, with only 10% of them able to find new jobs. Homeless shelters filled up with young adults. Exports declined to a record 16.4 percent in 2009 and Japan trade balance plunged to a deficit of $7.25 billion in the fiscal year 2008. Two cornerstones of the Japanese economy, i.e. consumer spending and exports, dropped.

Overall manufacturing production held up through September and October 2008 (Figure 8). However, in November, it collapsed in all major sectors (from 100 in October to 93, seasonally adjusted). Overall manufacturing production continued to drop and hit 70 in February 2009 before recovering moderately. The collapse was even more dramatic for transportation equipment (from 110 in September 2008 to merely 52 in February 2009) and general machinery

[1] Jun SAITO (2018) : Why Was Japan Struck So Hard by the 2008 Crisis?, Japan Center for Economic Research.

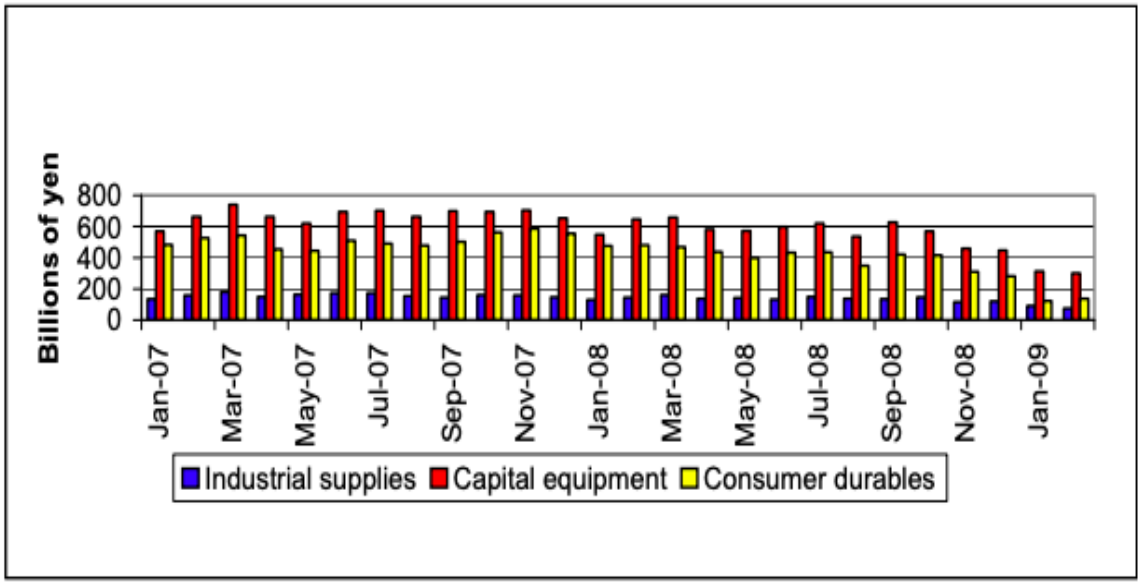
(from 99 to 59). The production of general machinery remained recessed even after production started to pick up in other sectors from early 2009.

Figure 8: Japanese Industrial Production (2005=100 sectors)



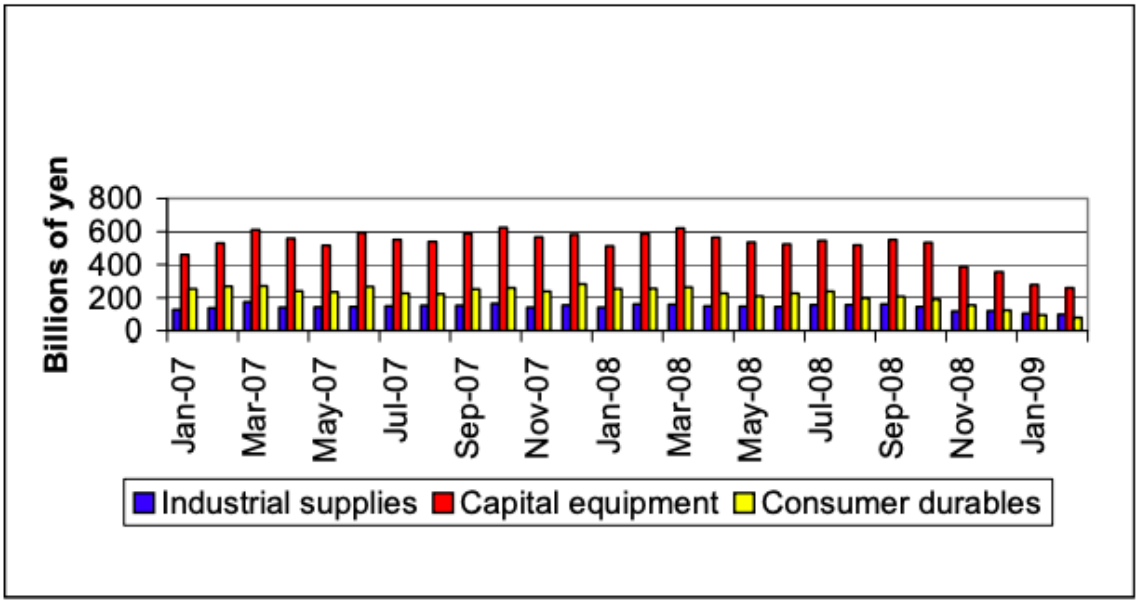
Source: Ministry of Economy and Industry

Figure 9: Japanese Exports to the US by Product Category



Source: Japan Tariff Association (2007, 2008, and 2009)

Figure 10: Japanese Exports to Western Europe by Product

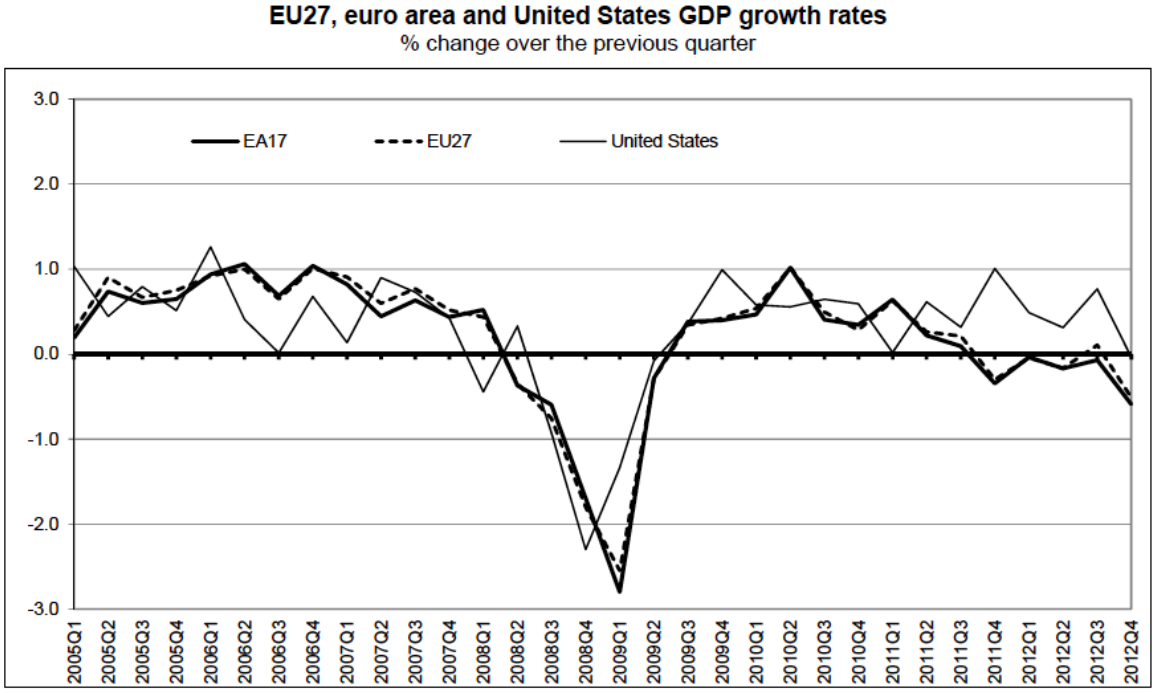


Sources: Japan Tariff Association (2007, 2008, and 2009)

2.1.4. In Euro-area

Growth rate in the European Union reduced sharply from 2.9% in 2007 to 0.9% in 2008. In the euro area, where GDP started to fall in the second quarter, growth hit 0.8% (Figure 11).

Figure 11: Euro area Growth rate



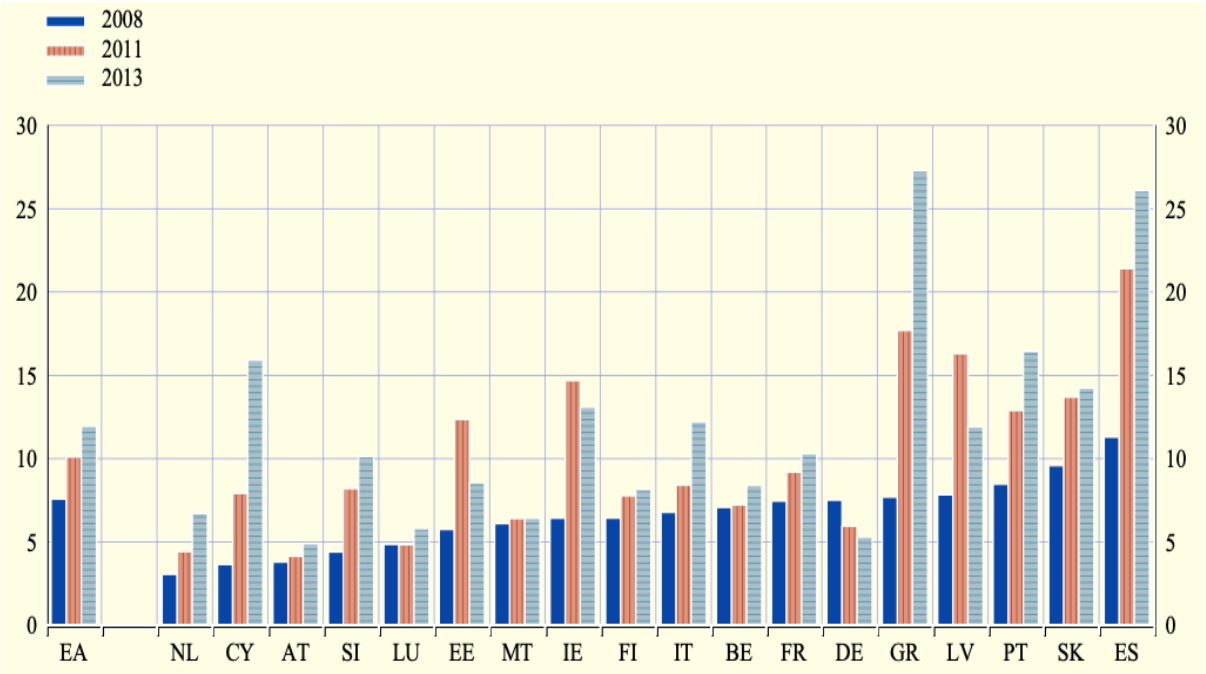
Source: Eurostat

The Eurozone recession began from 2008 Q1 to 2009 Q2. In the eurozone as a whole, industrial production dropped 1.9 percent in May 2008, the sharpest one-month fall for the region since the exchange rate crisis in 1992. 2009 saw the most severe contraction in GDP of the euro area since the Second World War, shrank by 4.1% in real terms. After the sharp decline in output during the first half of the year, all the major countries marked a modest recovery in the later half, except for Spain, hit by the severe contraction in the construction sector.

Regarding unemployment rate, six years after the start of the first euro area recession (which began in 2008 Q2), euro area employment remained around 4% below its pre-crisis peak, five and a half million people lost their jobs and the euro area unemployment rate, rose from a pre-crisis low of 7.3% to a peak of 12.0% early in 2013, declined only modestly since then. Over the course of the Great Recession, all countries witnessed some deterioration in their unemployment rates, with national rises ranging from 0.2 percentage point in Germany to 9.8 percentage points in Latvia. The range of outcomes was more marked still (Figure 12). Seven countries (Ireland, Greece, Spain, Italy, Cyprus, Portugal and Slovenia) stood out as having seen particularly large and persistent upturns in their unemployment rates since the beginning of the crisis.

Figure 12: Unemployment rates across the euro area

(percentages of the labor force; countries ordered according to their unemployment rate in 2008)



Sources: Eurostat and ESCB calculations.

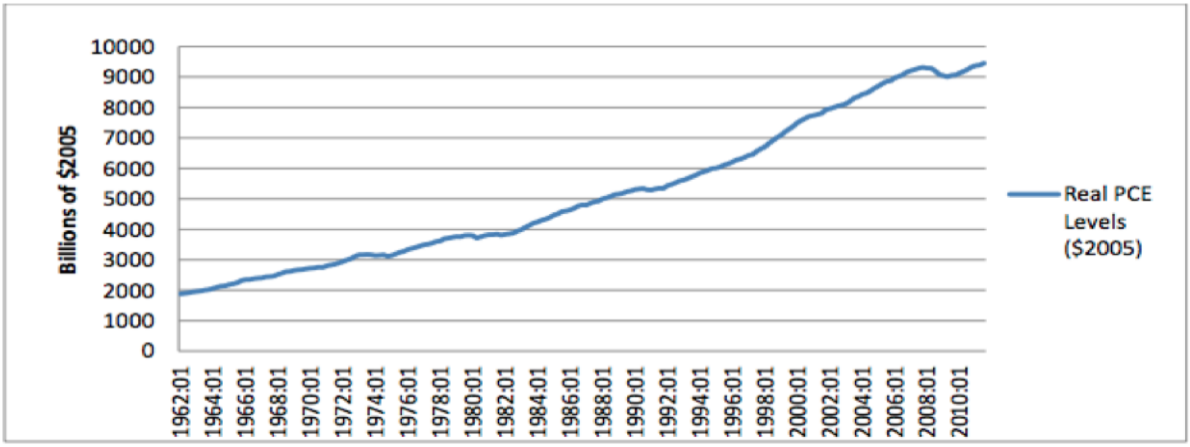
2.2. The effects of the Great Recession on the consumption

2.2.1. In the US

The Great Recession of 2008–09 was characterized by the most severe and persistent year-over-year decline in consumption the United States had experienced since World War II (1945). The consumption contraction was both deep and long lasting. It took almost twelve quarters for total real personal consumption expenditures (PCE) to regain its level at the previous peak (2007:Q4).

First, the Great Recession witnessed the most severe and persistent decline in aggregate consumption since World War II. All subcomponents of consumption declined during this period, with the large drop in services consumption compared to previous recessions. Second, the time path of consumption and its subcomponents was not substantially different from the past recessionary periods. Third, following the Great Recession, the recovery path of consumption has been uncharacteristically weak. It took almost three years for the aggregate consumption to go back to its level just before the recession. In contrast, the second worst rebound was in the 1974 recession which lasted just over one year. The data implies that this persistence is reflected most in the subcomponents of non-durables and especially services consumption. Furthermore, expected income growth is a strong predictor of actual future income growth. Since the expected income growth is a significant determinant of consumption decisions, the observed drop in expected income has the potential to explain at least part of the observed decline in consumption (Mariacristina De Nardi, Eric French and David Benson, 2011).

Figure 13: Level of real personal consumption expenditures in 2005 dollars, in billions

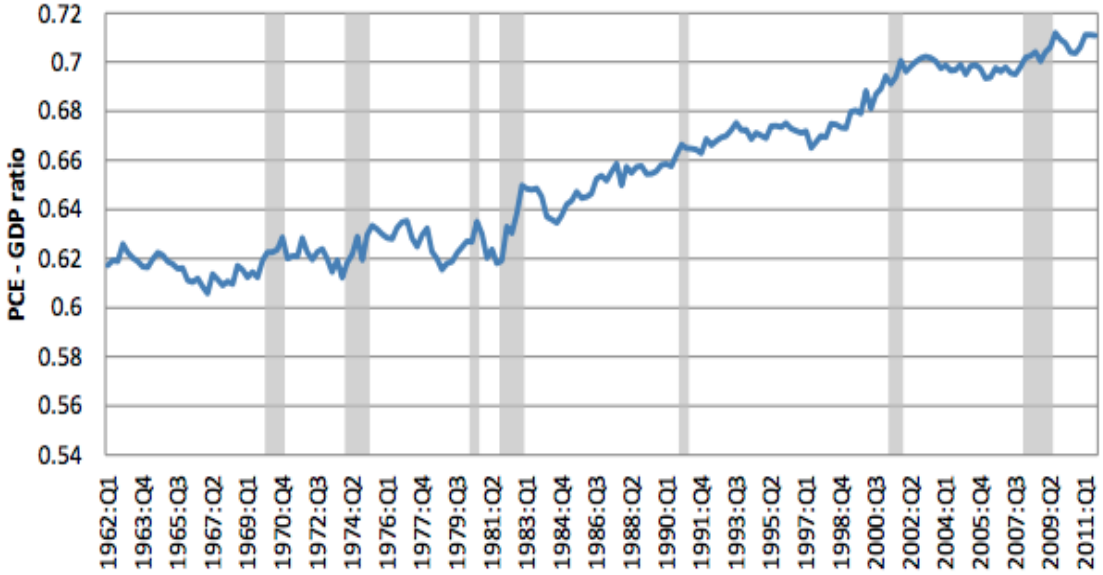


Note: PCE is personal consumption expenditures.

Source: Haver Analytics.

Figure 13 shows the level of real personal consumption expenditures from 1962 to 2011 Q3. Even over this long horizon, the chart indicated a flattening out of the consumption growth rate in 2008 and 2009. The fact that this pattern was clearly visible even over a period of almost 50 years implied the severity and persistence of the Great Recession and the very moderate recovery that is following it.

Figure 14: Nominal PCE to nominal GDP ratio with NBER recession shading since 1962



Notes: PCE is personal consumption expenditures; GDP is gross domestic product. Shaded areas indicate recession periods as defined by the National Bureau of Economic Research

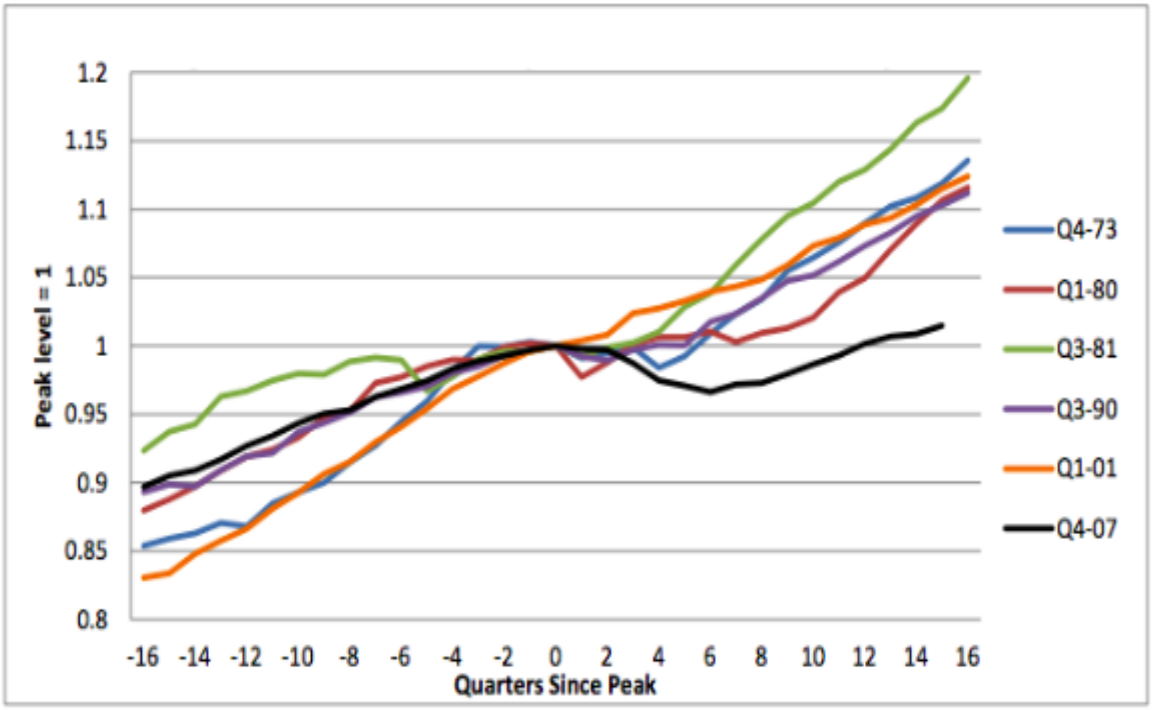
Source: Haver Analytics.

Figure 14 indicates that consumption growth outpaced GDP growth through previous recessions. The nominal PCE–GDP ratio increased in each recession since 1962. In contrast, during the Great Recession, it rose more modestly. Since the latest recession, this ratio either fell or stagnated. Hence, as a share of GDP, consumption had been hit harder than in past recessionary periods.

Figure 15 reports a spider chart comparing the time path of real PCE over several recessionary time periods. For each recession, the level of PCE is normalized to 1 at the NBER peak prior

to the recession. The NBER dates for the recessions peaks are 1973 Q4, 1980 Q1, 1981 Q3, 1990 Q3, 2001 Q1, and 2007 Q4.[2]

Figure 15: Normalized real PCE levels over recession periods



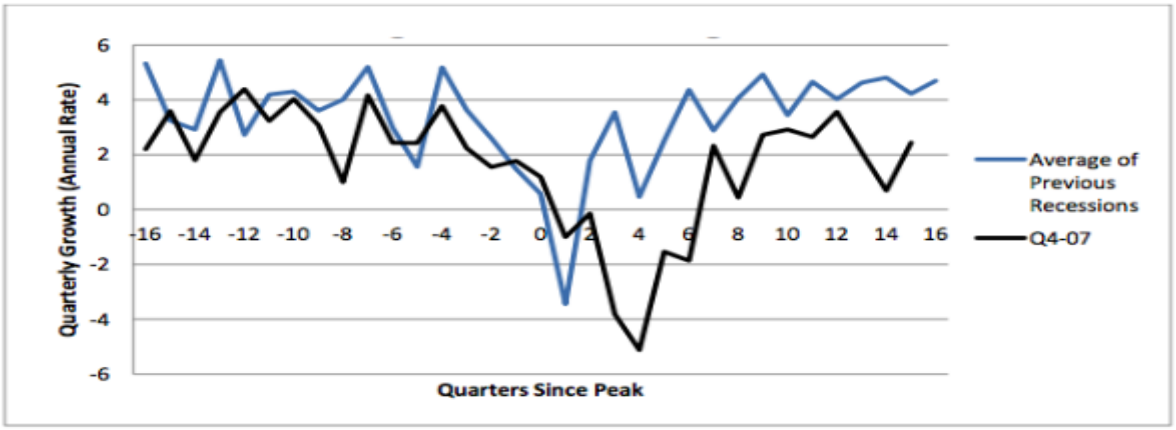
Note: PCE is personal consumption expenditures.

Sources: Haver Analytics and authors' calculations.

Figure 16 highlights the time path of the real personal consumption expenditures growth rate for the 2008-2009 recession around the NBER peak and compares it with the average real PCE growth rates from all other recessionary periods since 1971. This graph indicates that the average real PCE growth rate around the 2008-2009 recession was significantly lower than the corresponding average over the previous five recessionary periods. Consumption grew 4.1% in total over the last 5 years, or an average rate of 0.8% per year. This is in contrast with the fact that over the 1971 - present consumption growth was on average 3.1% per year, adding up to almost 15% growth over an average 5-year period. Hence, consumption expenditures were about 11% below what they would have been had they grown at their historical averages from 2007 Q4 onwards.

[2] Mariacristina De Nardi (2011), Consumption and the Great Recession, No 17688, NBER Working Papers from National Bureau of Economic Research, Inc

Figure 16: Real total quarterly PCE growth over the 2008-2009 recession compared with the average quarterly growth rates of all other previous recessions since 1974



Note: PCE is personal consumption expenditures.

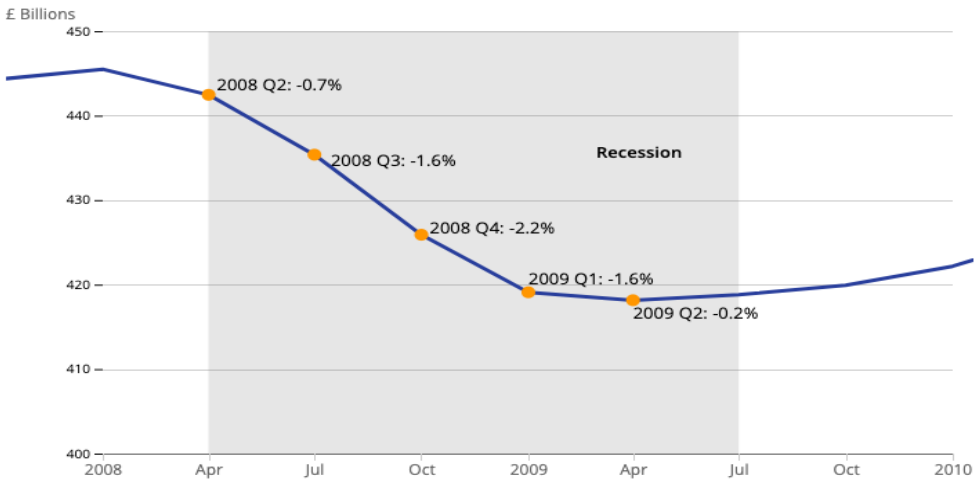
Sources: Haver Analytics and authors' calculations.

2.2.2. In the United Kingdom

The Great Recession made severe impacts on consumption behavior in the Great Britain. Households tended to cut back on their expenditure on certain goods and services (e.g. alcohol, eating out, household durables) and household saving rose sharply in the recession.

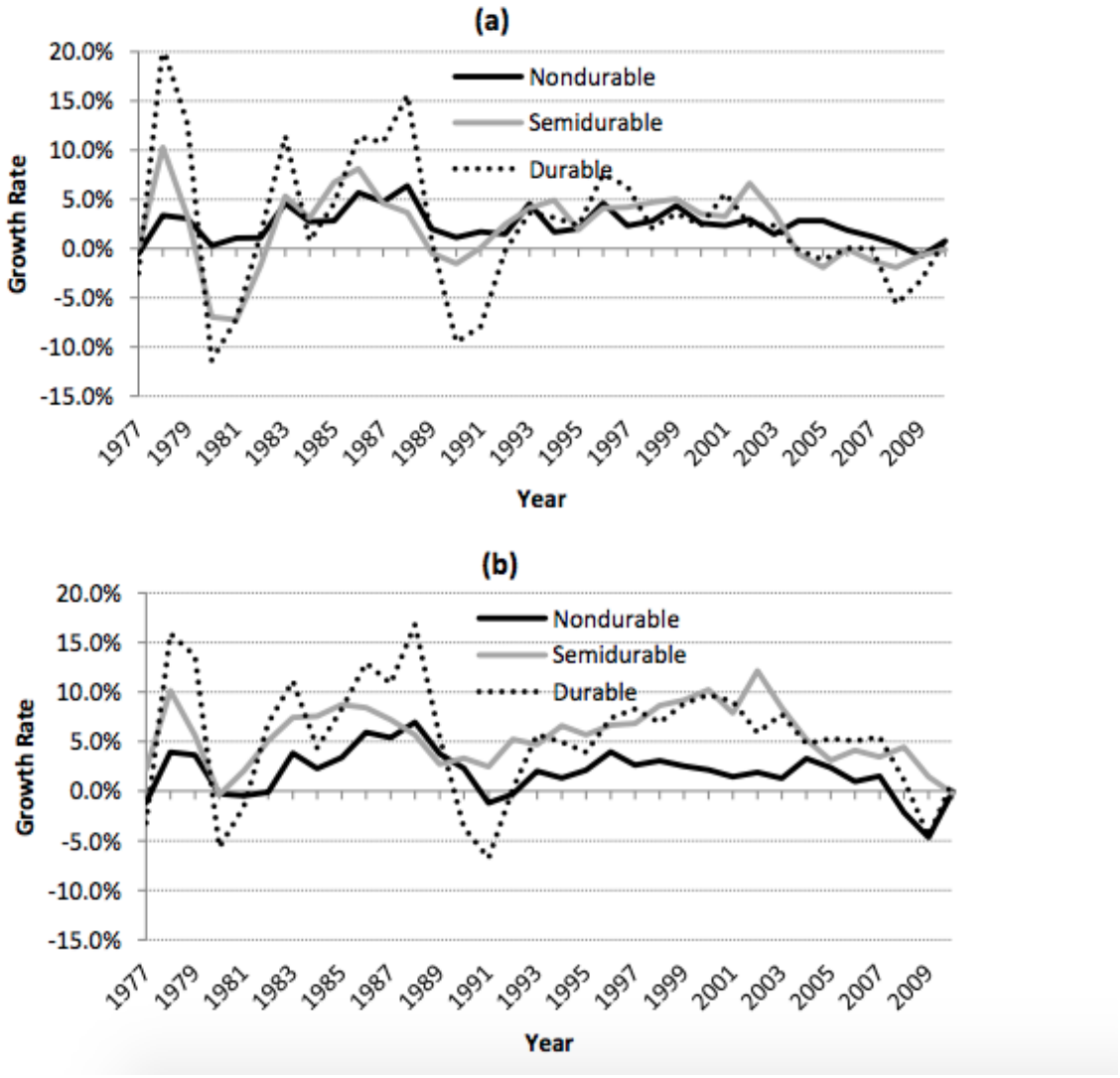
Figure 17, 18 and 19 show the sharp decrease in real GDP in the UK economy in 2008 and 2009. After 63 quarters of expansion, the UK economy got smaller for five quarters in a row. It was also the slowest recovery on record.

Figure 17: UK economic growth



Source: Office for National Statistics, UK GDP(O) low level aggregates

Figure 18: Growth rates in (a) spending and (b) volume of purchases, 1977-2010

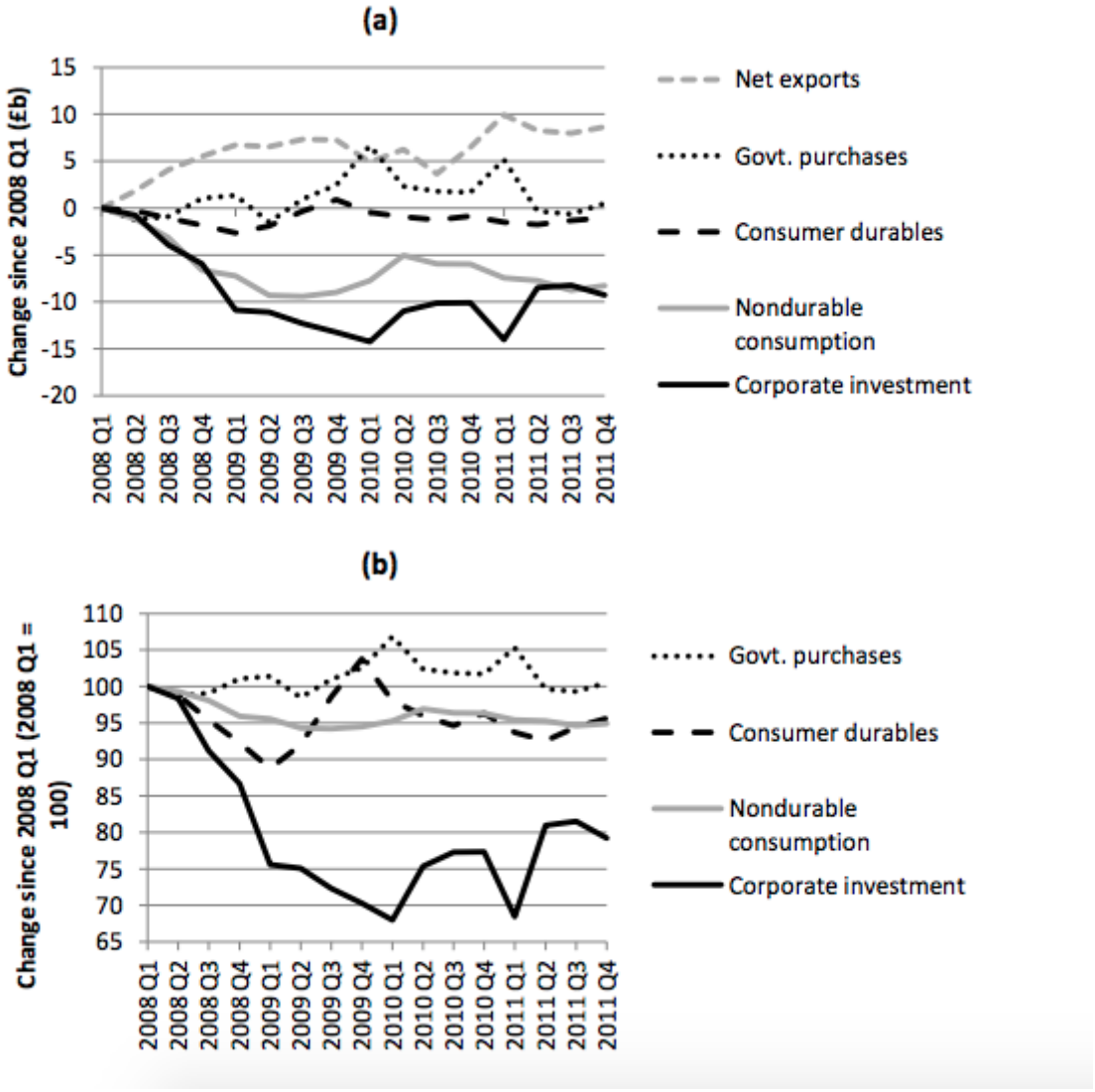


Note: calculation using UK Economic Accounts and Retail Prices Index. In panel (a) nominal quantities are converted into real quantities using the all-items Retail Prices Index. In panel (b), nominal quantities in each series are converted into a consistent volume measure using a price index specific to that series.

Figure (19) implies how the components of GDP have evolved 2008 Q1. Figure 19(a) reveals that household nondurable consumption was roughly equal contributions to the drop in GDP since the recession began - falling by a similar magnitude in the first year, then it stayed reasonably constant.

Figure 19(b) indicates the proportionate fall in each component over the period of the Great Recession. It implies the path taken by purchases of consumer durables. While non-durable consumption exhibited a greater (proportionate) drop, it started to recover sharly from the middle of 2009 and caught up with non durable consumption.

Figure 19: Paths of components of GDP since 2008 Q1



Source: UK National Economic Accounts.

Notes: Panel (a) shows changes measured in billions of pounds in each component of GDP since the first quarter in 2008. Panel (b) expresses these components as an index with the magnitude in the first quarter of 2008 set to 100.

The proportionate drop in durable purchases in the Great Recession was of a similar magnitude to the proportionate decline in nondurable purchases. Figure 20 indicates the time profile for household purchases of nondurables. The values are shown as an index based (at 100) in the quarter before the beginning of the recession. It is immediately obvious that the fall in household nondurable purchases was substantially deeper and had been longer lasting in the Great Recession than in the previous recessionary periods. In the Great Recession, by the 4th

quarter after the beginning of the recession (4th quarter, 2011) these purchases remained over 5% below the peak observed in the first quarter of 2008.

Figure 20: Trends in Household Nondurable Purchases Across Recessions

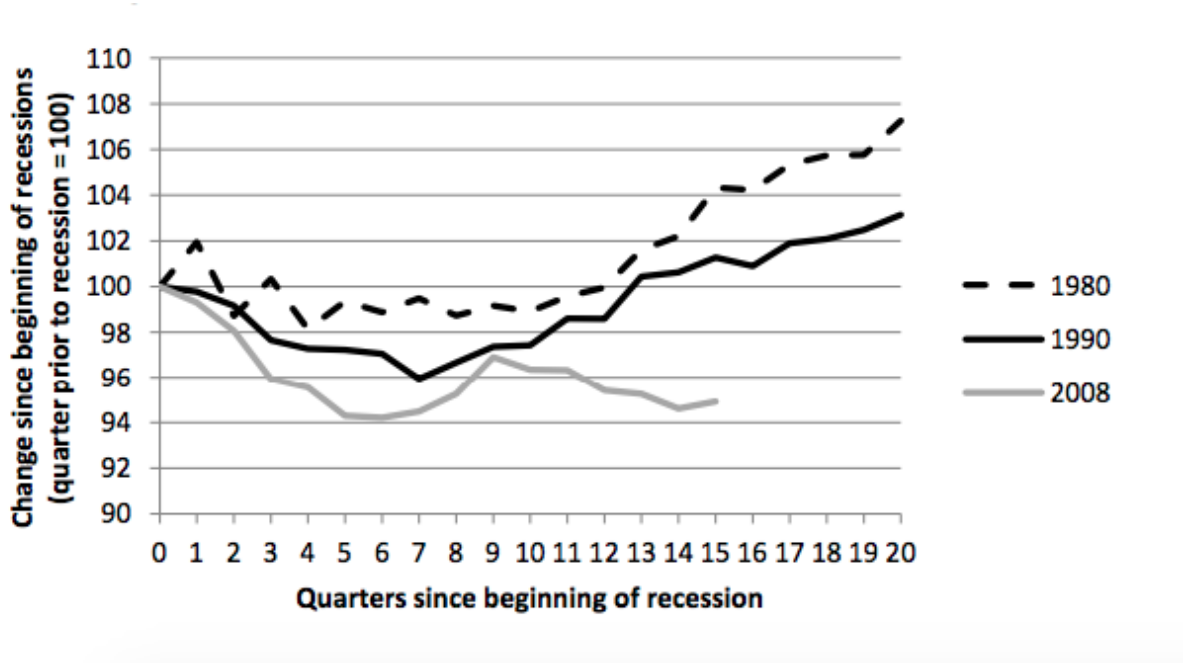
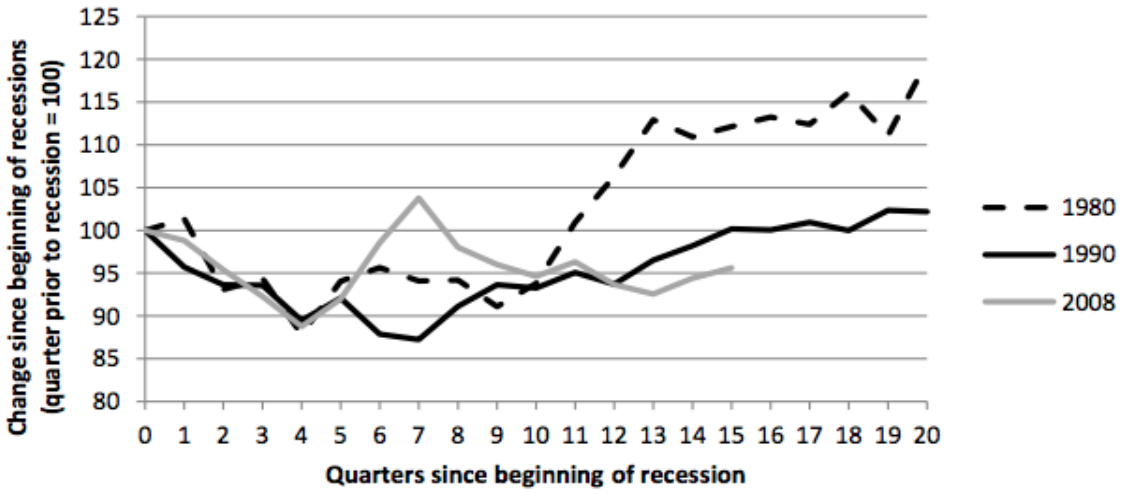


Figure 21 indicates the analogous trends for household purchases of durables. The initial path followed in each recession was similar with a cumulative drop in durable purchases on the order of 10% over the first year. In the great recession, there was a strong recovery.[3]

Figure 21: Trends in Household Durable Purchases over Recessions



Source: UK Economics Account

[3] Crossley, Thomas F.; Low, Hamish; O'Dea, Cormac (2011) : Household consumption through recent recessions, IFS Working Papers, No. W11/18, Institute for Fiscal Studies (IFS), London, http://dx.doi.org/10.1920/wp.ifs.2011.1118

There was a statistically significant and relatively large (at 6.1 percentage points per year) fall in the growth rate purchases of food. Between December 2007 and December 2009 there was an increase in the relative price of food (that is a rise in the price of food over and above the rise in the all-items Retail Prices Index) of 8%, which presumably interprets some of this fall.

2.2.3. In Japan

One of the major economies hit by the Great Recession was Japan. It was the only major advanced economy that experienced negative economic growth in 2008 and continues to contract sharply in 2009.

Figure 22: GDP growth (annual %) - Japan

Source: World Bank national accounts data, and OECD National Accounts data files

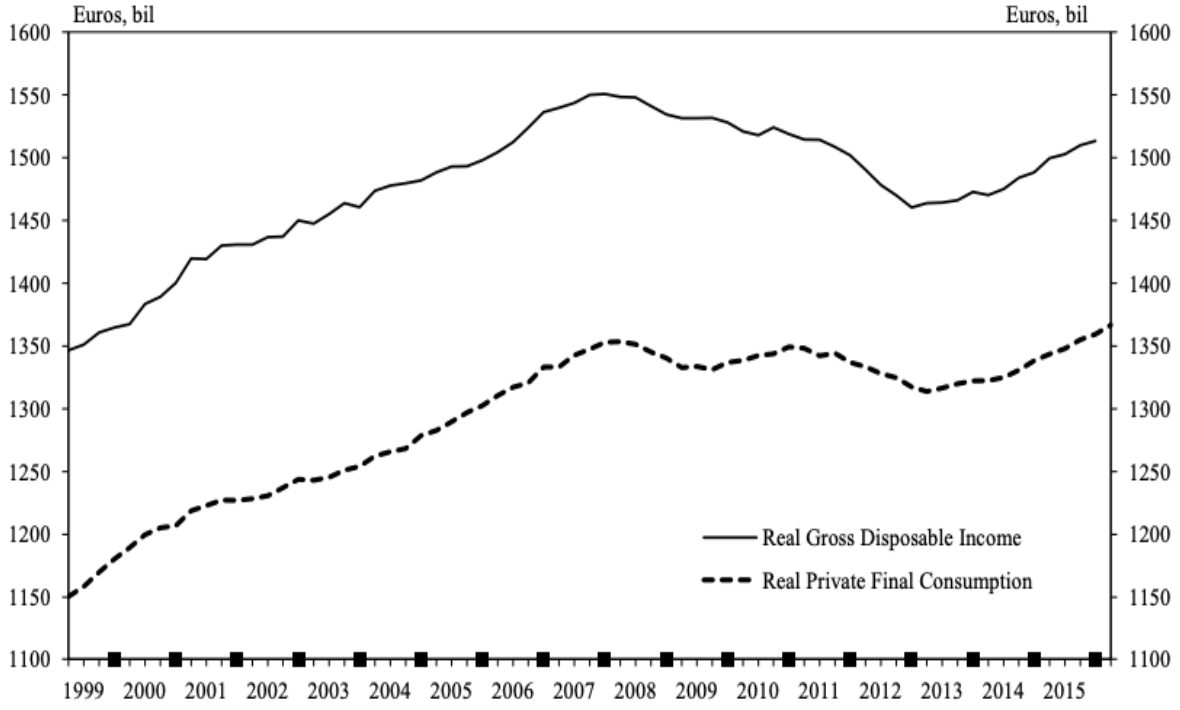
The recession affected consumer behavior. Starting in the 1990s, consumers began to be conscious of prices than they were in the 1980s when shopping. This is considered a significant change in Japan because the higher price has been associated with prestige in the past and that a more expensive product entails more brand value.[4]

[4] Pecotich, Anthony; Schultz, Clifford (2005). Handbook of Markets and Economies: East Asia, Southeast Asia, Australia, New Zealand. Armonk, NY: M.E. Sharpe. p. 307. ISBN 9780765636997.

2.2.4. In the Euro-area

As shown in Figure 23, the persistent drop in real income after 2007 Q3 was consistent with households forecasting a persistent decline in their income and consequently a contraction in the natural rate of interest. Blanchard and Gali (2007, 36) noted, "The effects of changes in factors such as the price of oil appear through their effects on natural output." The persistence of the commodity price shock first from 2004 to summer 2008 and then from 2009 through 2011 suggested a reduction in the natural rate of interest through pessimism about growth in natural output. It was also plausible that the risk of a disastrous outcome due to the possible breakup of the Eurozone in 2011 and 2012 exacerbated pessimism about future growth.[5]

Figure 23: Real Gross Disposable Income and Private Consumption



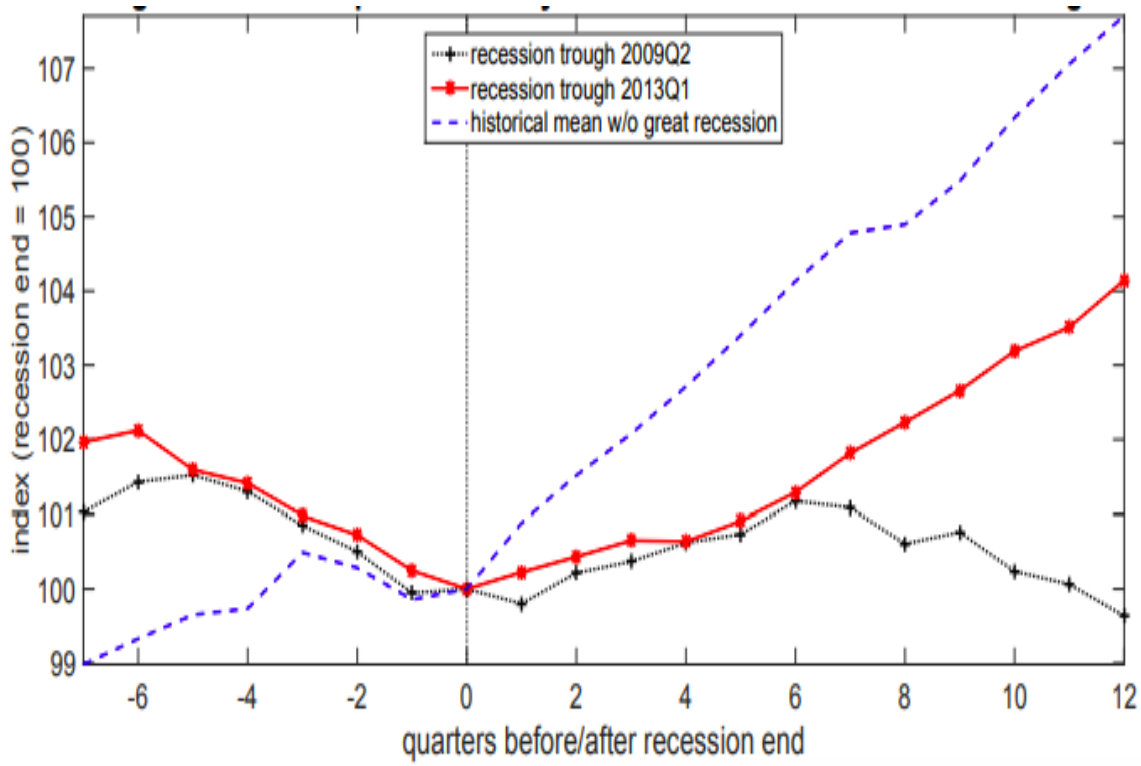
Notes: Real gross disposable income is gross disposable income divided by the harmonized consumer price index times 100.

Soure: European Central Bank

This phenomenon shown in Figure 24 suggests that the recovery in aggregate consumption had been substantially below the historical norm. From the first quarter of 2013 through the second quarter of 2016, consumption rose by 4.1%; the average historical increase in consumption 12 quarters after previous recession troughs is considerably higher at 7.8%.

[5] Robert L. Hetzel (2016): What caused the Great Recession in Eurozone, Working Paper No. 16-10, Federal Reserve Bank of Richmond, Research Department.

Figure 24: Consumption recovery in the euro area after recession trough



Soure: European Central Bank

From a historical perspective, the aggregate consumption that had been growing more slowly than usual.[6]

[6] Monthly Bulletin (2011) : Output, demand and the labour market, Economic and Monetary Developments, European Central Bank

III. THE GREAT RECESSION IN ITALY IN 2008-2009 AND THEN 2011-2012. EFFECTS ACROSS ITALIAN HOUSEHOLDS

1. The Great Recession in Italy in 2008-2009 and then 2011-2012

Likewise, in most of European countries, in Italy, the Great Recession occurred during the years 2008-2013, and it was the combination of the financial crisis initially originating in the United States and the United Kingdom, and the Euro sovereign debt crisis starting from 2011.

The economic downturn is having a major impact on production in Italy, with gross domestic product subtracting about 7 percentage points from GDP in 2008-2009 and unemployment rising to 7.8%. In 2008-09 GDP contracted by 6.3%, almost half the entire growth achieved in the ten preceding years.[7] Small companies, industrialized regions and production had been worst affected. In 2009, the Ministry for Economic Development had launched over 150 discussion tables with the social partners to find solutions to corporate and sectoral crises involving more than 300,000 workers.[8] Examples of these crises include: the home and professional appliances manufacturer Electrolux, the telecommunication services provider Eutelia-Agile, the healthcare company Glaxo SmithKline, the Termini Imerese plant in Sicily of the car manufacturer Fiat (IT1002019I), the car components manufacturer Oerlikon Graziano, the bathroom suites manufacturer Ideal Standard, the fashion group IT Holding, the telecommunications companies Italtel and Motorola, the furniture manufacturer Natuzzi, the steel pipes manufacturer Tenaris and the electronic and home appliances manufacturer Videocon (for details, see factsheets of the European Restructuring Monitor (ERM)).

In 2009, households' real income decreased by 3.4%, their consumption by 2.5%. Exports fell by 22%. Rapidly spreading uncertainty and the deteriorating outlook for demand led firms to reduce investment, causing it to drop by 16%. Wage supplementation rose to 12% of total hours worked in industry at the end of 2009. Employment diminished by 1.4%, the number of hours worked by 3.7%.[9]

Negative economic performance

In general, 2009 saw a widespread negative economic performance. Gross domestic product (GDP) in Italy diminished in real terms by five percentage points from its average value

7 Banca D'italia (2010), Annual report
8 Coletto, Diego (2010): Effects of economic crisis on Italian economy, European Foundation for the Improvement of Living and Working Condition
9 Banca D'italia (2010), Annual report

recorded in 2008 (Figure 25). As we knew from the National Institute of Statistics (Istituto nazionale di statistica, Istat), a similar fall in GDP had not been recorded since 1971.

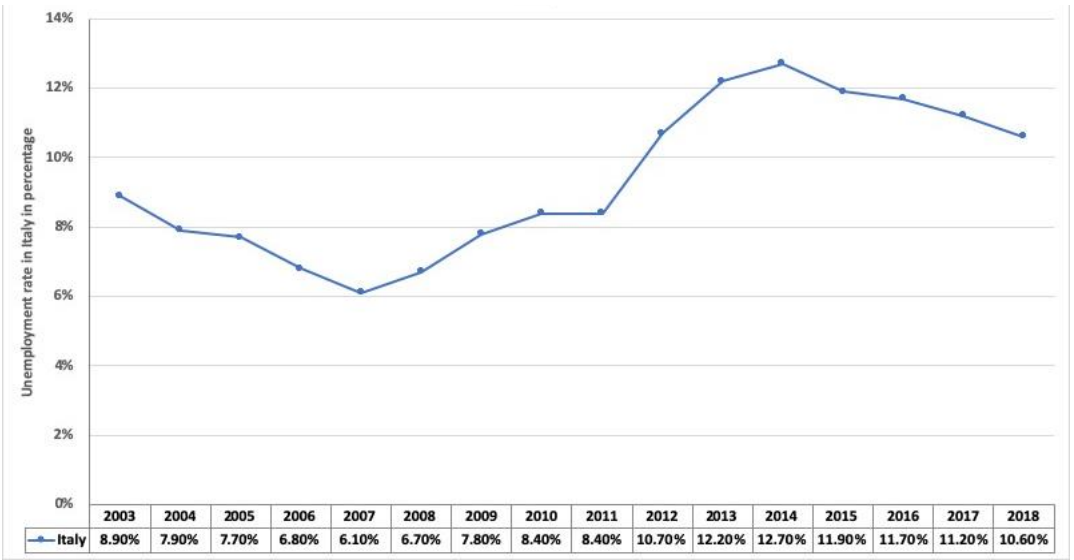
Figure 25: Growth rate - Real GDP per capita, Italy

Note: Growth rates are based on ISTAT data about Real Gross Domestic Product per capita (2010=100)

Source: ISTAT

Until 2014 when the economy had some recovery, still the growth rates could not reach its level pre-crisis. The marked downturn in the sales of domestically produced goods and services had significant effects on employment: on average, in 2009, the number of people in employment declined by 380,000 (-1.6% on an annual basis), while the unemployment rate rose to 7.8% (+1% compared with 2008). The unemployment rate continued to increase in the following years regardless of the growth rate recovery in the country.

Figure 26: Unemployment rate in Italy



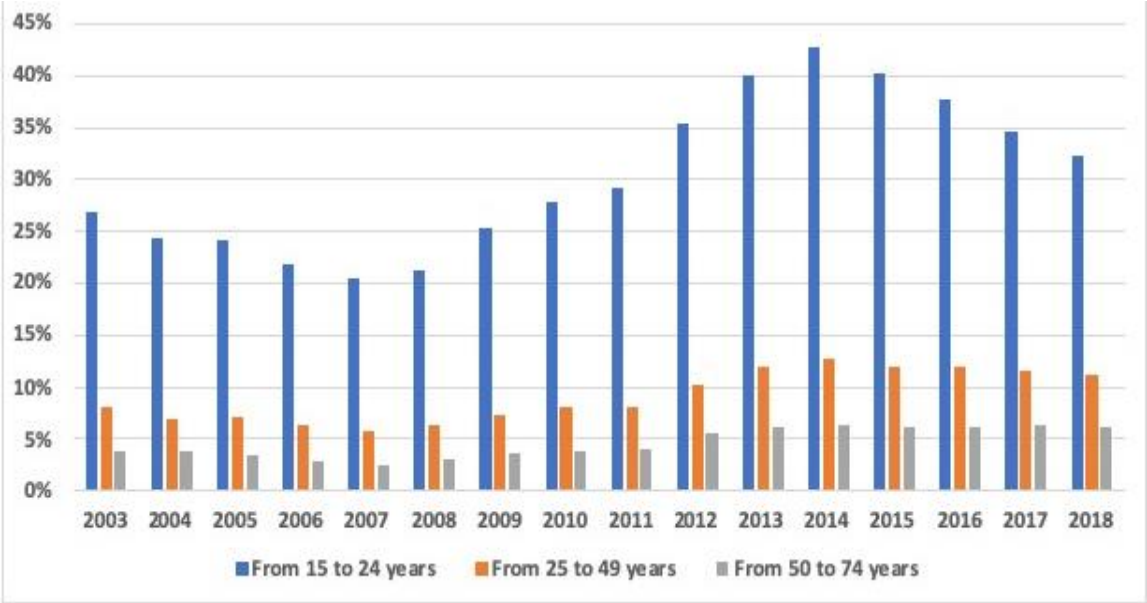
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Italy	8.90%	7.90%	7.70%	6.80%	6.10%	6.70%	7.80%	8.40%	8.40%	10.70%	12.20%	12.70%	11.90%	11.70%	11.20%	10.60%

Source: Eurostat

In detail, regarding the number of unemployed people, there was a surge in the unemployment rate in 2009, as in 2008, rising from 6.7% to 7.8%. Unemployment continued to increase in the first months of 2010: in January and February 2010, the unemployment rate reached 8.4%. The increase mainly affected the northern regions of the country, and it was closely related to the growth in the number of job losses due to the economic crisis.

Moreover, in 2010, the youth unemployment rate climbed up to 28.2%, a growth of a 0.8 percentage point on the previous month and of four percentage points in 2009. These figures confirmed the greater vulnerability of those occupying the most disadvantaged positions in the labour market as a result of the economic recession (Figure 27).

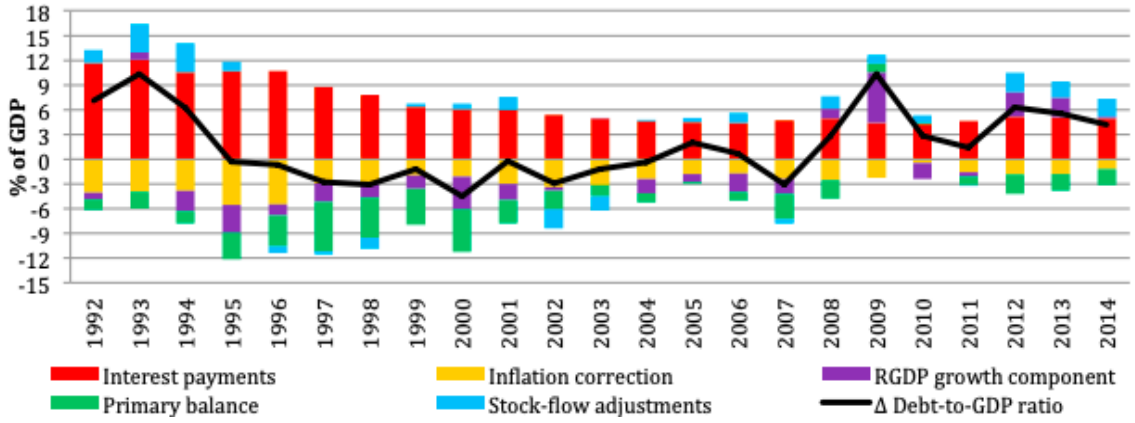
Figure 27: Unemployment rates in different age period, Italy



Source: Eurostat

Figure 28 demonstrates that interest payments as a percentage of total government liabilities had been relatively stable in Italy. Although the rate rose by around 25 basis points in 2011 Q4, it gradually decreased to its pre-euro-zone crisis levels.

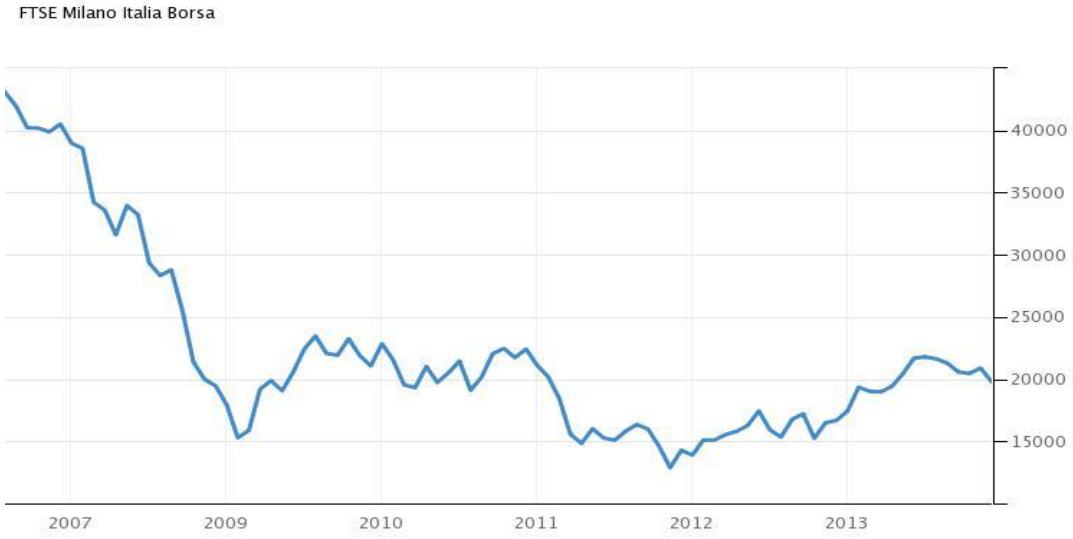
Figure 28: Decomposition of Italy's Debt-to-GDP Ratio



Source: IMF October 2014

Regarding financial assets, Bottazzi and Trucchi and Wakefield (2013) detected that a striking feature of the early part of the Great Recession was considered a sudden crash in the value of financial assets. "Major stock-market indices in the US and the UK approximately halved in value between peaks in autumn/summer 2007 and lows in March 2009". As shown in figure 29, the decline in value of Italy's FTSE- MIB was even more pronounced at roughly 70% between May 2007 and March 2009.[10]

Figure 29: Italy's FTSE - MIB



Source: FTSE via tradingeconomics for FTSE-MIB points

Italy's weak recovery following the global financial crisis terminated in the later half of 2011,

[10] Renata Bottazzi, et al (2013): Wealth Effects and the Consumption of Italian Households in the Great Recession, IFS Working Paper W13/21, Institute for Fiscal Studies, London

when the government securities market came under pressure. There ensued a vicious circle between the state of the public debt, of banks and credit, and of the real economy. Economic activity dropped by 2.4% in 2012. The contraction of economic activity in Italy in 2012 can be ascribed almost entirely to the repercussions of the sovereign debt crisis. The slowdown of the global economy, and the European economy in particular, constrained the growth of exports. Additionally, the contraction in confidence among businesses and households further dampened spending.

2. The effect of the Great Recession on Italian households

Table 1 illustrates an overview of sources and uses of income and household consumption in Italy distinguishing its non-durable, semi-durable and durable components from 2005 till the end of 2013.

In 2009 Italian household consumption shrank significantly, by 1.8% in volume, although less significantly than real disposable income. Purchases of durable goods dropped by 3.7%, pushing the cumulative decline over 10% in 2008-2009. Expenditure on non-durable goods decreased for the third consecutive year, by 1.9%.

In 2010, Italian household consumption increased by just 1.0% in volume, ending two years of contraction. Purchases of semi-durable goods increased by 4.1%, driven by spending on clothing. Those of non-durables, up by 1.0%, were again dampened by the stagnation of food consumption.

After recovering modestly in 2010, Italian household consumption stagnated in 2011, rising by 0.2% in real terms. In addition to the drop in purchases of non-durable goods (-0.8%) and semi-durable goods (-0.3%), purchases of durable goods decelerated by 1.8% in 2011 and by 12.9% over the period from 2008-2011.

In 2012, household spending shrank by 4.3%. According to Bank of Italy's annual report in 2013, more than half the reduction can be traced to the impact on disposable income of the budget adjustment measures and the unfavourable trend in employment, and to the deterioration in the assessment of the economic recession. All the main expenditure components decelerated; durable goods purchases dropped particularly sharply (by 12.7%)

Household expenditure at constant prices reduced more than real disposable income in 2013, by 2.6% as against 1.1%. The decline in consumption contracted progressively in 2013. The

household spending stayed some 8% below the level observed before the outbreak of the global financial crisis.

Table 1: Sources and uses of income and household consumption in Italy

Sources and uses of income and household consumption in Italy
(chain-linked volumes; billions of euros, reference year 2005)

	Sources and uses of income					Household domestic consumption					
	Uses					By type of consumption				By type of good	
	Investment in building and public works	Investment in machinery, equipment, transport equipment and intangible assets	Domestic consumption		Exports of goods and services (*fob*) (6)	Non-durable goods	Semi-durable goods	Durable goods	Services	Food products, beverages and tobacco products	Non-food products
			Domestic household expenditure	Public expenditure (5)							
2005	159.6	141.1	842.3	294.8	371.6	265.0	96.6	84.6	410.8	150.4	706.6
2006	161.5	149.4	853.8	296.5	402.9	266.5	97.3	87.1	418.8	153.0	716.8
2007	162.3	154.3	863.1	299.5	428.1	262.9	97.1	89.5	428.7	152.5	725.8
2008	157.7	147.0	856.2	301.1	416.0	258.7	96.1	83.5	430.9	147.4	722.1
2009	143.8	124.9	842.6	303.6	343.2	251.8	91.1	80.7	429.8	143.9	710.1
2010	137.3	133.5	855.4	302.4	382.2	254.5	95.8	80.5	435.8	144.3	723.0
2011	132.2	132.7	853.2	298.5	406.0	251.1	96.3	77.2	440.7	142.7	723.5
2012	124.1	119.5	818.9	290.9	414.6	240.6	87.7	67.9	435.0	138.4	694.5
2013	115.8	116.6	797.3	288.4	415.2	232.5	83.1	64.4	430.0	134.1	677.7
2011 – Q1	34.0	33.8	214.9	75.0	100.4	63.3	24.1	20.1	110.5	36.0	182.2
Q2	33.2	34.0	214.4	74.6	101.0	63.1	24.4	19.7	110.3	35.6	182.0
Q3	32.7	33.5	212.9	74.3	102.2	62.7	24.0	19.1	110.2	35.6	180.6
Q4	32.6	32.2	211.0	74.6	103.1	62.2	23.8	18.3	109.7	35.5	178.7
2012 – Q1	31.5	30.9	207.5	73.3	103.4	61.1	22.8	17.3	109.3	35.2	175.7
Q2	31.3	30.1	206.4	72.9	103.3	60.6	22.1	17.5	109.4	34.8	175.1
Q3	30.9	29.8	203.4	72.5	104.2	59.8	21.6	16.8	108.3	34.4	172.5
Q4	30.5	29.4	201.7	72.2	104.0	59.2	21.2	16.4	108.0	34.1	171.2
2013 – Q1	29.3	29.0	200.4	72.2	102.7	58.5	21.1	16.2	107.5	33.9	170.0
Q2	29.0	29.4	199.3	72.1	103.3	58.2	20.7	16.1	107.5	33.6	169.4
Q3	28.9	29.1	198.9	72.0	103.8	58.0	20.9	16.0	107.3	33.4	169.2
Q4	28.7	29.9	198.8	72.1	105.1	57.8	20.4	16.0	107.7	33.3	169.2

Source: Bank of Italy Statistical Appendix to the Abridged Report

(5) Spending by general government and non-profit institutions serving households.
(6) Includes non-residents' spending in Italy.

Here the decrease in consumption involved all the three kinds of goods but was sharpest for durable ones. Celidoni et al (2016) pointed out that the remarkable consequences of the Great Recession for Italian households in terms of disposable income and consumption suggested that this severe downturn had not only jeopardized the households' ability to sustain their living standard but also undermined the prospects for recovery, making a potentially temporary situation into a persistent one.

2.1. In the year 2008-2009

2.1.1. The effect of the Great Recession on Italian household consumption

In 2009 Italian household consumption reduced significantly, by 1.8% in volume, although less sharply than real disposable income (Table A). This accentuated a decade of weak growth, and per capita spending dropped back to the level of 1999.[11]

All the main categories of consumption were sharply affected. Purchases of durable goods dropped by 3.7%, pushing the cumulative decrease in 2008-2009 over 10%. Expenditure on non-durable goods diminished for the third consecutive fiscal year, by 1.9%. The contraction in purchases of semi-durable goods steepened to 5.5%, while the demand for services dropped by a relatively moderate 0.8%.

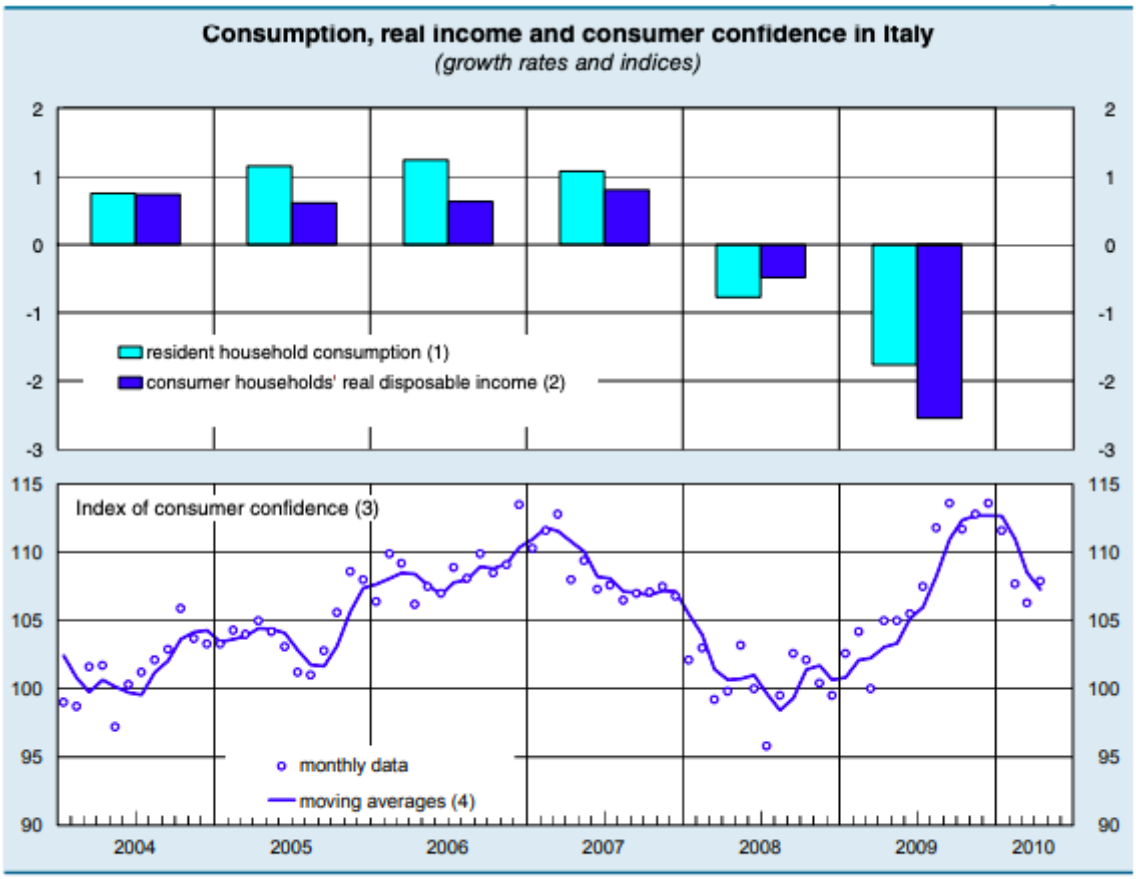
Consumption was held back by the decline in households' disposable income, of 2.5% in real and 2.7% in nominal terms (Table B). However, taking into account expectations of a smaller erosion of the real value of financial assets, the decline becomes less marked, amounting to 0.6%.

The detail data of Table A and Table B are presented in Appendix.

In detailed, households' prudence in spending partly revealed their concern over the impact of the recession on the labour market. According to ISAE surveys, the proportion of households expecting unemployment to increase peaked at 80% in March and did not decline below 60% at any time in 2009. Consumer confidence, which had strengthened somewhat once the acute phase of the crisis was over, started to slip again at the beginning of 2010, partly due to uncertainties about the soundness of household finances and the strength of the recovery (Figure 30).

[11] Banca D'Italia (2010), Annual Report - Abridged version, Ordinary Meeting of Shareholders 2009 - 116th Financial Year

Figure 30: Consumption, real income and consumer confidence in Italy



Sources: Based on Istat and ISAE data.
(1) Chain-linked volumes; percentage changes on previous year. – (2) Deflated using the resident household consumption deflator. – (3) Indices, 1980=100; seasonally adjusted data. – (4) For the three months ending in the reference month.

Source: Bank of Italy the Annual Report (Abridged version)

Given the reduction in disposable income, households' saving rate declined from 11.5% in 2008 to 10.8% in 2009, net of changes in households' net pension equity. Measured with reference to income adjusted for expected monetary erosion of financial assets, however, it increased by over 1 percentage point, to 9.9%.

Savings in the private sector, which in the case of firms are virtually equal to income, rose to 18.3% of gross national disposable income. For the economy as a whole, the saving rate decreased by around 2 percentage points, to 16.2%, owing to the negative contribution of general government.

2.1.2. The effect of the Great Recession on Italian households' financial saving and debt

- **Saving**

In 2009 the reduction in the disposable income of consumer and producer households translated into a decline in saving. During the year investment in real assets fell sharply and the financial surplus narrowed to €50 billion, equal to 3.3% of GDP (Table 2).

Table 2: Financial balances

Financial balances (1)
(millions of euros and percentages)

	2006	2007	2008	2009
Households (2)	43,222	35,589	55,170	49,670
Non-financial corporations	-37,821	-54,751	-79,917	-36,454
General government	-48,762	-23,748	-39,846	-77,182
Monetary financial institutions	-12,302	22,910	4,624	12,391
Other financial intermediaries (3)	11,498	12,213	25,686	10,992
Insurance companies (4)	12,364	-20,351	-16,878	16,014
Rest of the world account	31,801	28,137	51,162	24,568
As a percentage of GDP				
Households	2.9	2.3	3.5	3.3
Non-financial corporations	-2.5	-3.5	-5.1	-2.4
General government	-3.3	-1.5	-2.5	-5.1
Financial corporations (5)	0.8	1.0	0.9	2.6
Rest of the world account	2.1	1.8	3.3	1.6
As a percentage of GDP, adjusted for inflation (6)				
Households	1.7	0.2	2.1	3.0
Non-financial corporations	-1.8	-2.2	-4.2	-2.2
General government	-2.1	0.4	-1.3	-4.9

(1) Rounding may cause discrepancies in totals. – (2) Consumer households, producer households and non-profit institutions serving households. – (3) Includes financial auxiliaries. – (4) Includes pension funds. – (5) Monetary financial institutions, other financial intermediaries, insurance companies and financial auxiliaries. – (6) Only financial instruments denominated in euros with a fixed monetary value at maturity are taken into account in calculating the adjustment for inflation.

Source: Bank of Italy the Annual Report (Abridged version)

A large proportion of households' total wealth consists of real assets (63%), which are equal to over five times disposable income, one of the highest values in the main economies. The overall net wealth is concentrated: the most affluent 10% of households hold almost 45% of the total, while the share held by the bottom 60% is scarcely larger than that of the wealthiest 1%.

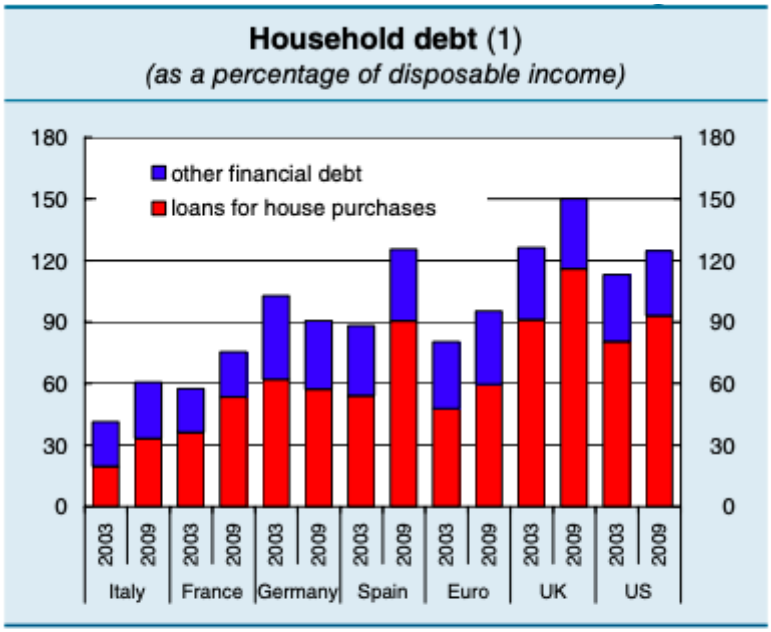
- **Household debt**

In 2009 household borrowing grew by 3.5% (5.8% in 2008). The expansion appeared more pronounced in the early months of 2010, especially for home mortgages. A similar picture emerged in the euro area, where growth was nonetheless more modest.

At the end of 2009, total financial debt exceeded 60% of disposable income (for all categories of household), an increase of almost 4 percentage points for the year. The level of debt remains lower than in the euro area (95%) or in the UK and United States (over 100%). The differences

are largely attributable to loans for house purchases, the main component of total household debt (Figure 31).

Figure 31: Household debt



Sources: Bank of Italy and Istat for Italy. For the other countries: Banque de France and INSEE for France, Deutsche Bundesbank for Germany, Banco de España for Spain, Eurostat and the ECB for the euro-area countries, Bank of England and Central Statistical Office for the UK, Federal Reserve System – Board of Governors and Bureau of Economic Analysis for the US.
(1) Consumer households, producer households and non-profit institutions. – (2) For the US, the data relate to consumer households and non-profit institutions serving households.

2.2. In the year 2011-2012

2.2.1. The effect of the Great Recession on Italian household consumption

After recovering moderately in 2010, Italian household consumption stagnated in 2011, rising by 0.2% in real terms. In addition to the decline in purchases of non-durable goods (-0.8%) and semi-durable goods (-0.3%), purchases of durable goods fell by 1.8% in 2011 and by 12.9% over the four previous years. Consumer households' spending decisions continued to be influenced by the decline in real disposable income, down by 0.6% in 2011 and by 4.9% since 2007. In 2011, despite the increase of 2.0% in nominal incomes, households' purchasing power was eroded by the faster rise in prices.

In 2012, household spending shrank by 4.3% in 2012 (Table 3). Per capita spending fell back to about the amount recorded in 1998. More than half the contraction can be traced to the impact on disposable income of the budget adjustment measures and the unfavourable trend in employment, and to the deterioration in the assessment of the economic situation.

All the main expenditure components decreased; durable goods purchases fell particularly sharply (by 12.7%), especially spending on furniture and transport equipment. New car registrations declined for the fifth straight year, falling 20% to 1.4 million, a thirty-year low. Purchases of semi-durable goods, mainly clothing and footwear, also fell sharply (by 9.4%), after stagnating in 2011. Consumption of non-durables – which serve needs that are hard to defer – declined by 4.5% (and spending on food alone by 3.0%). Purchases of services diminished more modestly, by 1.4%, after expanding 1.6% in 2011, as spending on housing and healthcare held up relatively well.

Table 3: Sources and uses of income

Sources and uses of income

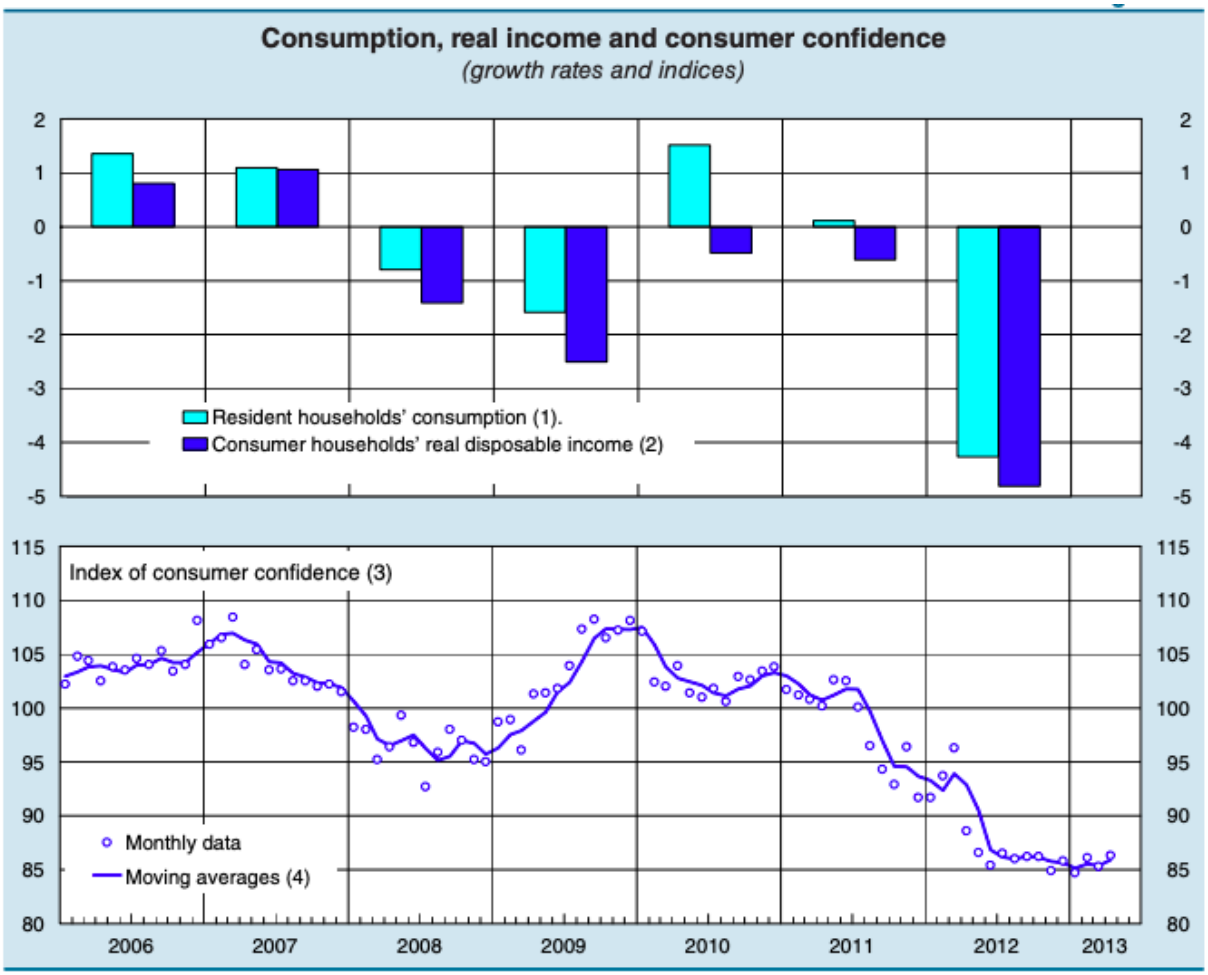
	Per cent of GDP in 2012 (volumes at previous-year prices)	2011			2012		
		Percentage changes		Contribution to GDP growth (chain-linked volumes)	Percentage changes		Contribution to GDP growth (chain-linked volumes)
		Chain-linked volumes	Deflators		Chain-linked volumes	Deflators	
Sources							
GDP	–	0.4	1.3	–	-2.4	1.6	–
Imports of goods *fob* and services (1)	28.6	0.5	7.6	-0.1	-7.7	3.1	2.3
of which: goods	*23.4*	*1.0*	*8.7*	*-0.2*	*-8.3*	*2.8*	*2.1*
Uses							
National demand	98.4	-1.0	2.3	-1.1	-5.3	2.0	-5.4
Consumption of resident households	60.0	0.1	2.9	0.1	-4.3	2.8	-2.6
Consumption of general government and non-profit institutions serving households	20.7	-1.2	-0.1	-0.3	-2.9	0.4	-0.6
Gross fixed investment	18.3	-1.8	3.3	-0.4	-8.0	1.3	-1.5
machinery, equipment and transport equipment	*7.4*	*-1.1*	*2.5*	*-0.1*	*-11.1*	*0.4*	*-0.9*
intangible assets	*1.1*	*-0.6*	*2.3*	*..*	*-2.0*	*0.7*	*..*
construction	*9.8*	*-2.6*	*4.2*	*-0.3*	*-6.2*	*2.2*	*-0.6*
Change in stocks and valuables (2)	–	–	–	-0.5	–	–	-0.6
Exports of goods *fob* and services (3)	30.2	5.9	4.1	1.6	2.3	1.9	0.7
of which: goods	*24.9*	*6.8*	*4.4*	*1.5*	*1.9*	*1.7*	*0.5*
Net exports	–	–	–	1.4	–	–	3.0

Source: Istat, national accounts.
(1) Includes residents' expenditure abroad. – (2) Includes statistical discrepancies. – (3) Includes non-residents' expenditure in Italy.

The magnitude of the contraction in consumer spending in 2012 was roughly on a par with the 4.8% decline in consumer households' real disposable income (Figure 32 and Table C - Appendix). In years past, despite unfavourable economic developments, households had acted to prop up consumption standards by limiting saving. When adjusted for the lesser monetary

erosion of the value of financial assets due to lower inflation, the decline in disposable income last year becomes somewhat less pronounced (about 4%).

Figure 32: Consumption, real income and consumer confidence



Source: Based on Istat data.
(1) Chain-linked volumes; percentage changes on previous year. – (2) Deflated using the resident households' consumption deflator. – (3) Indices, 2005=100; seasonally adjusted data. – (4) For the three months ending in the reference month.

2.2.2. The effect of the Great Recession on Italian household's saving and debt

- **Saving**

In 2011, consumer households' propensity to save fell by nearly one percentage point to 8.6%, (5.5% when measured with reference to disposable income adjusted for the expected monetary erosion of financial assets). The propensity to save of the private sector (households and firms) also decreased, albeit less, declining to 18.4% when measured with reference to national gross disposable income.

In 2012 the consumer household saving rate continued to diminish very slightly but reached a historic low of 7.9% of disposable income (compared with 12.3% in 2007). Spending decisions

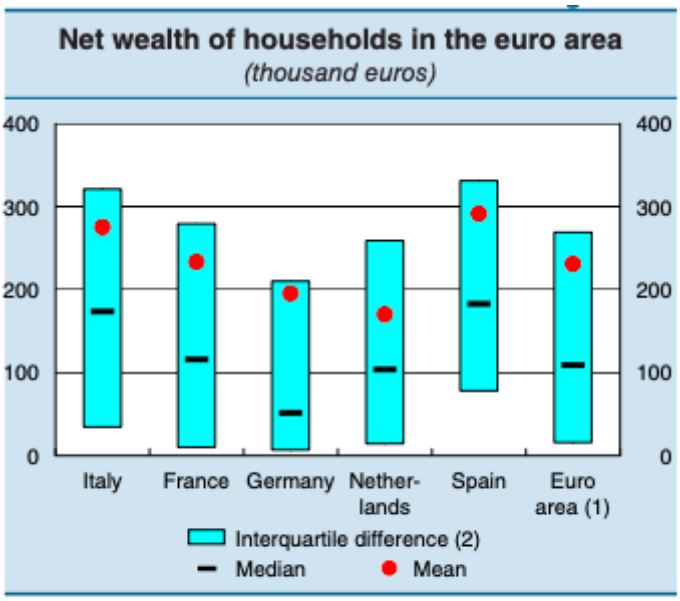
were also presumably influenced by mounting uncertainty about the economic outlook in general and the state of the labour market in particular (above figure).

- **Households' debt**

At the end of 2011 Italian households' financial debt stood at approximately 65% of disposable income, a fairly low level by international standards. Italian consumer and producer households' debt contracted in 2012 for the first time in fifteen years, although the decline was modest (0.7% compared with the stock at the end of 2011). Nevertheless, the ratio of financial debt to disposable income rose to 66% owing to the sharp decrease of income; the ratio remains low by international standards.

According to the first harmonized survey of euro-area household finance and consumption, in 2010 the average household in Italy had net wealth of €275,000, less than in Spain (€291,000) but more than in France (€233,000), Germany (€195,000) and the Netherlands (€170,000; Figure 33).

Figure 33: Net wealth of households in the euro are



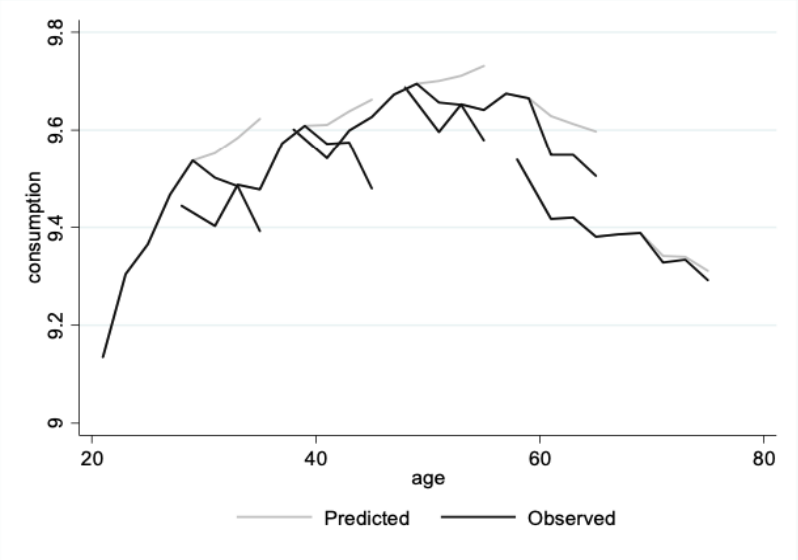
Source: "The Eurosystem Household Finance and Consumption Survey", ECB, April 2013.
(1) Fifteen countries; Estonia and Ireland did not take part in the first survey. – (2) Indicates the distance between the 25th and 75th percentiles.

To investigate the role of unemployment in shaping expenditure levels during the recession, Celidoni et al., 2016 considered a second specification:

$$X_{ht}^{c} = g\,(age, c) + \gamma Z_{ht}^{c} + \rho Z^{*c}_{ht} + \delta U_{t}^{c} + \sum_{t=2008}^{2012} \beta_{t}^{c} D_{t}^{c} + \epsilon_{ht}^{c}$$

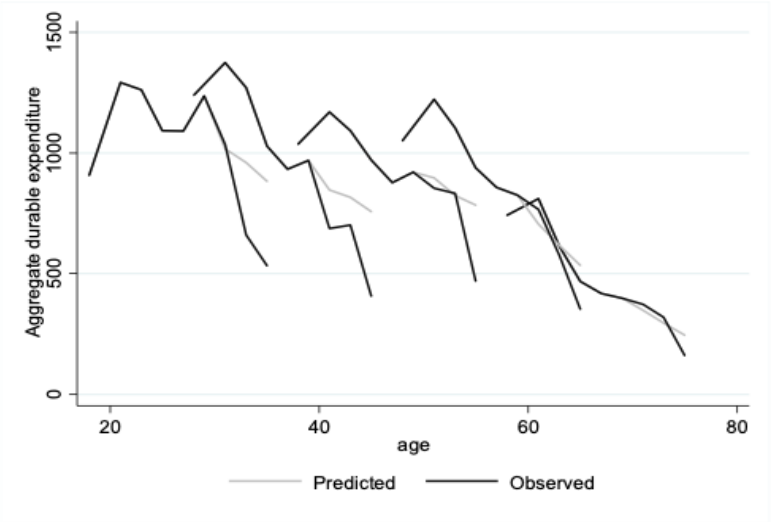
where $\boldsymbol{Z^{*c}_{ht}}$ is a vector of employment-related individual characteristics such as the proportion of retired members within the household that we assume to be mostly determined by long-term life- cycle considerations. $\boldsymbol{U^c_t}$ is instead a vector of employment related cohort-level variables (labour force participation, proportion of employees or self-employed among labour force participants, proportion of households with at least one person unemployed. They then showed predictions of consumption, income and wealth, keeping the cohort-level employment-related observable characteristics at their 2006 pre-crisis level for the treatment period (2008-2012). Following figures are what they found.

Figure 34: Non-durable consumption (logarithm)- baseline



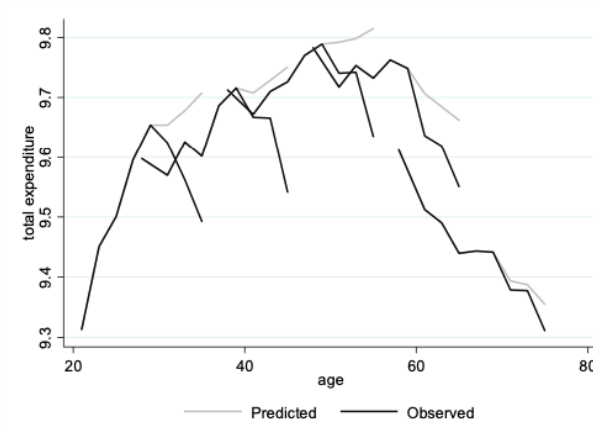
Note: Cohorts displayed: 1975-79 1965-69 1955-59 1945-49 1935-39

Figure 35: Durable expenditure (purchase and expenditure among buyers)- baseline



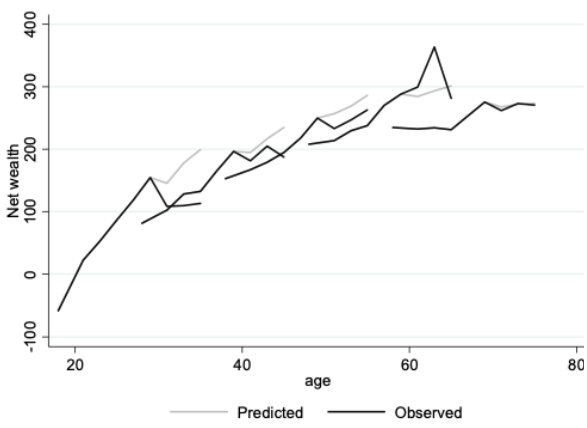
Note: Cohorts displayed: 1975-79 1965-69 1955-59 1945-49 1935-39

Figure 36: Total expenditure(logarithm) - baseline



Note: Cohorts displayed: 1975-79 1965-69 1955-59 1945-49 1935-39

Figure 37: Net wealth profile (logarithm) - baseline



Note: Cohorts displayed: 1975-79 1965-69 1955-59 1945-49 1935-39

Source: Micro data from SHIW, Household budget survey by ISTAT

The figure 37 shows the effects of the recession. Accordingly, the cohort 1975-1979 was on a steeply ascending net wealth direct, saw an actual reduction in net wealth in 2008, followed by minimal changes in 2010 and 2012. A possible interpretation is that in 2008 young consumers used their financial wealth (or even borrowed) to sustain consumption, while in 2010 and 2012 they allowed total expenditure to take the brunt of the income drop (as shown in Figure 36). The older working age cohorts shown in Figure 37 also spent their savings in 2008, but later kept accumulating wealth while reducing total spending. The cohort that reached retirement age during the crisis actually increased their average wealth more than predicted by the model (this is probably due to the receipt of severance pay upon retirement – a large, lump sum payment worth three years'salary for employees with uninterrupted careers), while the oldest cohort kept their wealth as expected.

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V. APPENDIX

Table A: Sources and uses of income in Italy

Sources and uses of income in Italy

	As a percentage of GDP in 2009 (volumes at previous-year prices)	2008			2009		
		Percentage changes		Contribution to GDP growth (chain-linked volumes)	Percentage changes		Contribution to GDP growth (chain-linked volumes)
		Chain-linked volumes	Deflators		Chain-linked volumes	Deflators	
Sources							
GDP	–	-1.3	2.8	–	-5.0	2.1	–
Imports of goods *fob* and services (1)	26.5	-4.3	6.8	1.3	-14.5	-6.1	4.3
of which: goods	*21.1*	*-5.4*	*8.5*	*1.3*	*-15.5*	*-7.7*	*3.7*
Uses							
National demand	101.9	-1.5	3.2	-1.5	-3.8	0.6	-3.8
Consumption of resident households	60.9	-0.8	3.2	-0.5	-1.8	-0.2	-1.0
Consumption of general government and non-profit institutions serving households	21.8	0.8	3.4	0.2	0.6	2.7	0.1
Gross fixed investment	19.2	-4.0	3.2	-0.8	-12.1	0.8	-2.5
machinery, equipment and transport equipment	*8.0*	*-4.7*	*3.0*	*-0.5*	*-16.6*	*0.5*	*-1.6*
intangible assets	*0.8*	*-1.0*	*1.7*	*..*	*-5.4*	*1.2*	*..*
construction	*10.4*	*-3.4*	*3.4*	*-0.4*	*-7.9*	*1.0*	*-0.8*
Change in stocks and valuables (2)	–	–	–	-0.3	–	–	-0.4
Exports of goods *fob* and services (3)	24.6	-3.9	5.1	-1.1	-19.1	-0.4	-5.5
of which: goods	*19.8*	*-4.0*	*5.4*	*-1.0*	*-20.4*	*-0.7*	*-4.8*
Net exports	–	–	–	0.1	–	–	-1.2

Source: Istat, national accounts.
(1) Includes residents' expenditure abroad. – (2) Includes statistical discrepancies. – (3) Includes non-residents' expenditure in Italy.

Source: Bank of Italy the Annual Report (Abridged version)

Table B: Gross disposable income and propensity to save in Italy

Gross disposable income and propensity to save in Italy
(at current prices, unless otherwise indicated)

	As a percentage of households' gross disposable income in 2009	2007	2008	2009
		Percentage changes		
Earnings net of social contributions charged to workers	42.8	3.6	3.2	-0.8
Income from salaried employment per standard labour unit	–	*2.4*	*3.6*	*2.0*
Total social contributions (1)	–	*-0.3*	*-0.5*	*-0.2*
Standard employee labour units	–	*1.5*	*0.1*	*-2.7*
Income from self-employment net of social contributions (2)	20.9	0.2	-1.5	-2.4
Income from self-employment per standard labour unit	–	*1.8*	*0.7*	*0.2*
Total social contributions (1)	–	*-1.2*	*-0.7*	..
Standard self-employed labour units	–	*-0.4*	*-1.5*	*-2.6*
Net property income (3)	23.8	6.3	3.1	-14.2
Social benefits and other net transfers	30.6	5.1	4.7	5.2
of which: net social benefits	–	*4.8*	*4.9*	*4.9*
Current taxes on income and wealth (–)	18.1	7.4	5.1	-3.1
Households' gross disposable income (4)	**100.0**	**3.3**	**2.2**	**-2.7**
in real terms (5)	–	0.9	-0.9	-2.5
in real terms, adjusted for expected inflation (5) (6)	–	0.3	-1.1	-0.6
in real terms, adjusted for past inflation (5) (7)	–	0.7	-0.4	..
Private sector gross disposable income	–	**3.0**	**1.4**	**-1.4**
in real terms (5)	–	0.7	-1.8	-1.2
in real terms, adjusted for expected inflation (5) (6)	–	0.3	-1.8	0.2
in real terms, adjusted for past inflation (5) (7)	–	0.7	-1.2	0.6
		Percentages		
Households' average propensity to save (4) (8)	–	**11.6**	**11.5**	**10.8**
calculated on income adjusted for expected inflation	–	9.1	8.8	9.9
calculated on income adjusted for past inflation	–	8.9	9.2	10.8
Private sector average propensity to save (8)	–	**23.3**	**22.5**	**22.9**
calculated on income adjusted for expected inflation	–	23.8	23.0	23.1
calculated on income adjusted for past inflation	–	23.8	22.9	22.9

Sources: Based on Bank of Italy and Istat data.
(1) Contribution of social contributions to the change in net income, in percentage points; negative values indicate an increase in social contributions relative to income. – (2) Mixed income and income withdrawn by members of quasi-corporations. – (3) Gross operating profit (essentially imputed rents), net rents from land and intangible assets, actual net interest, dividends and other profits distributed by companies. – (4) Consumer households. – (5) Deflated using the resident household consumption deflator. – (6) Gross disposable income net of expected losses on net financial assets due to inflation (estimated on the basis of the Consensus Economics survey). – (7) Gross disposable income net of actual losses on net financial assets owing to inflation, calculated ex post. – (8) Ratio of saving (before depreciation and amortization and not adjusted for changes in net equity of households in pension fund reserves) to the gross disposable income of the sector.

Source: Bank of Italy the Annual Report (Abridged version)

Table C: Gross disposable income and propensity to save

Gross disposable income and propensity to save
(at current prices, unless otherwise indicated)

	Per cent of households gross disposable income in 2012	2010	2011	2012
		Percentage changes		
Earnings net of social contributions charged to workers	43.9	1.7	2.1	-0.1
Income from salaried employment per standard labour unit	–	*3.0*	*1.3*	*1.1*
Total social contributions (1)	–	*0.3*	*0.3*	..
Standard employee labour units	–	*-1.5*	*0.5*	*-1.2*
Income from self-employment net of social contributions (2)	18.4	-0.1	1.7	-8.2
Income from self-employment per standard labour unit	–	..	*2.6*	*-6.1*
Total social contributions (1)	–	*-0.3*	*-0.2*	*-1.4*
Standard self-employed labour units	–	*0.1*	*-0.7*	*-0.9*
Net property income (3)	24.8	..	2.3	-0.9
Social benefits and other net transfers	32.1	2.5	1.2	2.2
of which: net social benefits	–	*2.6*	*2.2*	*2.0*
Current taxes on income and wealth (–)	19.2	2.7	0.1	5.5
Consumer households' gross disposable income	**100**	**1.0**	**2.2**	**-2.2**
in real terms (4)	–	-0.5	-0.6	-4.8
in real terms, adjusted for expected inflation (4) (5)	–	-1.6	-1.7	-4.4
in real terms, adjusted for past inflation (4) (6)	–	-2.5	-2.0	-3.8
Private sector gross disposable income	–	**1.7**	**2.3**	**-1.8**
in real terms (4)	–	0.2	-0.5	-4.5
in real terms, adjusted for expected inflation (4) (5)	–	-1.3	-2.0	-4.1
in real terms, adjusted for past inflation (4) (6)	–	-2.3	-2.3	-3.2
		Per cent		
Consumer households' average propensity to save (7)	–	**9.1**	**8.4**	**7.9**
calculated on income adjusted for expected inflation	–	7.1	5.4	5.2
calculated on income adjusted for past inflation	–	7.1	5.1	5.6
Private sector average propensity to save (7)	–	**23.0**	**22.5**	**22.3**
calculated on income adjusted for expected inflation	–	23.6	23.4	23.1
calculated on income adjusted for past inflation	–	23.6	23.5	23.0

Sources: Based on Bank of Italy and Istat data.

(1) Contribution of social contributions to the change in net income, in percentage points; negative values indicate an increase in social contributions relative to income.
(2) Mixed income and income withdrawn by members of quasi-corporations.
(3) Gross operating profit (primarily rental income), net rents from land and intangible assets, actual net interest, dividends and other profits distributed by companies.
(4) Deflated using the resident households' consumption deflator.
(5) Gross disposable income net of expected losses on net financial assets due to inflation (estimated on the basis of the Consensus Economics survey).
(6) Gross disposable income net of actual losses on net financial assets owing to inflation, calculated ex post.
(7) Ratio of saving (before depreciation and amortization and not adjusted for changes in net equity of households in pension fund reserves) to the gross disposable income of the sector.