

Effects of a recession on grocery sales

The financial crisis of 2007, the global recession that followed and its effects on the Finnish grocery market

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<p>Abstract:</p> <p>The financial crisis of 2007 began in the U.S., caused by a housing bubble and mistakes in government and corporate regulation. Due to financial globalization, the result was a global recession. Finland experienced a recession 2008 - 2009. The growth rate of GDP turned negative, unemployment increased, inflation slowed down and the trade surplus decreased. Additionally, consumer confidence in the economy of the nation declined.</p> <p>This thesis examines the effects of the 2008 - 2009 recession on the sales of groceries in Finland. The thesis answers how and why sales were affected like they were. Aggregate annual sales grew, but the growth slowed down markedly, from 8.1% in 2008 to 3.1% in 2009. Sales volume decreased by 0.5% over the same period. Employment of the grocery trade sector continued to grow through the recession. Net profit-% of the trade sector decreased, from 2.4% in 2007 to 1.5% in 2009.</p> <p>Research reveals several factors mitigating the effects of an economic downturn on the grocery trade. The oligopolistic nature of the market is significant. Large grocery groups have an established customer base and well-developed logistics. Private label goods are found to be an advantage to consumers, enabling them to buy roughly the same goods for less money during harder times. Compared to other retail trade sectors, grocery sales fared well during the recession, seeing only two months of negative annual growth. The implication is that larger purchases of durable goods can be postponed but groceries are essential to consumers, regardless of the state of the economy.</p>	
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1 INTRODUCTION

Food satisfies a basic physiological need and is an essential consumer good. In modern developed countries, other household items bought alongside food on a regular basis, such as toilet paper and soap, are next in order of importance. Together these items comprise groceries. Retail selling of groceries can thus be described as a safe business: people will always need groceries.

What happens to grocery trade when something in the global economy changes for the worse, and consumers feel like they have to tighten their purses? A consumer can put off larger, non-essential purchases, such as a new television set or a holiday trip.

Groceries are still essential. Besides postponing larger purchases, consumers can save by purchasing less groceries or switch to cheaper brands.

1.1 Motivation for choice of topic

The financial crisis of 2007, and the recession that followed it, are recent events. The causes for and full effects of these events have become clear only during the last couple of years. Groceries are a mundane, unsuspenseful trade. It is not a trade that gains a lot of attention from the media and consumers take it for granted. It is, however, an absolutely essential part of any modern nation. For this reason, grocery trade is examined instead of other trade sectors.

Additionally, the author has worked in the grocery trade for several years and followed the financial crisis and the recession since the very beginning.

1.2 Aim of the study

The aim of the study is to determine how Finnish grocery sales as a whole are affected by a recession. This is achieved by studying the 2008 - 2009 recession in Finland and changes in the Finnish grocery trade during this period.

1.3 Research questions

The following research questions were formed:

1. How were sales of groceries in Finland affected by the 2008 - 2009 recession?
2. What factors mitigated or exacerbated the effects of the recession on sales of groceries?

The primary question implicitly ascertains whether grocery sales were affected in any way by the economic downturn and, if so, in what way. The secondary question examines whether any characteristics of the grocery trade mitigate or worsen the effects of a recession.

1.4 Limitations

The research looks at variables on a national and global scale. Due to the broad nature of the research, strict limitations had to be made. Only the recent, arguably still continuing, recession is examined. Macroeconomic indicators were limited to what the literature considered key variables. Regarding grocery sales, research was limited to only include Finland.

1.5 Theoretical framework

Information on the financial crisis in the U.S. was largely compiled from the recently published report by the Financial Crisis Inquiry Commission and works by Paul Krugman and Todd A. Knoop.

To quantify the macroeconomic effects of a recession, key macroeconomic variables are explained. Macroeconomic theory is largely based on Alain Anderton's textbook

Economics. The macroeconomic theory part provides the reader with the information required to understand the major effects of a recession in general. The effects of the recent recession on key macroeconomic variables are examined both globally and in Finland. Data on global variables was gathered from the web pages of the International Monetary Fund. Statistics Finland's online database was used for data on Finland's economy.

In the fifth chapter, microeconomic theory is utilized to explain characteristics of the Finnish grocery trade. Theory is largely based on the textbook *Microeconomics* by Pindyck & Rubinfeld.

1.6 Methods

Information on the Finnish grocery market and data on sales during the recession was largely gathered from publications and bulletins published by the Finnish Grocery Trade Association (FGTA). The FGTA consists of companies in the grocery trade and the association's goal is to improve grocery trade, both in general and for its member groups. National data related to grocery trade, such as consumer prices and confidence, was gathered from Statistics Finland's online database.

There are some discrepancies between aggregate figures on grocery sales acquired from publications of the FGTA and those from Statistics Finland. The former includes its member groups, who together cover the vast majority of the market (about 95 percent). The latter covers all sales in Finland, but does not offer company-specific figures. By and large, figures from the FGTA are used because they offer a much more detailed view of the market and because the difference in market coverage of the FGTA and Statistics Finland is negligible.

Data on grocery sales and national economic performance was analyzed. Grocery sales value, volume and profit is analyzed in comparison to preceding years to see how the sales were developing before the recession. Changes in the sales growth of grocery retailing is compared to that of other retail trade sectors. This comparison tells us how

well groceries weathered the downturn compared to other sectors, and, additionally, it enables us to see how a decrease in consumer spending is visible in retailing of different kinds of consumer goods.

2 THE FINANCIAL CRISIS OF 2007

The first warning signs of the financial crisis of 2007 were problems at two banks: Northern Rock, the fourth largest bank in England, and Countrywide bank in the United States. Both were heavily invested in the subprime mortgage market in the U.S. and had to attain an emergency loan and a merger, respectively, in late 2007. In March 2008, the American investment bank Bear Stearns failed and had to be sold. This was followed by the U.S. government's nationalization of all of the assets of the mortgage securitization corporations Fannie Mae and Freddie Mac. Together they held assets of almost € trillion dollars. (Knoop 2010 p. 241.)

Several financial institutions merged, were bailed out by the government or were given loans by the Federal Reserve. The crisis turned severe on September 14, when the investment bank Lehman Brothers failed, putting other large investment banks in the U.S. in danger. The largest insurance firm in the world, AIG, was on the brink of failure. After bailing out institutions one by one, the U.S. government passed the \$700 billion dollar Troubled Asset Relief Program (TARP). The goal of the TARP was to act as a fund for helping troubled financial institutions so they would start lending again. (Knoop 2010 p. 241-242.)

The financial crisis of 2007 had its roots in the United States, but quickly spread around the world. It was a global crisis, and the result was a global recession.

2.1 The United States housing bubble

The U.S. housing bubble was born in the wake of the dot-com bubble in the early 2000s. Americans have for a long time seen houses as a good investment. At the time, interest rates were very low. The result was an increase in mortgages being taken, which sent house prices upward. (Krugman 2009 p. 148.)

The housing bubble in the United States was the largest contributor to the financial crisis. A housing bubble, like other asset bubbles, is like a natural Ponzi scheme; people

keep making money as long as there are more people who are willing to invest. (Krugman 2009 p. 147). In the case of the housing bubble, as long as housing prices kept rising, houses were seen as a good investment. As more and more people wanted to invest in houses, the demand for mortgages increased. The prevailing belief, that housing prices would continue to rise (because they had done so in the past), combined with the increased demand for mortgages, paved the way for subprime loans and increased securitization.

2.2 Causes of the financial crisis

Several causes for the financial crisis have been identified, many of which were not visible at the time, but only in hindsight. The housing bubble was an underlying reason for the financial crisis. There were, however, several other factors behind the financial crisis.

The Financial Crisis Inquiry Commission (FCIC) was created in May 2009 to “examine the causes of the current financial and economic crisis in the United States.” (FCIC 2011 p. *xi*). In January 2011 the FCIC concluded its research and released a comprehensive report that identifies the key causes of the financial crisis.

2.2.1 Financial innovation

Knoop (2010) identifies financial innovation and development, largely fueled by improvements in information technology, as an underlying cause of the financial crisis. He indicates securitization of home mortgages as the most significant form of financial innovation, something that started in the early 1980s in the United States. (Knoop 2010 p. 233.)

Securitization is the process of turning assets that are difficult to sell into assets that are liquid and easy to sell. A good example of an illiquid asset is a home mortgage; each home mortgage is unique with a different principal amount, maturity, and default risk

and so on. Traditionally, a mortgage was issued by a bank which then held on to this mortgage until the homeowner paid the mortgage off. In the 1980s, investment banks realized that by pooling mortgages into so-called mortgage-backed securities (MBS), where each mortgage was unique and unpredictable, their aggregate behavior became predictable; financial analysts could now calculate the risk associated with a pool of mortgages, as the individual irregularities would average out. (Knoop 2010 p. 233.)

According to Krugman (2009), the financial innovation called collateralized debt obligation (CDO) was a major factor in the financial crisis. The CDOs made it possible to securitize subprime mortgages, that is, loans to borrowers of a higher default risk. The CDOs offered shares in the payments from a mortgage pool. Some of these shares were 'senior' and others less senior. When payments were made, claimants of senior shares would be paid first, after which came the less senior shares. This made senior shares seem so safe that rating agencies classified them as AAA, the highest rating available. The result was a new source of financing for subprime lending, namely institutional investors, such as pension funds, that only buy AAA securities. (Krugman 2009 p. 149-150.)

2.2.2 Failures in financial regulation and supervision

The crisis was the result of human action and inaction, and so the crisis was avoidable. The people at the highest levels of financial institutions and those overseeing the financial system failed to identify, or in some cases ignored, the warnings. According to the FCIC (2011), "theirs was a big miss, not a stumble." Despite all the warning signs, such as the increase in risky loans and the inflating housing bubble, nothing meaningful was done. The Federal Reserve, whose responsibility it is to maintain economic stability (FRB 2007), failed miserably in stopping the increase of bad mortgages. (FCIC 2011 p. xvii.)

The key policy makers, whose duty it is to watch over the markets, were not prepared for the events of 2007 and 2008. They failed to identify the fact that securitization of mortgages concentrated risk instead of spreading it out. The government did have a

vague idea of the inflating housing bubble, but failed to recognize that a bursting of the bubble would put the entire financial system in jeopardy. (FCIC 2011 p. *xxi*.)

The effects of the crisis were exacerbated by the government's inconsistent response, mainly the bailout of only some financial institutions. Knoop (2010) states that bailouts should be "overwhelming, quick and indiscriminate." The decision by the U.S. government to bailout several institutions but let Lehman Brothers fail, was a mistake. This led to uncertainty; would the next troubled firm be rescued or not? Additionally, the bailout packages to different institutions had different terms, which led to a perception of favoritism. Bailouts should be large enough, and have equal terms, to convince investors that things are under control. (Knoop 2010 p. 247-248.)

2.2.3 Deregulation of the financial industry

For more than 30 years, supported by several different administrations, the U.S. government deregulated the financial industry, allowing the proliferation of mortgage securitization. Even though the regulators had the power to nip the crisis in the bud, they did not do so. (FCIC 2010 p. *xviii*). An example of significant deregulation was the Gramm-Leach-Bliley Act, which was enacted in 1999. This act repealed parts of the Glass-Steagall Act of 1933, the purpose of which was to separate commercial banking from the securities business. (Barth et al. 2000 p. 1). This change allowed commercial banks to get into the investment banking business and thereby take on more risks. (Krugman 2009 p. 163). Such deregulation was in no small part the result of effective lobbying; from 1999 to 2008, the financial sector spent \$2.7 billion on lobbying. (FCIC 2010 p. *xviii*).

Some have indicated the Community Reinvestment Act (CRA) as a culprit. The CRA was enacted to encourage lending to minority home buyers. These borrowers then defaulted on their mortgages. However, Krugman (2010) points out that the act was passed a long time ago, in 1977, which makes it an unlikely cause for the crisis. Additionally, only depository banks were subject to the act, and these banks were responsible only for a small part of the bad loans behind the housing bubble. (Krugman

2009 p. 162). The FCIC confirms this view, their conclusion being that the CRA was not a significant factor in subprime lending or the crisis. (FCIC 2010 p. *xxvii*).

2.2.4 Failures in corporate governance and excessive risk-taking

There was a general view in financial firms that excessive risk-taking would be avoided solely because this would cause trouble for the firm itself. In other words, the view was that excessive risk would not be taken, simply because it would hurt the firm. There was a lack of internal regulation which, in time, led to increasingly risky trading activities with hefty profits in sight. In too many instances financial institutions relied on mathematical models as reliable ways of predicting risk. This was worsened by the way investments were rewarded. Investors could borrow money, practically without fear of regulation getting in the way, and put this money into risky investments where the potential payoff was large. If a deal went sour, you would lose borrowed money. If the outcome was favorable, both the institution and the individual investor would be rewarded. (FCIC 2011 p. *xix*.)

2.2.5 Excessive borrowing and moral hazard

Financial institutions borrowed money far beyond what was prudent. This borrowed money was invested further, leaving institutions with very little capital. Leverage-ratios were as high as 40 to 1. This meant an institution had only one dollar of capital for every 40 dollars in assets. A sudden decline in asset values would thus easily eat up all the capital. During the years leading up to the crisis, borrowed money was increasingly invested in risky assets connected to real estate. (FCIC 2011 p. *xix-xx*.)

Households also borrowed too much. The constant increase in housing prices made houses seem like a good investment. People took out mortgages without considering the long-term consequences. For example, almost one in 10 mortgage borrowers between the years 2005 and 2006 took out so-called option-ARM loans. ARM stands for adjustable-rate mortgage. In practice this meant the borrower could choose to make

mortgage payments so small that their mortgage balance actually rose every month. (FCIC 2011 p. xx.)

During the boom years of the housing bubble, lenders made loans they knew borrowers could not afford. The percentage of borrowers who defaulted on their mortgages within a couple of months of taking the loan nearly doubled between the summer of 2006 and late 2007. (FCIC 2011 p. xxii). Mortgage brokers were paid according to the interest rate of the mortgages they signed; the higher the interest rate on the mortgage, the more the broker was paid, leading to what is known as moral hazard. Brokers were tempted to offer mortgages of higher interest rates because the consequences of a default would not affect the brokers themselves. (FCIC 2011 p. 90).

2.3 The significance of the United States in the financial crisis

The United States is still the world's largest economy and, as such, it is important to establish the significance of globalization of financial markets and how this enabled events in the United States to affect the rest of the world on an unprecedented scale.

According to Krugman (2009), besides the growth of the shadow banking system, the transformation in the character of the financial system over the past fifteen years is the reason why the United States affects the rest of the world. This transformation, which has led to investors increasingly holding large stakes in other countries, is called financial globalization. This change was supposed to reduce risk; U.S. investors were supposed to avoid the worst slumps in America, and, conversely, foreign investors, by investing heavily in the United States, were supposed to be less exposed to slumps in their respective regions' economies. However, much of all this investment was made by highly leveraged financial institutions. The result was that trouble in the U.S. housing market (the bursting of the bubble) sparked crises overseas. Similarly crises overseas were felt in the U.S. (Krugman 2009 p. 177.)

An indicator of financial globalization is foreign direct investment (FDI), which is money that flows from country to country and is used to buy assets in the receiving

country. (Anderton 2008 p. 725). During the formation of the housing bubble, FDI in the United States increased significantly.

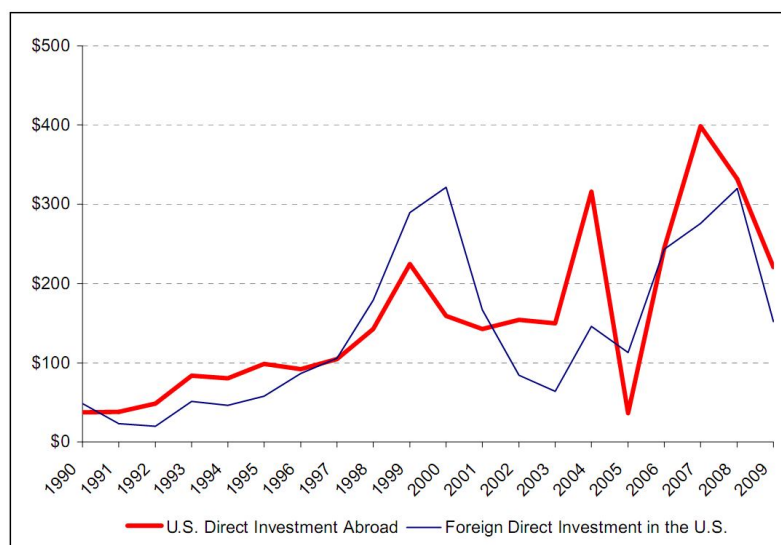


Figure 1. Foreign Direct Investment in the United States and U.S. Direct Investment Abroad, Annual Flows, 1990-2009 (in billions of dollar.). (Jackson 2011.)

Figure 1 shows the annual FDI flow in the United States and U.S. direct investment abroad. FDI in the U.S. had been rapidly climbing since 2003. In 2008 alone, over \$300 billion flowed into the United States. U.S. direct investment abroad has, similarly, increased immensely, reaching a peak of \$400 billion in 2007. Flows of investments, in both directions, saw a very sharp decline, similar to what happened after the year 2000 when the IT bubble burst. It is worth noting that flows from the U.S. abroad, in both 2000 and 2007 – 2008, declined before FDI in the U.S. did.

3 MACROECONOMIC VARIABLES IN A RECESSION

3.1 National economic performance

National economic performance can be measured in a number of different ways. Four key macroeconomic variables are the economic growth rate, unemployment, inflation and the current account balance. (Anderton 2008 p. 129.)

3.1.1 Economic growth and business cycles

Economic growth is typically measured by the rate of change of output or gross domestic product (GDP). GDP is the value of all goods and services produced in an economy. In the case of measuring economic growth, real GDP is used, which is adjusted for changes in prices. This is opposed to nominal GDP, which includes changes in prices. (Anderton 2008 p. 188-189.)

Falling economic growth does not mean that the level of GDP is falling. If, for example, China is growing at 10 percent per year and its growth rate fell to 2 percent, its GDP would still be rising, just not as fast as before. The important distinction here is between the level of GDP and the rate of growth of GDP. Only if the rate of growth of GDP became negative would GDP be falling. (Anderton 2008 p. 189.)

Economic growth is desirable in the long term, that is, the level of GDP should rise. However, in the short term, GDP fluctuates around the long term rate of growth. These fluctuations are known as the business cycle. (Anderton 2008 p. 185.)

Figure 2 illustrates the four main phases of a business cycle. During a peak or boom, GDP is growing particularly fast. Unemployment is likely to be low and spending high. The rate of growth of GDP is likely to be above its long term trend (trend growth line). Higher demand leads to inflationary pressures. Companies increase investments to be able to handle increased demand. (Anderton 2008 p. 185.)

After a peak has been reached, the economy slows down. This is called a downturn. During this period, the rate of growth of GDP will be falling and unemployment will be rising. Consumer and investment spending drop and inflationary pressures are reduced. (Anderton 2008 p. 185.)

At the bottom of the business cycle, the rate of growth of GDP is close to zero or negative. This period is called a recession or trough or slump or depression. In a recession, unemployment will be high and possibly still rising. Both consumers and companies cut back on spending and borrowing. Inflation will be low (or even negative). (Anderton 2008 p. 185.)

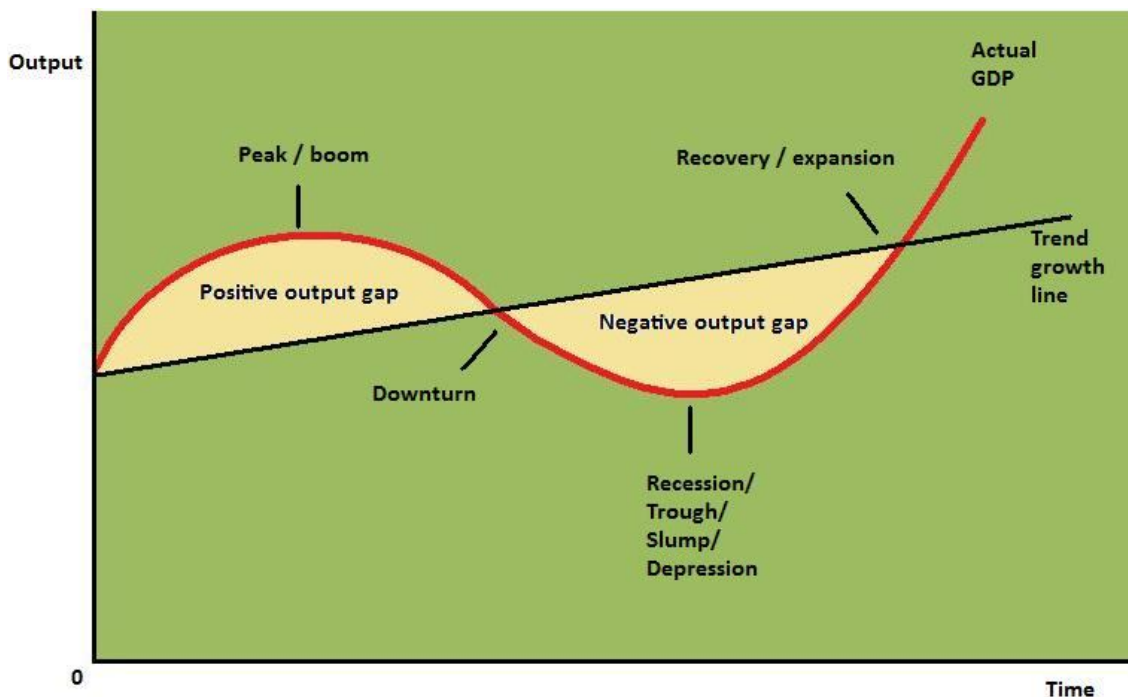


Figure 2. The business cycle and the output gap. (Figure by author, based on Anderton 2008 p. 185-186).

There are two major reasons for short term fluctuations around the long term trend. A demand-side shock affects aggregate (total) demand. This could be a sudden collapse in stock market prices or the central bank may raise interest rates. A demand-side shock could also be a global recession, which, due to financial globalization, affects exports of another economy, sending it, too, into recession. (Anderton 2008 p. 186.)

The other reason for fluctuations is a supply-side shock, which affects aggregate supply. This could be a rise in commodity prices (crude oil, sugar, coffee beans and so on). This in turn leads to higher price levels, leading to lower consumer spending and a recession. (Anderton 2008 p. 186.)

The difference between the actual level of GDP and its estimated long term value at a point in time is known as the output gap. When the economy is experiencing a boom, i.e. actual GDP is above the trend line, there is said to be a positive output gap. Conversely, during a recession, when actual GDP is below the trend line, there is said to be a negative output gap. (Anderton 2008 p. 186.)

3.1.2 Unemployment

Unemployment measures the number of people out of work at a point in time.

Unemployment in an economy with a given labor force will rise if the number of workers gaining jobs is less than the number of people losing jobs. If there is an increase in the number of people seeking jobs, and the amount of jobs in an economy remains the same, unemployment will also rise. (Anderton 2008 p. 209.)

Unemployment is a countercyclical variable. This means it has a negative correlation to GDP; when GDP rises, unemployment falls and vice versa. (Knoop 2010 p. 14).

Unemployment is also a lagging indicator of GDP, meaning it peaks or troughs after GDP. Total unemployment lags peaks in output because when the economy first slows down, some workers are still finding jobs (even as new layoffs may be increasing) so that unemployment lags peaks. When the economy begins to improve, i.e. GDP has passed its trough, it takes a while for unemployment to fall because firms are wary of adding workers too quickly. Thus unemployment lags troughs. (Knoop 2010 p. 19.)

Types of unemployment

Unemployment can be distinguished into categories based on the reasons for its occurrence or type of unemployment.

Frictional unemployment is short-term unemployment that occurs when workers who have lost their jobs are moving into new ones. Frictional unemployment exists constantly and is not regarded as a serious problem.

Seasonal unemployment occurs when some workers, e.g. construction workers or workers in the tourist industry, tend to work on a seasonal basis. Seasonal unemployment tends to rise in the winter, when some of these workers are laid off, and fall in the summer when workers are once again hired.

Structural unemployment occurs when the demand for labor is less than its supply in a certain labor market. Structural unemployment might occur when there is a decline in a

certain trade sector, leaving many unemployed and holding skills not required at the moment. This is also called sectoral unemployment. Another example of structural unemployment is what is referred to as technological unemployment. This can occur when new technology puts workers out of work, leaving people unemployed until retraining. (Anderton 2008 p. 210.)

Cyclical unemployment, also called demand-deficient unemployment, is caused by a lack of demand in the economy. It follows business cycles. Cyclical unemployment occurs when the economy is not in boom, that is, when there is a negative output gap; aggregate demand is simply too low for the economy to provide every worker with a job. (Anderton 2008 p. 210.)

The costs of unemployment

Unemployment has costs of different sizes and to different parties.

The first and most obvious party to lose is the unemployed themselves, who lose the income they could have earned. This cost can, in part, be made up for by any benefits and additional leisure time received. However, the income lost is only part of the cost. Unemployment, especially long-term, is often something people are ashamed of. The unemployed suffer from several different social problems including stress, mental instability and suicide. Long-term unemployment comes with an additional problem, and easily starts a vicious cycle. If a person has been unemployed for a long time, they lose work skills and are not being trained in the latest developments in their line of work. Employers might recognize this long-term unemployment as a disadvantage and thus hire someone else. The long-term unemployed cannot find a job due to lack of recent experience, and is unable to gain recent experience because they cannot find a job. (Anderton 2008 p. 211-212.)

The cost of unemployment to the taxpayer is twofold, and significant. An unemployed person receives benefits and does not pay taxes on any income. Additionally an employed person is able to spend more which results in more taxes for the government. (Anderton 2008 p. 212.)

Unemployment is also a cost to the economy as a whole. The cost to taxpayers is a so called transfer payment, that is, resources are redistributed within the economy. However, the output lost (less produced) due to unemployment is a cost to the economy. In addition to this there are social costs such as increased violence and depression. (Anderton 2008 p. 212.)

3.1.3 Inflation

Inflation is the rate of change of average prices in an economy. Low inflation is generally considered to be better than high inflation. Today, inflation of a few percent is considered to be acceptable. When inflation reaches 5 percent it can be considered worrisome. (Anderton 2008 p. 130.)

Inflation is measured by calculating the change in a weighted price index over time. This is called a consumer price index (CPI), which combines prices of a range of goods and services (a basket of goods). Prices are recorded in different areas of a country and in different kinds of stores, such as corner shops and supermarkets. Different goods and services are given different weights because, for example, a larger proportion of household income is spent on food than on tobacco. Food is thus given more weight than tobacco. (Anderton 2008 p. 217.)

The result of the price index is an average price of goods converted into index number form. This number is then compared to a chosen base value, which is usually 100. If the price index was 110 today and 100 a year ago, the rate of inflation would be 10 percent over this period. (Anderton 2008 p. 217.)

Inflation is generally a mildly procyclical variable. This means it has a slight positive correlation to GDP; when GDP rises, inflation rises slightly. Consumer price indices are roughly coincidental with business cycle turning points because consumer prices are quite sensitive to changes in current market conditions. However, this is not always the case, the reasons for which are not fully understood. (Knoop 2010 p. 19-20.)

Causes of inflation

Inflation can happen for two reasons: too much demand in the economy or rising costs. These are known as demand-pull inflation and cost-push inflation, respectively.

Demand-pull inflation occurs when total demand in an economy rises and total supply remains the same, leading to a rise in prices. This is similar to what is observed in microeconomics, studying the market of one good: if the demand for oil increases while supply remains unchanged, the price of oil will rise. Increases in total demand can be the result of many things, such as increased consumer spending, companies increasing spending in response to increased demand or a rise in world demand for a domestic export product due to a global boom. (Anderton 2008 p. 218-219.)

Cost-push inflation can occur for several reasons. The most significant cause is an increase in wages, which is part of production costs, leading to higher production costs. Another cause is a rise in prices of imported products, which leads to an increase in the overall price level. A company might also simply raise prices to improve profit margins. The government might raise indirect taxes or reduce subsidies, both of which would lead to an increase in the price level. (Anderton 2008 p. 219.)

Costs of inflation

If prices are stable, consumer and firms have a general idea of what is a fair price for a certain product. If prices are rising, consumers and firms are unclear on what the reasonable price of a product is. This leads to buyers spending more time and effort on searching for the best price. Such costs are known as shoe-leather costs because you would have to walk around in search of the best price, thus wearing out your shoes. (Anderton 2008 p. 219.)

Menu costs are costs incurred by sellers when they have to calculate and issue new price lists as a result of inflation, an example of this being menus in restaurants. Price increases also have psychological and political costs; people feel like they are worse off,

even if their incomes rise by more than the rate of inflation, and, on a larger scale, such feelings can cause social disorder. (Anderton 2008 p. 219.)

Inflation can redistribute income and wealth between households, firms and the state in a variety of ways. For example, a pensioner on a fixed pension from a private company will see their real income halve over a five period if prices double over the same period. Similarly, if real interest rates fall as a result of inflation, there will be a transfer of resources from borrowers to lenders. If interest rates are at 10 percent and inflation is at 20 percent, a saver will lose 10 percent of the real value of saving each year whilst a borrower will see a 10 percent real reduction in the value of debt annually. (Anderton 2008 p. 220.)

3.1.4 Current account balance

The current account balance is the difference between total exports and total imports. All financial dealings between one country and the rest of the world are recorded on the balance of payments account (BOP). The balance of payments account is divided into the current account and the capital and financial accounts. Flows of money into the country are given a positive sign on the accounts and flows of money out of the country are given a negative sign. (Anderton 2008 p. 224.)

The current account is split into several components. Trade in goods is often called the trade in visibles. This is trade in raw materials, semi-manufactured goods and finished manufactured goods. Visible exports are goods sold to foreigners, resulting in an inward flow of money (positive sign on the BOP). Conversely, visible imports are goods which are bought by domestic residents from foreigners, resulting in an outward flow of money (negative sign on the BOP). The difference between visible exports and imports is known as the balance of trade. (Anderton 2008 p. 224.)

Trade in services consists of intangible services, including financial services such as banking and insurance, transport services such as shipping and air travel, and tourism. Trade in services is an example of trade in invisibles. Exports of invisibles are bought by foreigners. An example of an invisible export is a tourist paying for a stay in a

foreign hotel, resulting in an outward flow of money. A foreign company buying insurance from a domestic company is an invisible import, resulting in an inward flow of money. (Anderton 2008 p. 224.)

Other invisibles, besides trade in services, are income and current transfers. Income results from the loan of factors of production abroad. This income can be generated by interest, profits and dividends on assets owned abroad, resulting in an inflow of money. Conversely, these factors can result in an outward flow of money when payments are made on assets owned by foreigners. Current transfers are a range of government transfers to and from overseas organizations. (Anderton 2008 p. 224-225.)

The capital and financial account record flows of money associated with saving, investment, speculation and currency stabilization. (Anderton 2008 p. 224.)

Current account deficits and surpluses

When a country spends more on goods and services than it earns on them, i.e. imports are larger than exports, there is said to be a current account deficit. This deficit is financed by money borrowed from abroad, resulting in a surplus on the capital account. Equally, if exports are larger than imports, the country has a current account surplus. In this case there is a deficit on its capital account. Thus the balance of payments account balances (equal to zero), even though separate components of it are not balanced. (Anderton 2008 p. 225.)

The current account balance changes over time between surplus and deficit. This can be caused by a change in the exchange rate, which affects the balance of trade. Domestic inflation will increase costs to firms, e.g. workers demanding higher wages to offset the effects of inflation, which is likely to cause prices to rise. A change in the current account balance may also be caused by a change in aggregate demand of a country's economy, or the world economy. A global recession reduces global demand and thus leads to a reduction in countries' exports. (Anderton 2008 p. 225.)

3.2 The recession that followed the financial crisis

The financial crisis of 2007 was the demand-side shock that sent the world into a recession. This was exacerbated by a supply-side shock, namely a global rise in commodity prices. According to the International Monetary Fund's (IMF) index on primary commodity prices, average prices of commodities had been rising since a low in 2002 (58.3). From 2007 to late 2008 prices rose significantly, after which they dropped abruptly. (See Figure 2 below). The index on primary commodity prices combines both non-fuel and fuel commodities. This includes food, vegetable oils, meat, agricultural raw materials, metals, petroleum and natural gas. (IMF 2011a).

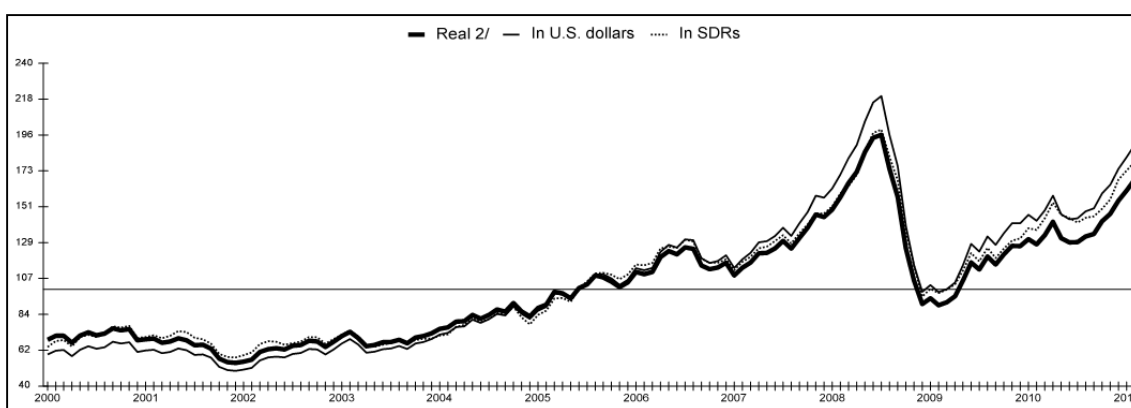


Figure 3. Indices of primary commodity prices, 2000-2011, base 2005=100. (IMF 2011b.)

In addition to the financial crisis and rising commodity prices, inflation had been rising worldwide. The development of both global aggregate headline and core inflation indicate that consumer prices had been rising. In early 2007 global aggregate headline inflation was below 3 percent, and reached a peak of about 6 percent in mid-2008. (See Figure 4 below). Headline inflation is determined by the consumer price index (the price of a basket of goods), while core inflation excludes items that are subject to sudden changes, such as energy prices and some food items. (Investopedia).

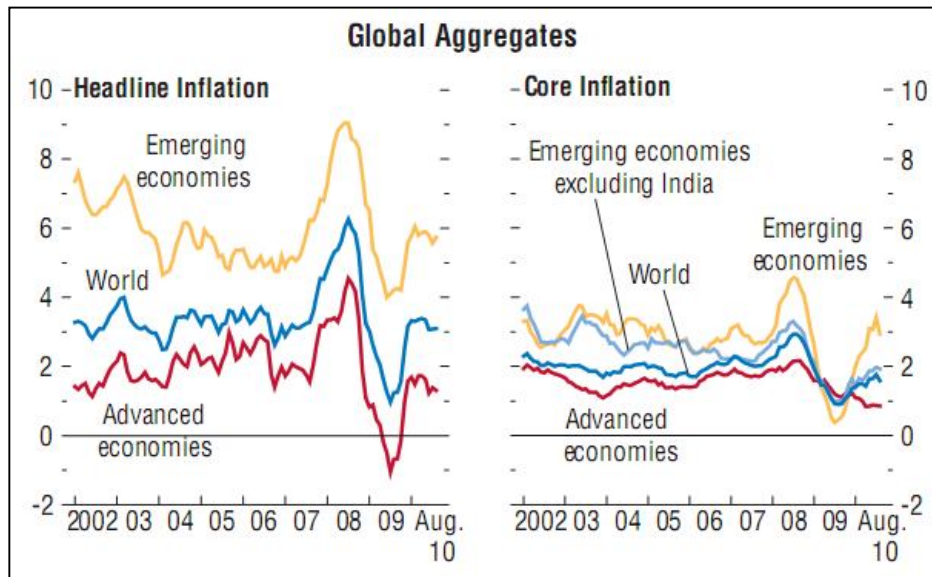


Figure 4. Headline and core inflation, global aggregates, 2002 – 2010. (World Economic Outlook 2010 p. 25.)

Global output growth declined during the recession, i.e. production of goods and services diminished. Aggregate real GDP growth for advanced economies was negative from mid-2008 to the end of 2009, reaching a trough of -5 percent in early 2009. Global real GDP growth reached a trough of -3 percent, but was offset by the continued positive growth of emerging economies. Emerging economies saw growth decline to less than one percent simultaneously with global negative growth. (See Figure 5.)

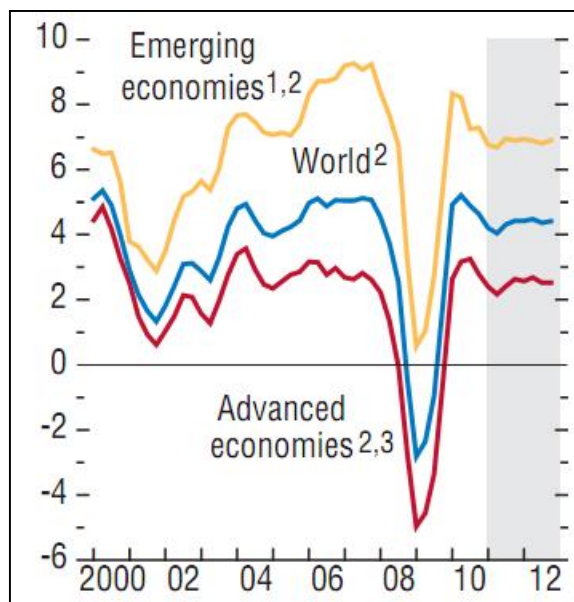


Figure 5. Global quarterly year-on-year change in real GDP 2000-2012. (IMF 2011c.)

3.3 Recession defined

A recession is a period when growth in output falls or becomes negative. The technical definition now used by governments is that a recession occurs when growth in output is negative for two successive quarters (two periods of three months). (Anderton 2008 p. 132). Thus, a recession occurs when real GDP growth is negative for two successive quarters. This is the most commonly accepted definition for a recession and method of determining its length.

There are, however, other definitions. Hubbard (2009) defines a recession as a period during which total production and total employment are decreasing. (Hubbard 2009 p. 348). In the United States, recessions are determined by the National Bureau of Economic Research (NBER). They define a recession as “a period of falling economic activity spread across the economy, lasting more than a few months, normally visible in real GDP, real income, employment, industrial production, and wholesale-retail sales.” (NBER 2010). Factors of the NBER definition are often visible during a recession defined by the common definition, but not necessarily all of them.

3.3.1 Changes in key macroeconomic variables during a recession

A recession is reflected in several macroeconomic variables. Effects on key variables are:

- The rate of growth of real GDP drops below the long term trend (see Figure 2)
- There exists a negative output gap, i.e. production capacity is not fully utilized due to lack of aggregate demand
- Cyclical unemployment occurs, i.e. aggregate demand is so low that unemployment increases
- More costs for the taxpayer; benefits to the unemployed and lost income taxes
- Less goods are produced due to less demand (cost to the economy)
- Exports decline disproportionately to imports, i.e. the balance of trade suffers
- Growth in the inflation rate is curbed

3.4 The 2008 – 2009 recession in Finland

The global recession was visible, to varying degrees, in the key macroeconomic variables of Finland. In this chapter we will examine the performance of Finland's economy during the global downturn.

3.4.1 Economic growth

The gross domestic product of Finland in the last quarter of 2008 dropped by 1.4 percent from the corresponding quarter of the previous year, from €17.9 billion to €17.3 billion. In the first quarter of 2009, GDP declined by 7.3 percent over the corresponding quarter of the previous year. At that point Finland had entered recession according to the common definition of two successive quarters of negative growth. (See Figure 6).

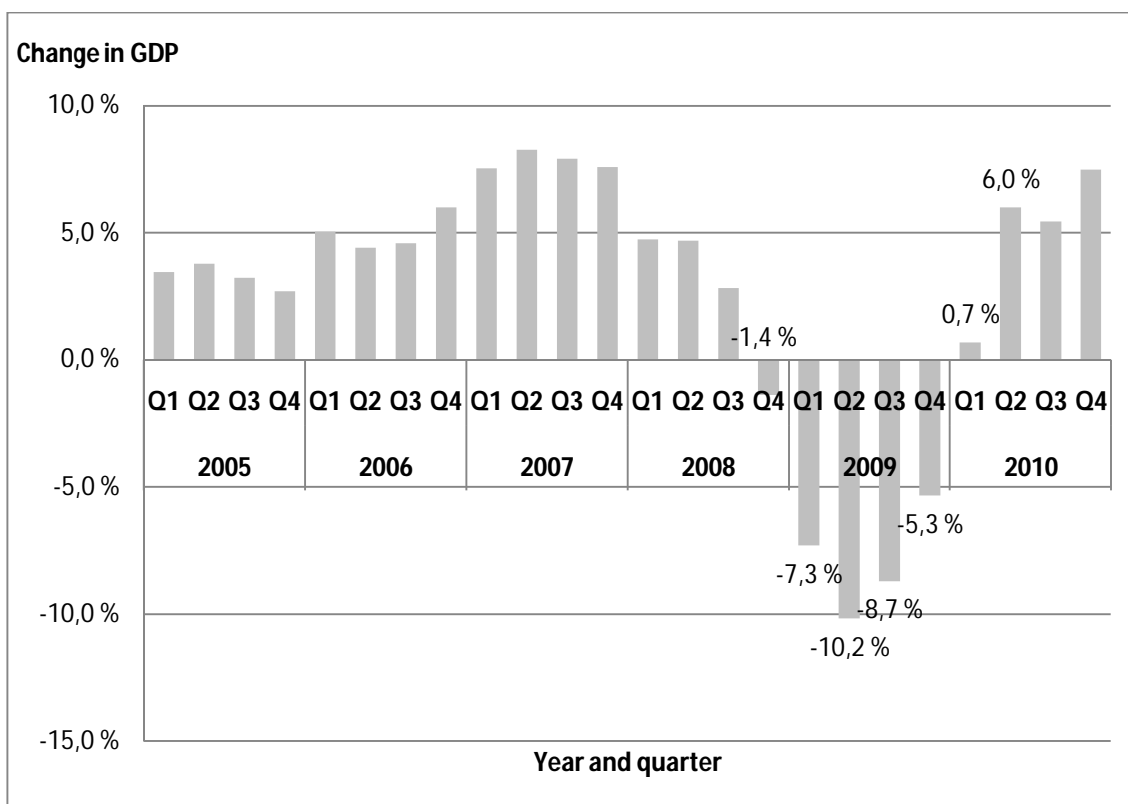


Figure 6. Percentage change in GDP in Finland 2005-2010, quarter to corresponding quarter of the previous year. (Figure by author, data from StatFin 2011a.)

The recession reached its trough in the second quarter of 2009, during which GDP decreased by 10.2 percent. This was followed by an 8.7 percent decrease in GDP in the third quarter and a 5.3 percent decrease in the last quarter of 2009. The first quarter of 2010 saw GDP increase by 0.7 percent. The recession thus ended in the last quarter of 2009. (See Appendix 4 for quarterly figures on GDP and annual changes.)

3.4.2 Unemployment

In Finland, a person is defined as being unemployed if he/she is without work during the survey week (when data is gathered), has actively sought employment in the past four weeks as an employee or self-employed person and would be available for work within two weeks. A person who is without work and waiting for an agreed job to start within three months is also classified as unemployed, if he/she could start work within two weeks. (Labour force survey 2011 p. 17.)

The unemployment rate is the percentage of unemployed people of the active population. The active population comprises both employed and unemployed people ages 15 to 74. (Labour force survey 2011 p. 7.)

Figure 7 illustrates the monthly unemployment rate in Finland from 2005 to early 2011. In the end of 2008 (December), the unemployment rate in Finland was 6.1 percent. At this point GDP growth had already turned negative. In January 2009, the unemployment rate rose to 7.0 percent. During the next four months, the unemployment rate gradually climbed, reaching a peak of 10.9 percent in May 2009. (See Appendix 6 for monthly data from 2004 to 2010.)

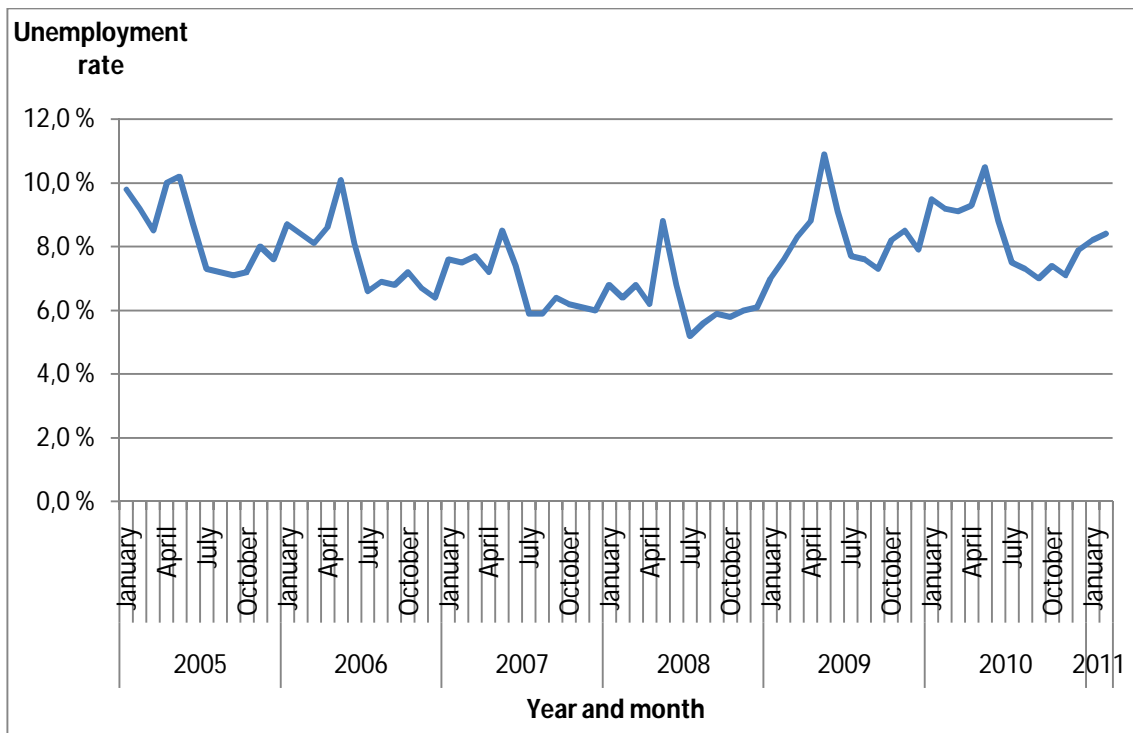


Figure 7. Unemployment rate in Finland 2005 – 2010. (Figure by author, data from StatFin 2011b.)

It is important to note that unemployment usually is high in May. This spike is caused by students entering the labor market (students looking for summer jobs). (Labour force survey 2010 p. 2). Similar sharp increases have occurred in years before the recession as well as in 2010, although the increase in 2009 was sharper than in other years. (See Figure 7.)

3.4.3 Inflation

In Finland, inflation is determined based on the consumer price index (CPI) which is established and updated monthly by Statistics Finland. Each mid-month, Statistics Finland interviewers collect around 50 000 prices on 483 commodities from approximately 2 700 outlets and, additionally, some 1 000 items of price data are gathered by centralized collection. (Statistics Finland 2011.)

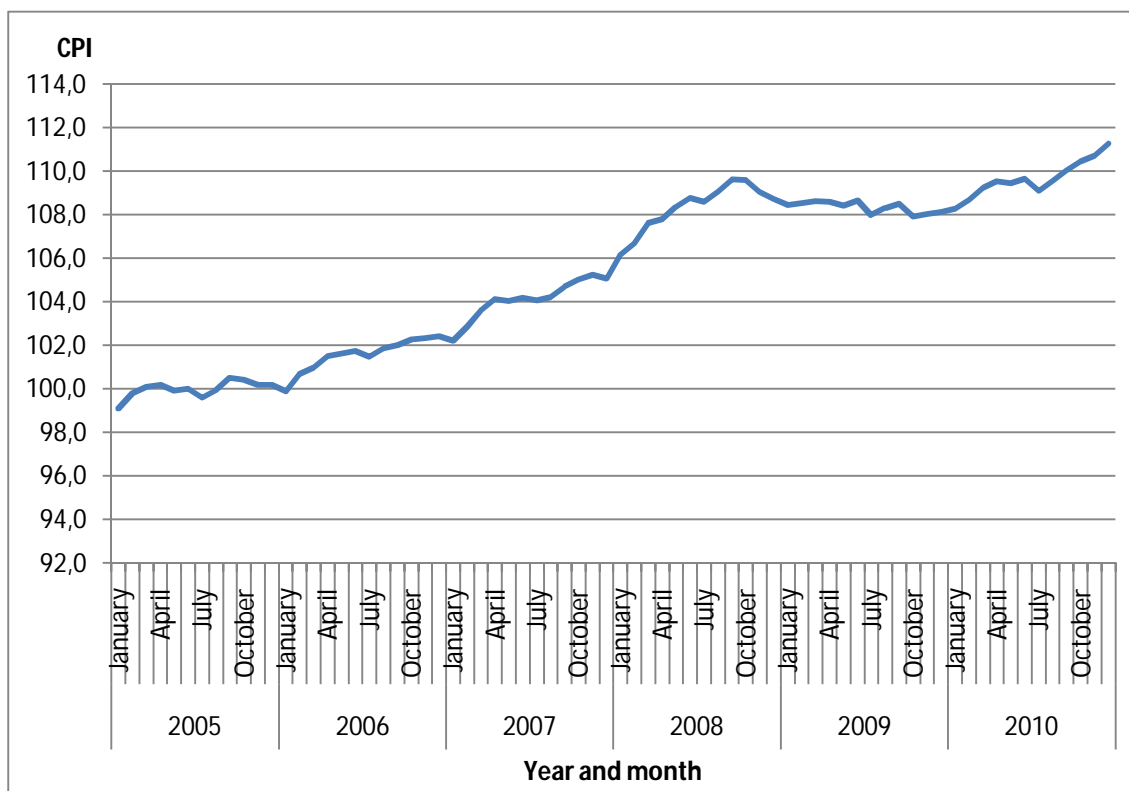


Figure 8. Consumer price index (CPI) 2005 – 2010 in Finland, base 2005=100 (Figure by author, data from StatFin 2011c.)

Figure 8 illustrates the development of the consumer price index from 2005 to 2010 in Finland, with 2005 as the base value (100). Inflation was positive during almost the whole period of expansion; increased total demand increased average prices. The CPI reached a peak of 109.62 in September 2008 when the rate of inflation was 4.7 percent. The peak was followed by a negative rate of inflation for eight months, exhibiting the roughly coincidental nature of the CPI to GDP. In early 2010, the rate of inflation turned positive as consumer prices once again started to rise. (See Appendix 1 for monthly figures.)

3.4.4 Current account balance

In 2008 Finland had a current account surplus of €5.4 billion. Exports totaled €55.6 billion and imports totaled €58.7 billion, resulting in a balance of trade surplus of €6.9 billion. (Bank of Finland 2010 p. 5.)

In 2009 both exports and imports of goods dropped by about a third from 2008. Exports in 2009 totaled €45.1 billion and imports totaled €41.7 billion, resulting in a balance of trade surplus of €3.4 billion. The current account surplus in 2009 amounted to €4.7 billion, equal to about 2.7 percent of GDP. The decline in the trade balance from 2008 was offset by an increase in net investment income in 2009. (Bank of Finland 2010 p. 5.)

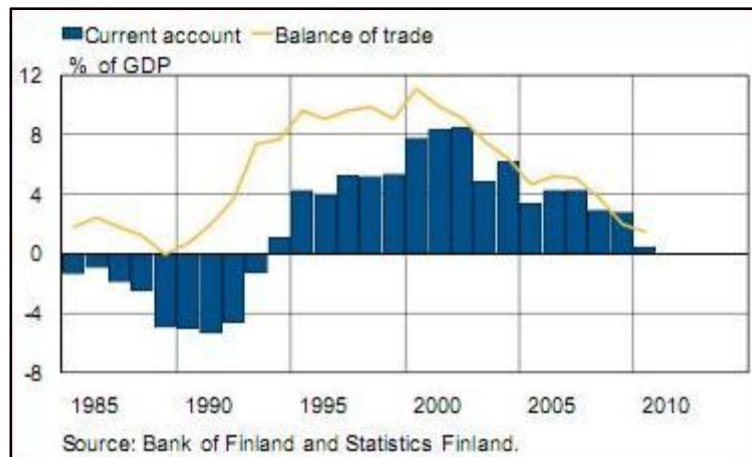


Figure 9. Current account and trade balances of Finland, 1985 – 2010/I-II. (Bank of Finland 2010 p. 5.)

4 THE FINNISH GROCERY MARKET

The Finnish grocery trade is characterized by the formation of retailer groups, as well as by the centralization of procurement and logistics. The three largest groups account for almost 90 percent of the retail grocery market. (Nielsen 2011). For a sparsely populated country like Finland, centralization is essential; without large volumes it is impossible to attain the efficiency needed. Without sufficient cost-efficiency, prices would escalate, selections would shrink, and customers would have poorer service and reduced accessibility. (Finnish Grocery Trade 2010-2011 p 17.)

A persisting trend in the Finnish grocery market is a gradual shift from many smaller stores to stores larger than 1000 square meters. In 2009, 10 percent of all the stores accounted for 50 percent of the value of grocery trade. In the beginning of the 1990s there were over 6000 grocery stores in Finland. By 2009 this number had dropped by a third to below 4000. Simultaneously the total value of sales has constantly increased; from about €1.5 billion in 2005 to €4.3 billion in 2009, an average annual increase of 5.5 percent. (Finnish Grocery Trade 2010-2011 p. 29.) (See Appendix 3 for more figures on store types for the period 2000 – 2009.)

Another characteristic of the Finnish grocery market is the use of bonus point –cards for regular customers. The S-Group has the S-Etukortti, the K-Group has the Plussakortti and Suomen lähikauppa has the YkkösBonus –card. In effect, each group gives its customers a plastic card, much like a credit card. This card records points on purchases, which results in advantages, often in the form of coupons equivalent to cash. In addition to this, stores offer discounts on some products to regular customers who own the bonus card.

Grocery trade has always been a significant employer. In 2009, the trade sector in Finland employed over 200 000 people. (Finnish Grocery Trade 2010-2011 p. 6.)

4.1 Definition of groceries

The term grocery has traditionally referred to food. Nowadays groceries are also other daily consumer goods purchased frequently alongside food items. Thus groceries include food, beverages, techno-chemical products, household paper and tissue products, tobacco products, newspapers and magazines, and daily cosmetics. The term ‘grocery store’ usually refers to a self-service market that offers the complete selection of goods listed above. In Finland, food accounts for about 80 percent of all grocery store sales. (Finnish Grocery Trade 2010-2011 p. 5.)

4.2 Store types

Grocery stores are primarily categorized according to their sales area. This area is defined as the premises in which sales operations are conducted. Additionally, stores differ in how customers are served, how much of the total sales area consists of food as well as the store’s location relative to the customer. Table 1 lists the store types and their characteristics.

Table 1. Grocery store types and characteristics. (Finnish Grocery Trade 2010-2011 p. 31-32.)

Store type	Sales area	Service	Selection	Other
Department store	2500 m ² +	Self-service or over the counter	Each department acts as a specialty store, no category of items accounts for over 50 percent of total sales area	Often located in city centers, outlying business centers or shopping centers
Hypermarket	2500 m ² +	Self-service	Food accounts for less than half of the total sales area but the focus is on groceries	Located near city centers, in shopping centers or other easily accessible places
Supermarket - Large - Small	1000 m ² + 400 – 1000 m ²	Self-service	Food accounts for more than half of the total sales area	
Corner shop - Large - Small	200 – 399 m ² 100 – 199 m ²	Self-service	Focus on groceries	Located close to the consumer, easily accessible on foot
Small stores and kiosks	- 100 m ²	Through a window or self-service	Limited selection of groceries	

In addition to the store types listed in Table 1, there are also stores categorized as discounters, convenience stores and service stations, as well as product-specific specialty stores. Discounters carry a limited selection and are often located in industrial and business areas along good traffic connections. Convenience stores can often be found on the premises of service stations, creating a combination of petrol sales, restaurant services, grocery sales and other services. Product-specific specialty stores include indoor markets, direct sales as well as shops on wheels or in boats. (Finnish Grocery Trade 2010-2011 p. 32.)

4.3 Groups in the Finnish grocery market

The Finnish grocery market is dominated by two groups: the S-Group and the K-Group. Together they stand for more than three quarters of total grocery sales in Finland. Suomen lähikauppa controls a little more than 10 percent of the market, followed by Lidl with 5 percent. Other groups, including Stockmann, Tokmanni Group, M-Chain and Minimani constitute and aggregate 4 percent of the market. Private stores account

for a combined 3,3 percent of all grocery sales. (See Appendix 2 for market shares 2005 – 2009.)

4.3.1 S-Group

In 2005 the S-Group passed the K-Group in market share (35.9 percent and 33.9 percent respectively) and claimed the position as market leader in the Finnish grocery market. (SOK 2006 p. 19). Since then, the S-Group has been the largest group in the grocery market. In 2009 its market share was 43.2 percent with sales

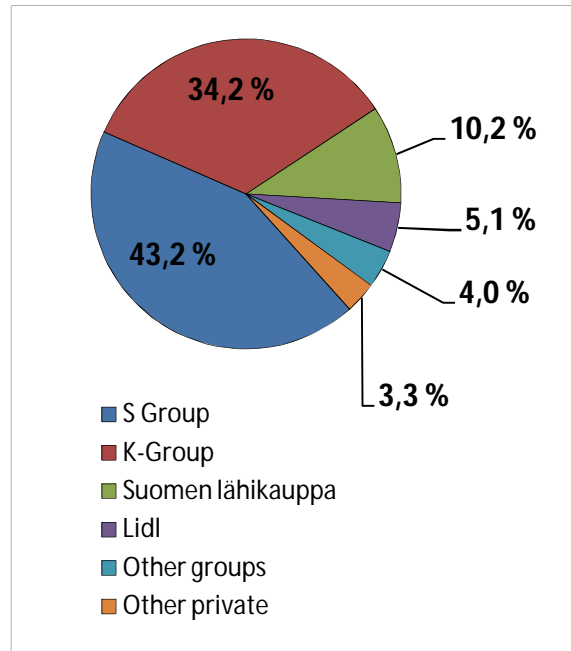


Figure 10. Market shares of Finnish grocery groups 2009. (Finnish Grocery Trade 2010-2011 p. 16.)

totaling €6,283 million. (Finnish Grocery Trade 2010-2011 p. 16). The S-Group increased its market share to 44.1 percent in 2010. (Nielsen 2011). The S-Group consists of the SOK Corporation and its subsidiaries in addition to 22 regional cooperatives and 10 local cooperatives. (SOK 2010 p. 30). The S-Group sells staple

products under its private label Rainbow and acts as the Finnish retailer of X-tra, which is an inter-Nordic brand of Coop Trading A/S. (SOK 2010 p. 5).

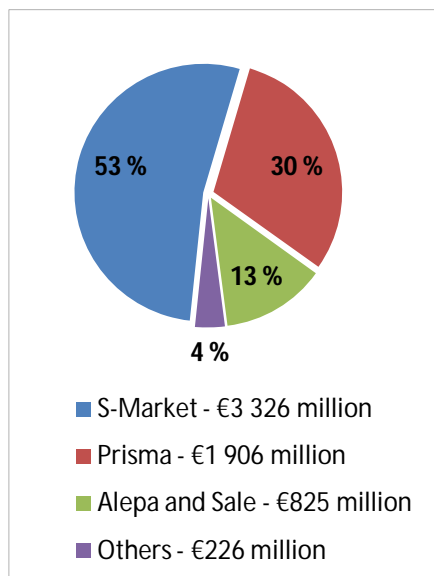


Figure 11. The S-Group's grocery sales by chain in 2009. (Finnish Grocery Trade 2010-2011 p.18.)

In 2009, 52.9 percent of the S-Group's sales came from its S-Market supermarkets. The Prisma hypermarkets accounted for 30.3 percent of sales while the Alepa and Sale (corner shop and small supermarket) stores accounted for 13.1 percent of sales. The remaining 3.7 percent of sales came from other points of sale, such as the convenience stores found at ABC service stations. (Finnish Grocery Trade 2010-2011 p 18.)

By May 2006, SOK had acquired complete ownership of Spar Finland. The S-Group ended up with 80 former Spar stores, all of which continued operations under the S-Group's brand (Sale or Alepa).

4.3.2 K-Group

The K-Group, or Kesko, is the second largest retailer of groceries, having lost its position as market leader in 2005 to the S-Group. In 2009 the K-Group controlled 34.2 percent of the market with sales of €4,973 million. (Finnish Grocery Trade 2010-2011 p. 16). The market share grew to 35 percent in 2010. (Nielsen 2011). The K-Group's grocery trade is controlled by the Kesko Food division. The K-Group sells staple products under its private label Pirkka.

(Finnish Grocery Trade 2010-2011 p. 25). Additionally, the K-Group acts as the retailer of Euroshopper discount products in Finland. (AMS 2008).

In 2009 K-Market supermarkets accounted for 33.1 percent of the K-Group's sales. The K-Citymarket hypermarkets accounted for 31.9 percent of sales, the K-Supermarket stores accounted for 28.7 percent of sales and the remaining part of total sales comes from other sources. (Finnish Grocery Trade 2010-2011 p 19.)

Following the dissolution of the Spar Group, 24 of its stores were attained by the K-Group. (Hohti 2007.)

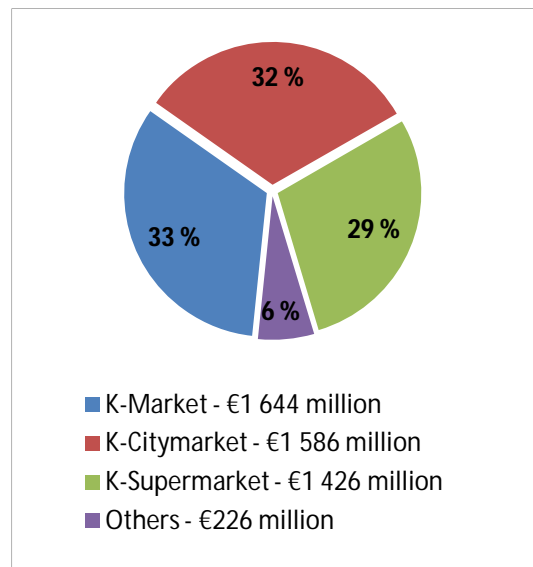
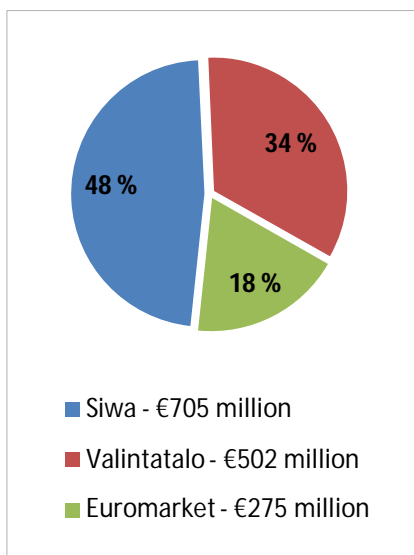


Figure 12. The K-Group's grocery sales by chain in 2009. (Finnish Grocery Trade 2010-2011 p. 19.)

4.3.3 Suomen lähikauppa

Suomen lähikauppa is the third largest seller of groceries in Finland. Since 1992 it has operated three chains of stores: Siwa, Valintatalo and Euromarket. (Suomen lähikauppa webpage.)



The Siwa corner shops formed the majority of the grocery sales of Suomen lähikauppa in 2009; 48 percent (€705 million) of total sales. The Valintatalo stores range from corner shops to supermarkets and stood for 34 percent (€502 million) of total sales. The Euromarket hypermarkets, of which there are only six in Finland, made up 18 percent of total sales. In 2009, Suomen lähikauppa had a 10.2 percent share of the market with total sales of €1,482 million. (Finnish Grocery Trade 2010-2011 p. 16.)

Figure 13. Suomen lähikauppa, grocery sales by chain in 2009. (Finnish Grocery Trade 2010-2011 p. 19.)

In the wake of the breakup of the Spar Group, Suomen lähikauppa secured 38 of Spar's former points of sale. (Hohti 2007). During the year 2010, 13 Euromarkets and 30 Siwa stores were closed. These were significant reasons for the recent decline in the market share of Suomen lähikauppa, which decreased to 9 percent in 2010. (Nielsen 2011).

4.3.4 Lidl

Lidl is a discount grocery chain. In 2009 Lidl had 133 stores in Finland. Its sales totaled €741 million, resulting in a 5.1 percent market share. (Finnish Grocery Trade 2010-2011 p. 30). In 2010, Lidl's market share saw a slight decline, ending up at an estimated 4.8 percent. (Nielsen 2011).

Lidl Suomi, which is an independent subsidiary of its German parent company, operates Lidl in Finland. Lidl does not release sales figures like other, Finnish-based groups do. For this reason figures are estimates, in some cases based on dubious data. (HS.fi 2007.)

4.3.5 Other groups

Other groups with a noteworthy market share are Stockmann, Tokmanni group, M-Chain and Minimani. In 2009 these four groups made up 4.0 percent of the grocery market in Finland, with combined sales of €88 million.

Stockmann sells groceries in its department stores, but grocery sales only accounted for 24.2 percent (€92 million) of its total sales of €793 million in 2009. The majority of its revenue is generated by other sales, which in 2009 constituted 75.8 percent (€601 million) of total sales. (Finnish Grocery Trade 2010-2011 p. 20.)

The Tokmanni Group is Finland's largest discount store chain. At the end of 2009, it consisted of 139 stores under seven different brands, spread throughout Finland: Tokmanni, Tarjoustalo, Robinhood, Vapaa Valinta, Maxi-Makasiini, Maxi-Kodintukku, and Säästöporssi. In 2009, the chain's sales were €601 million. (Finnish Grocery Trade 2010-2011 p. 21.)

M Itsenäiset Kauppiat Oy, or the M-Chain, started operating in 2006. It is a nationwide chain, consisting of 55 stores (in May 2010), owned by independent grocers. (Finnish Grocery Trade 2010-2011 p. 21). The M-Chain was created by independent sellers of the Spar Group as a response to the S-Group's acquisition of Spar. (Rantanen 2005). Altogether 47 former Spar stores were transferred to the M-Chain. (Hohti 2007). In 2009 the M-Chain's sales totaled €108 million, resulting in a 0.7 percent share of the grocery market. (Finnish Grocery Trade 2010-2011 p. 16).

Minimani operates six hypermarkets in Finland and it is focused on offering a comprehensive assortment of inexpensive groceries. (Minimani webpage). It had a market share of 0.7 percent in 2009, with total sales of €101 million. (Finnish Grocery Trade 2010-2011 p. 21).

In addition to the other groups, there are private stores that are not part of any group. These stores together account for 3.3 percent of the market with sales totaling €462 million. (Finnish Grocery Trade 2010-2011 p. 16.)

4.3.6 The now defunct Spar Group

In 2005 the Spar Group had a noteworthy 6.2 percent share of the Finnish grocery market. Its total sales were divided between its two nationwide chains, the Spar markets (85.5 percent of sales) and Eurospar (14.5 percent of sales). However, in early 2006 the SOK Corporation acquired complete ownership of Spar Finland, the Finnish operations of the Spar Group, making it a subsidiary of SOK. (Finnish Grocery Trade 2006-2007 p. 14).

The acquisition was subject to constraints set by the Finnish Competition Authority (FCA), the main concern being the amount of Spar stores to be attached to the S-Group. The S-Group had expressed interest in attaching less than 100 stores to its network. A condition set by the FCA was that part of the Spar stores would be offered to the S-Group's competitors, the reason for which was to limit the strengthening of the S-Group's market position in some Finnish localities. (FCA 2006.)

By the end of 2007, Spar stores were gone from Finland. The S-Group converted 80 former Spar stores to function under the S-Group's retail concept. 47 Spar stores were transferred to the M-Chain, 38 stores to Tradeka (now Suomen lähikauppa) and 24 to the K-Group. Operations in 85 Spar stores were ended. (Hohti 2007.)

5 GROCERY SALES IN FINLAND DURING THE RECESSION

This chapter examines how Finnish grocery groups fared during the recession 2008 – 2009. We will take a look at factors affecting the sales of groceries and compare this to other trade sectors. Additionally consumer expectations are discussed and their effect on consumer choices.

5.1 Recent regulatory changes affecting the grocery market

5.1.1 Extended liberalization of store opening hours

In late 2009 a new law concerning grocery store opening hours was passed and came into effect in December 2009. There were two major changes to the old law. First, the new law allowed any grocery store to be open on Sundays from 12 to 18, whereas the old law only allowed stores with a sales area of 400 square meters or less to stay open on Sundays. Second, stores with a sales area of 400 square meters or less are now allowed to stay open around the clock, every day of the week. Opening hours of stores of any size are still subject to limitations on some public holidays, such as Mother's day and Christmas Eve. It is also worth pointing out that the law specifies grocery stores as stores where the majority of sales consists of foodstuff. (Finlex 2000 & 2009.)

In the S-Group, the extended liberalization of store opening hours created hundreds of man-years of work. The increased wage costs from longer opening hours are compensated by savings from a steady logistics flow. (SOK 2010 p. 2). The new law on shop opening hours did not affect Lidl points of sale; every Lidl in Finland has a sales area of more than 400 square meters. (Parry 2009).

It is worth bearing in mind that the new opening hours came into effect at the end of 2009 and, as such, have only been in use at the end of the recession. However, it can be argued that the extended shop opening hours are of some importance in speeding up the recovery after the recession.

5.1.2 Price level and reduction in VAT

In October 2009, the value added tax (VAT) on foodstuffs was lowered to 12 percent (previously 17 percent). The VAT reduction did not affect other groceries such as washing liquids, toilet paper, alcoholic beverages or tobacco products. In effect the new VAT constitutes a 4.3 percent decrease in consumer prices, compared to the old VAT.

For example, if the price of a product was one euro, its price including VAT was €1,17. With the new VAT, the price would be €1,12. (PTY 2009.)

The reduction in VAT on foodstuffs was immediately visible in consumer prices. According to the National Consumer Research Centre, prices dropped by 5.7 percent as a result of the reduction in VAT. The decrease in prices was 5.2 percent if some seasonal changes in prices of vegetables are disregarded. (NCRC 2010.)

Figure 13 illustrates the development of the price indices for all commodities (CPI) and food and non-alcoholic beverages. The price index on food and non-alcoholic beverages had roughly followed the overall CPI up till the end of 2007. Over the two years starting from September 2007, prices of food and non-alcoholic beverages saw an increase of 11 percent. The index value was 114.52 in September 2009 and 108.10 in October, constituting a 5.6 percent drop. (See Appendix 5 for monthly index values.)

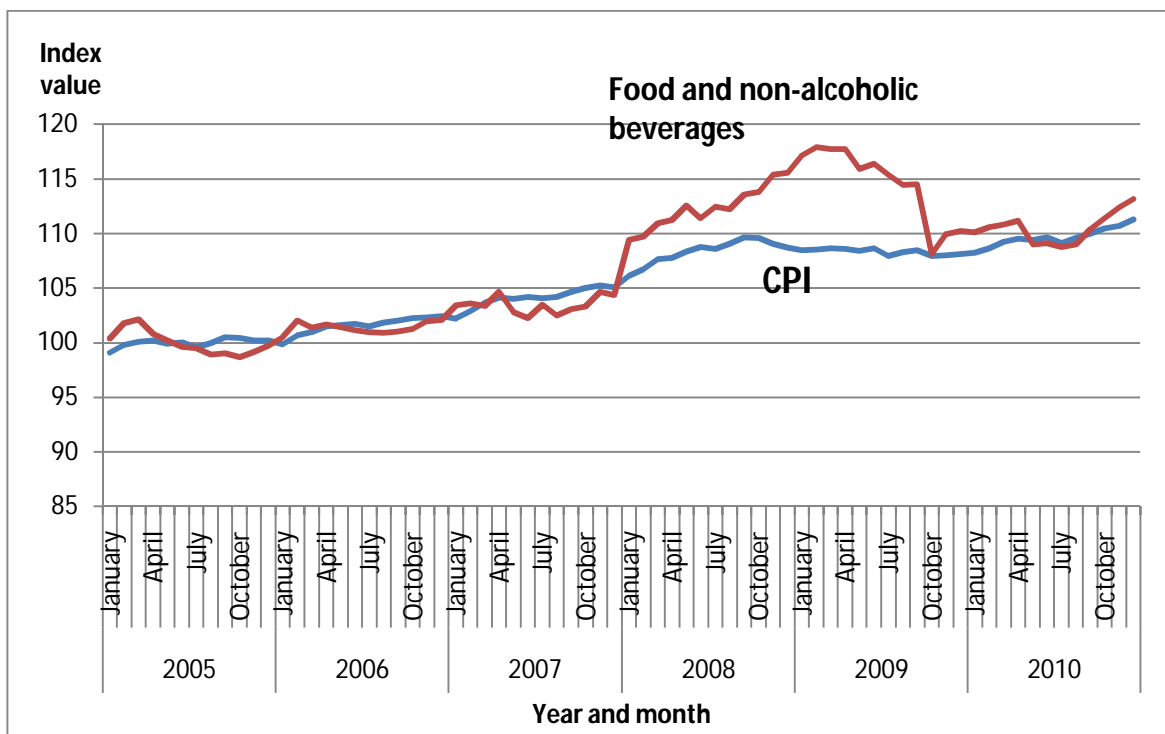


Figure 14. CPI for all commodities and Food and non-alcoholic beverages, 2005-2010, base value 2005=100. (StatFin 2011c.)

The reduction in VAT was a positive change from the consumer's point of view, but not so much for the companies in the grocery market. Because the reduction in VAT was

transferred directly to consumer prices, the change had a negative effect on sales values. Arguably a lower VAT, and the consequent lower consumer prices, could lead to an increase in sales volume, but that did not happen during the 2008 - 2009 recession (see chapter 5.4).

5.2 Volume, value and profit from grocery sales nationwide

Total revenue from Finnish grocery sales (including non-FGTA members) grew during the period 2006 – 2009. The number of people employed by the grocery trade steadily increased during the same period. Net profit dropped after 2007, when the net profit for the trade sector was almost €319 million in. In 2008, despite rising consumer prices and revenue, net profit dropped to €257 million. There was a further decrease in profit in 2009 to €229 million. (See table 2 for full figures.)

Table 2. Retail sales of groceries in Finland. Total employees, revenue and net profit 2006-2009. (Toimiala: 4711,472 Päivittäistavarakauppa (pl. 4725 ja 4726); Tiedot: Liikevaihto, Henkilöstön lkm yhteensä, Nettotulos; Tilastovuosi: 2006, 2007, 2008, 2009; Yrityksen suuruusluokka: Kaikki yritykset. StatFin 2011d.)

Year	Employees total	Revenue total, 1000€	Net profit, 1000 €	Net profit -%
2006	42 098	12 335 233	209 894	1,70 %
2007	43 592	13 258 420	318 611	2,40 %
2008	45 383	14 431 334	257 020	1,78 %
2009	46 766	14 958 893	229 433	1,53 %

The total sales value of groceries (FGTA members) had steadily been growing up till the end of 2008. From 2005 to 2006 the sales value grew by 4.2 percent, from 2006 to 2007 there was growth of 5.2 percent. The growth in 2008 over the previous year was 8.1 percent, in large part due to the rise in the price level of groceries. In 2009 sales value grew by only 3.1 percent over the previous year. The recession brought with it lower demand. Additionally, people increasingly switched to private label products (see chapter 5.5.2), lowering the value of sales. The reduction in VAT in October 2009 further helped lower the value of sales. There were some signs of lingering uncertainty

in 2010. Total sales in 2010 were €14.5 billion, which is the same as in 2009. (Nielsen 2011).

Table 3. Grocery sales value and volume of FGTA member groups 2005-2009. (Data for corresponding years from Finnish Grocery Trade: 2006-2007 p. 9, 2007-2008 p. 13, 2008-2009 p. 17, 2009-2010 p. 8, 2010-2011 p. 7.)

Year	Total retail sales, M€	Sales value growth	Sales volume growth
2005	11 908	2,30 %	2,40 %
2006	12 404	4,20 %	3,00 %
2007	13 046	5,20 %	3,50 %
2008	14 097	8,10 %	0,80 %
2009	14 529	3,10 %	-0,50 %

Total sales volume year-on-year growth was 2.4 percent in 2005, 3 percent in 2006 and 3.5 percent in 2007. However, in 2008 growth in sales volume dropped to only 0.8 percent, even though the total sales value saw significant growth. In 2009 the sales volume dropped (-0.5 percent) for the first time since 1993. (Nielsen 2011). This indicates that consumers bought fewer items than in the previous year. Still, sales value grew from 2008 to 2009 despite a drop in sales volume.

5.3 The oligopolistic nature of the grocery market

The structure of the Finnish grocery market is oligopolistic. The characteristics of an oligopoly are:

1. The market is dominated by a few large firms
2. Products are identical or differentiated
3. Significant barriers to entry

In Finland, almost 90 percent of the grocery market is controlled by three groups, satisfying the first requisite of an oligopoly. Every group in the market largely sells the same products, the only notable exception being private label products. (Pindyck 2001 p. 429.)

The size of the largest groups (S-, K- and Suomen Lähikauppa) satisfies the third requisite of an oligopoly: barriers to entry. Barriers to entry are factors that hinder new firms from entering the market. In the case of the Finnish grocery market, the largest groups have established their position and are large enough to exploit significant economies of scale, which means average cost of products drops when more is produced (and sold). A new firm would have to target a specific part of the market or differentiate itself to succeed, as it cannot match the low prices the dominating firms are able to offer due to economies of scale. (Pindyck 2001 p. 429.)

An example of the power of dominant groups in an oligopoly is Lidl's entrance into the Finnish grocery market in the early 2000s. Lidl differentiated itself from the existing groups through its hard discounter –concept, i.e. it had a narrow selection of goods and a focus on low costs and prices. (Kuusela 2010 p. 209). The Finnish groups responded by expanding their private label selections to correspond to that of Lidl. This move gave the existing groups a remarkable competitive advantage: their selections now roughly included the same kinds of products Lidl offers, in addition to brand goods. Consumers could thus buy both hard discounter –products as well as higher quality, brand goods in the same store, whereas only the former could be bought in Lidl. (Kuusela 2010 p. 150.)

The size of the largest groups constitutes other barriers to entry. The groups have an established network of stores and centralized procurement and distribution. These are elements that new entrants cannot easily match, or it would take a long time to do so. Additionally, customers are connected to the existing groups through the bonus point – systems.

The oligopolistic nature of the Finnish grocery market is an advantage to the groups already in it, especially those in dominant positions, and mitigates effects of a recession. The most significant factor is the size of the largest groups and the fact that most consumers are regular customers of these groups, either due to habit, the best selection, the lowest prices or out of necessity (no other stores in close proximity). This implies that groups retain their customers during downturns.

5.3.1 Pricing in an oligopoly

Low production prices can be achieved through economies of scale, as explained earlier. In an oligopolistic market, higher profits could be achieved if all the dominating firms were to raise their prices, because consumers would still buy from them due to a lack of options. This would imply collusion, i.e. an implicit understanding between firms to maintain a higher price level, which is illegal. However, the same result could be achieved if firms calculated the profit-maximizing price, and charged this price for products. (Pindyck 2001 p. 442-445).

The firms are part of what is referred to as a noncooperative game, where each firm independently does the best it can, taking its competitors into account. The pricing decisions and their respective profits for both firms are illustrated by the payoff matrix. (Figure 14). If, for example, Firm 1 charges 4€ for a product, it could earn a profit of 20€, granted Firm 2 charges 6€ for the same product. Likewise, Firm 2 could earn a profit of 20€ if it charged 4€ and its competitor charged 6€. This is because customers are expected to favor the firm that charges less, leaving the other firm with fewer customers. Both firms would be best off if they calculated and charged the profit-maximizing price (6€), resulting in 16€ profit for both. (Pindyck 2001 p. 443.)

		<u>Firm 2</u>	
		Charge 4€	Charge 6€
<u>Firm 1</u>	Charge 4€	12€, 12€	20€, 4€
	Charge 6€	4€, 20€	16€, 16€

Figure 15. Payoff matrix for pricing decisions. (Pindyck 2001 p. 443.)

However, if Firm 1 decides to charge 6€, there is no guarantee that Firm 2 will do so. If Firm 2 charges less, Firm 1 will lose customers and profit. What follows is a price war where both firms end up charging the lowest possible price, 4€. At this point the competitor's pricing decision does not matter, as it can only charge as little as 4€ also. (Pindyck 2001 p. 443.)

The simplified example of the noncooperative game above explains the thin profit margins of companies in an oligopolistic market and why the price for one product is practically the same in stores of different grocery groups. The thin profit margins are a characteristic of the grocery business. More profit is made the higher the sales volume.

The thin profit margins of the grocery business means it is volatile when it comes to changes in sales. For example, lowered consumer prices can lead to a significant reduction in profits.

5.4 Changes in consumer choices

5.4.1 Decline in consumer confidence

Expectations of increases in prices tend to make households bring forward their purchases and thus increase consumption. Expectations of large increases in real incomes will also tend to encourage households to increase spending now by borrowing more. So when the economy is booming, autonomous consumption tend to increase. On the other hand, if households expect economic conditions to become harsher, they will reduce their consumption now. For instance, they might expect an increase in unemployment rates, a rise in taxes or a fall in real wages. (Anderton 2008 p. 145.)

In Finland the expectations of consumers are measured by the Consumer Survey upheld by Statistics Finland. Consumer survey data provides a fairly accurate prediction of consumers' behavior. Each month a little more than 1500 people respond to questions regarding the state of their own economy and Finland's economy, both today and in the near future. Answers are on a scale of 'much better' to 'much worse'. Results are processed and presented as a balance figure, which describes respondents' average opinion at any given time. (Statistics Finland 2008.)

Figure 14 illustrates the development of three indicators derived from the results of the Consumer Survey for the period 2006 – 2011. The Consumer Confidence Indicator

(CCI) is the arithmetic mean of the four most important balance figures. (Statistics Finland 2008). The micro indicator is the mean of three balance figures regarding respondents' own economy and the macro indicator is the mean of two balance figures regarding Finland's economy. It is worth mentioning that the Consumer Survey does not include questions regarding groceries, only durable goods (household appliances, electronics etc.). This implies that consumers' expenditure on groceries remains largely unchanged regardless of expectations. On the other hand, durable goods are not a necessity; purchases require more consideration (due to their higher price) and can be postponed until the consumer's perception of the economy is positive.

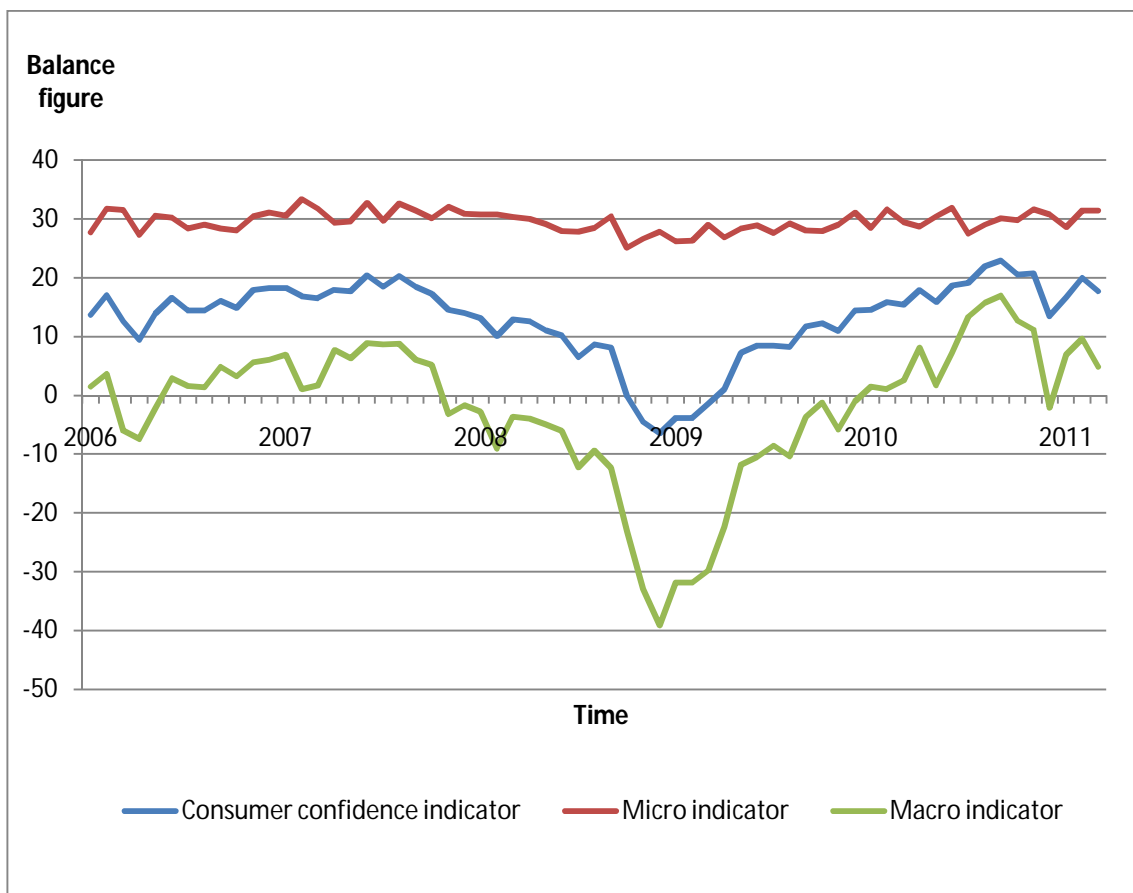


Figure 16. Consumer confidence indicator, micro indicator and macro indicator 2006-2011. (Indicator: A1 Consumer confidence indicator, A3 Micro indicator, A4 Macro indicator; Year: 2006, 2007, 2008, 2009, 2010, 2011; Month: January – December. StatFin 2011f.)

The CCI shows a clear slump with a lowest point in late 2008. This was largely due to consumers' low expectations regarding the nation's economy. However, consumers

have been quite optimistic regarding their households' expenditures. Only a slight decline is visible between 2008 and 2010.

The indicators show that consumers were worried about the future. Regardless of the fact that consumers were not expecting problems in their own economies, their lower expectations of the nation's future can still result in less spending.

5.4.2 Private label goods as an option

During the recession, Finnish consumers increasingly abandoned brand goods for private label goods. In 2008, there was an 8.9 percent increase in private label purchases. Additionally, consumers have favored stores where prices are perceived as lower, such as hypermarkets and Lidl. (Nielsen 2008.)

This trend continued the following year. According to a 2009 Nielsen Global Consumer Confidence Survey, Finnish consumers are switching to cheaper food brands and private labels. The survey indicates cutting down on clothes as a significant way of saving money, but that an increased amount of people intend to switch to cheaper grocery brands. Out of surveyed Finns, 58 percent expressed an intention to switch, up from 49 percent in 2008. The survey further notes that these changes in purchasing behavior affects both store choices and brand choices. (Nielsen 2009.)

The recession had a positive effect on the amount of customers and on sales volume in Lidl. The lowered price level of Lidl's products resulted in only a mild increase in sales value. Lidl's result in 2009 was a loss of €7,9 million, while 2008 was the first profitable year of Lidl Suomi, ending at about €6 million. (Tamminen 2010.)

5.4.3 Inferior and normal goods

In a microeconomic context, inferior goods are goods for which demand falls when income increases, and, conversely, demand rises when income decreases. Normal goods are goods for which the opposite is true; demand rises when income increases, and

demand falls as income decreases. Income elasticity of demand is negative for inferior goods and positive for normal goods. If a basket of goods consists of both inferior and normal goods, the consumer will have to abandon one type of goods in favor for the other, depending on changes in income. (Pindyck 2001 p. 106.)

As shown above, Finnish consumers have abandoned brand goods for private labels during the recession, that is, when income and spending decreases. We can thus equate brand goods with normal goods and private label goods with inferior goods. When income decreases, consumers tend to buy more private label goods.

The substitution effect is the change consumption of a good associated with a change in its price, with a level of utility held constant. (Pindyck 2001 p. 111). The substitution effect concerns a change in the price of one good relative to another. However, in our examination of inferior and normal goods, the substitution effect is ignored. We assume the increase in the price level of groceries affects both private label and brand goods the same amount. In effect this means the budget line would simply shift inward, as it does when income decreases, but not change its inclination. (Pindyck 2001 p. 78).

Figure 17 illustrates a consumer's choice to increase the amount of inferior goods in the market basket when income decreases. The horizontal axis indicates the amount of inferior goods in the market basket. The vertical axis indicates the amount of normal goods in the market basket, as well as the level of income.

The budget line indicates all combinations of goods for which the total amount of money spent is equal to income. In other words, all possible market baskets are points on the budget line. (Pindyck 2001 p. 75). In Figure 14, B1 denotes the initial budget line. After a decrease in income, the budget line shifts inward, denoted by B2.

The indifference curve represents all combinations of a market basket that provide a consumer with the same level of satisfaction. (Pindyck 2001 p. 64). The initial indifference curve is denoted by U1. The budget line constrains the consumer. U1 intersects B1 at (I1,N1). This is the initial optimum market basket for the consumer, a basket of I1 inferior goods and N1 normal goods. When income decreases, the indifference curve shifts to its new position, denoted by U2, where it intersects the new

budget line, B2, at (I_2, N_2) . The consumer sacrifices normal goods in favor of inferior goods. The basket now consists of I_2 inferior goods and N_2 normal goods. Note that N_2 is smaller than N_1 , while I_2 is larger than I_1 .

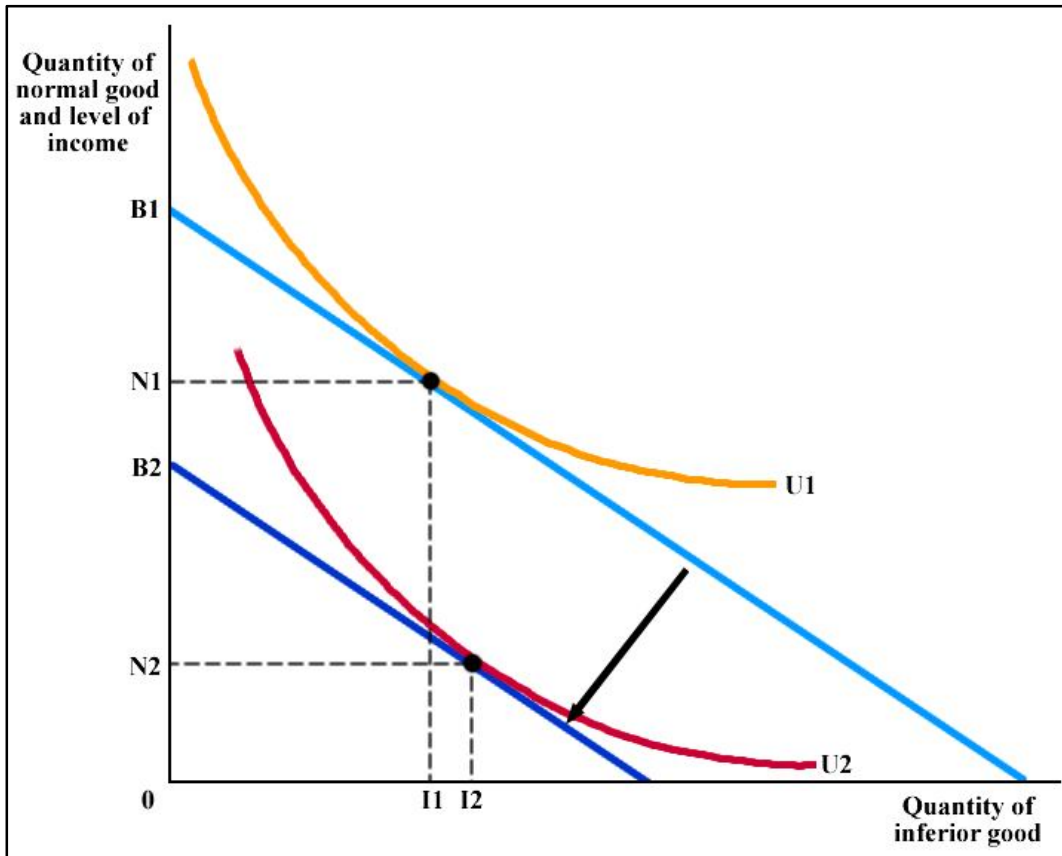


Figure 17. The income effect on normal and inferior goods. (Figure by author, based on Pindyck 2001.)

The income effect refers to the change in demand as a result of a change in income. (Schotter 2001 p. 76). From the perspective of a consumer, an increase in the overall price level (all goods) has the same effect as a decrease in income. In both cases the consumer spends less on goods.

Private label goods supply consumers with an option during a recession. Consumers can still buy roughly the same amount and selection of goods, but for less money. The result is that the sales volume of a store remains largely unchanged while the sales value declines slightly. If income dropped dramatically, consumers might have to refrain from

buying some products altogether, in which case the sales volume of a store would decrease and the sales value would decline significantly.

5.5 Sales of groceries compared to other trade sectors

A recession lowers aggregate demand and, as such, affects all trade sectors to a certain degree. By comparing the value of the turnover of groceries to that of other trade sectors, we can form a rough picture of how groceries fared in the recession.

Table 4 (on the following page) lists the monthly year-on-year change in the value indices of 11 retail trade sectors in Finland from 2008 to the end of 2010 (36 months). This covers the period of negative GDP growth in Finland, as well as some months before and after it. The value index functions the same way as the CPI does; it describes changes in values relative to the value of the base year.

In Table 4, months with a negative year-on-year change are highlighted by bold, italicized font style. On the last row of the table are the sums of all months with negative growth for every trade sector (Neg. Months). The box at the bottom contains the description of the standard industrial classification of each trade sector. Sector A represents groceries, i.e. non-durable goods bought on a regular basis.

Sales of fuel, sporting equipment, information and communication equipment and clothing saw between 10 and 13 months of negative growth. For these sectors, the timing of the negative months is similar: they cover almost the whole of 2009.

Sales of household appliances and other electronics saw 16 consecutive months of negative year-on-year growth starting from July 2008. Telecommunications equipment experienced a 12 month streak of negative growth starting in February 2009.

The heaviest hit trade sectors of those compared were boats and boating accessories and motor vehicles and motorcycles. Both of these sectors saw long stretches of negative year-on-year growth. Percentagewise, monthly changes were much larger than in other trade sectors.

Table 4. Year-on-year monthly changes in value indices of trade sectors 2008-2010. (Year: 2008, 2009, 2010; Month: January – December; Standard Industrial Classification: Non-specialised stores with food beverages or tobacco predominating, automotive fuel, information and communication equipment, telecommunications equipment, electrical household appliances and audio and video equipment, books, newspapers and stationery in specialised stores, sporting equipment, boats and boating accessories in specialised stores, clothing, footwear and leather goods, watches and jewellery, motor vehicles and motorcycles; Index: Year-on-year change %, Value index. StatFin 2011e.)

		Retail sale trade sector (see bottom of table for description)										
Year	Month	A	B	C	D	E	F	G	H	I	J	K
2008	January	8,9%	7,3%	13,6%	16,0%	7,5%	2,3%	7,8%	4,6%	6,3%	13,0%	10,0%
	February	14,7%	10,3%	17,8%	19,0%	34,3%	1,5%	1,0%	11,9%	15,0%	12,6%	17,8%
	March	5,4%	6,3%	5,0%	-0,3%	1,4%	-5,5%	-10,9%	-16,9%	-13,9%	-9,8%	-3,8%
	April	9,9%	5,3%	24,0%	9,6%	12,3%	13,0%	19,0%	10,7%	17,6%	20,4%	14,0%
	May	13,2%	9,4%	13,5%	28,7%	12,1%	3,3%	10,4%	5,8%	10,7%	2,3%	8,3%
	June	5,3%	4,0%	1,0%	2,0%	1,9%	-0,8%	-1,2%	-9,8%	-5,2%	-4,3%	-2,7%
	July	11,3%	9,0%	10,4%	23,9%	-7,9%	2,9%	5,1%	-8,2%	5,2%	-2,0%	0,1%
	August	6,4%	2,6%	3,8%	8,2%	-23,1%	-7,0%	6,6%	-17,5%	9,9%	-12,3%	-1,1%
	September	8,5%	9,1%	8,8%	41,0%	-11,9%	3,1%	5,3%	-16,0%	6,1%	-0,1%	2,5%
	October	11,6%	0,3%	-0,9%	10,8%	-7,7%	-1,4%	4,5%	-11,1%	6,1%	-13,8%	-1,9%
	November	2,7%	-10,2%	5,0%	-4,6%	-13,4%	-3,6%	0,1%	-19,3%	2,3%	0,7%	-5,1%
	December	6,3%	-12,3%	16,4%	-8,5%	-8,2%	-2,8%	1,0%	-3,1%	-2,0%	15,9%	-3,9%
2009	January	7,9%	-14,4%	-7,3%	3,1%	-16,3%	-6,2%	15,4%	-8,4%	2,1%	-29,7%	-4,9%
	February	-1,0%	-17,9%	-10,3%	-16,0%	-34,7%	-6,7%	3,4%	-18,6%	-7,0%	-23,5%	-3,6%
	March	0,9%	-16,6%	-1,6%	-18,4%	-17,0%	-7,0%	5,2%	-11,5%	3,4%	-7,8%	-1,7%
	April	5,0%	-13,6%	-11,1%	-21,5%	-7,1%	-12,1%	-5,7%	-47,0%	-5,7%	-25,5%	-8,3%
	May	0,1%	-14,8%	-12,2%	-25,9%	-19,5%	-11,4%	-1,9%	-37,5%	-6,6%	-23,1%	-12,4%
	June	3,6%	-14,4%	-3,6%	-9,1%	-7,4%	-7,1%	-2,3%	-26,1%	1,2%	-10,4%	-4,5%
	July	3,0%	-16,0%	-11,0%	-20,5%	-5,5%	-10,0%	-2,5%	-18,3%	-1,7%	-10,6%	-1,4%
	August	1,3%	-13,2%	-14,9%	-5,6%	-9,7%	-8,2%	-3,1%	-9,4%	-7,1%	-11,6%	-1,6%
	September	1,2%	-16,9%	-5,4%	-15,5%	-4,6%	-6,6%	-1,2%	-20,4%	-6,8%	-8,9%	-1,1%
	October	0,0%	-8,5%	-8,0%	-14,0%	-5,7%	-7,3%	4,4%	-14,3%	-0,1%	-2,8%	-4,2%
	November	3,3%	-8,6%	-6,0%	-3,4%	10,3%	-5,2%	-0,6%	10,1%	-6,2%	-0,6%	-1,1%
	December	2,8%	5,9%	-2,8%	-5,0%	3,3%	-1,6%	19,7%	-9,0%	5,2%	5,1%	4,4%
2010	January	-0,2%	2,6%	3,9%	-14,6%	-1,9%	-10,8%	13,1%	-12,3%	-3,8%	1,7%	-0,8%
	February	3,4%	2,9%	4,7%	5,5%	4,8%	-3,5%	-6,2%	-12,1%	-0,5%	3,5%	-4,5%
	March	8,3%	6,2%	12,2%	25,2%	6,7%	3,3%	2,4%	-22,8%	7,5%	2,7%	11,4%
	April	2,7%	5,8%	10,3%	17,5%	-10,1%	-5,1%	6,3%	3,4%	1,9%	11,9%	6,0%
	May	3,2%	4,9%	10,9%	13,3%	6,9%	-5,2%	2,2%	7,1%	3,2%	18,5%	3,1%
	June	2,8%	3,5%	15,3%	40,9%	8,2%	2,9%	3,4%	5,3%	1,2%	22,5%	22,2%
	July	6,2%	7,1%	2,5%	15,2%	5,8%	-4,7%	1,4%	-3,8%	5,4%	-0,4%	8,7%
	August	3,9%	4,4%	20,9%	22,5%	9,2%	2,4%	3,4%	1,0%	4,4%	17,1%	7,4%
	September	5,3%	3,5%	9,2%	43,5%	10,4%	-0,2%	6,8%	-1,3%	7,6%	14,1%	8,7%
	October	4,6%	4,0%	6,1%	13,4%	3,4%	-5,2%	6,1%	-10,0%	6,3%	11,2%	14,2%
	November	8,0%	15,2%	9,7%	51,6%	0,8%	0,0%	27,2%	10,2%	7,6%	21,3%	11,5%
	December	8,6%	10,4%	6,8%	5,2%	-3,9%	-3,9%	13,3%	7,2%	2,4%	20,3%	2,7%
Neg. Months		2	13	13	15	19	26	10	25	13	18	19
A = non-specialised stores with food, beverages or tobacco predominating B = automotive fuel C = information and communication equipment D = telecommunications equipment E = electrical household appliances and audio and video equipment F = books, newspapers and stationery in specialised stores G = sporting equipment H = boats and boating accessories in specialised stores I = clothing, footwear and leather goods J = motor vehicles and motorcycles K = watches and jewellery												

There is a clear difference between the year-on-year monthly changes in grocery sales and other trades sectors during the recession. Sales of groceries saw only two months of

negative growth, which was not enough to curb annual growth (See chapter 5.2). This implies that groceries are much less affected by recessions than other trade sectors and, in fact, of the sectors examined, groceries were the least affected.

6 CONCLUSIONS

The research results are conclusive and enable us to answer the research questions, but not extraordinary or shocking. A simple conclusion is that the recession did not hurt the grocery business much, it only slowed it down. However, because the trade is characterized by thin profit margins, a decrease in sales volume and profit can be considered significant. Sales value of the Finnish grocery trade continued to grow through the recession, albeit slower than in preceding years. The total amount of people employed by the grocery trade also continued to increase through the recession.

Compared to the years preceding the recession, it can be stated that grocery sales were affected by the downturn. On the other hand, compared to other trade sectors during the period examined, grocery sales fared well, seeing only two months of negative annual monthly growth. All sectors examined saw a decline in sales during the recession, but groceries were by far the least affected.

Research also indicates private label goods as a buffer for consumers, enabling them to cut expenditures but still buy roughly the same items. Modern recessions in developed countries have not been so bad that consumers would be forced to eliminate goods from their shopping baskets. During a recession, like the one Finland experienced 2008 - 2009, consumers have the option to downgrade from brand to private label goods.

The global recession was significant and its effects are arguably still visible worldwide. Based on the research, however, it can be inferred that groceries are among the last things consumers are prepared to cut back on during harder times. Even though the grocery trade is characterized by thin profit margins, it could be described as a safe business. The fact that the Finnish grocery market is dominated by a few big groups helps them weather a recession quite well.

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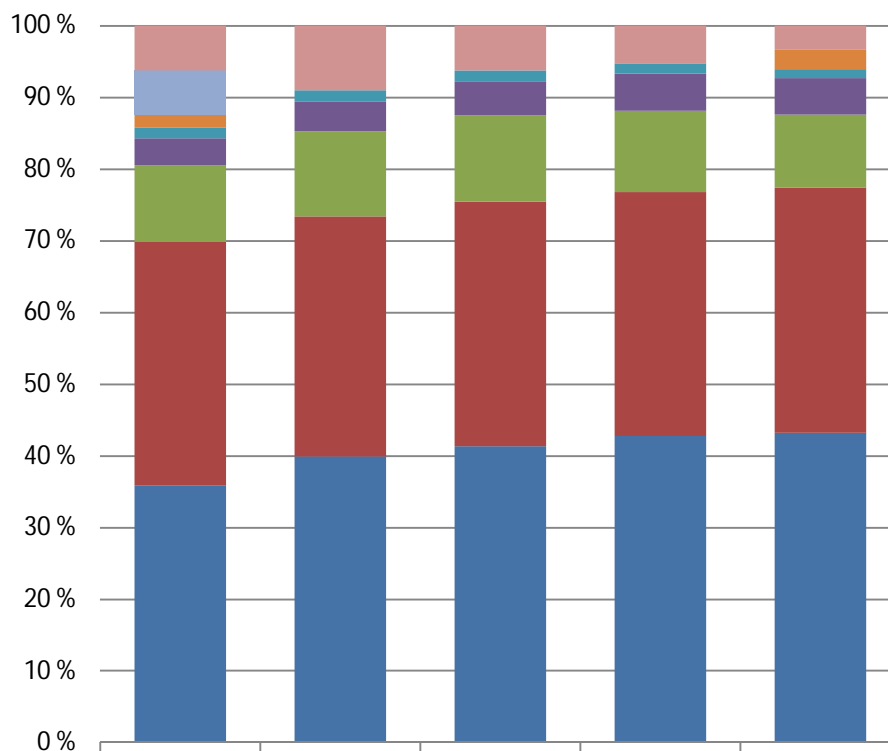
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APPENDICES

Appendix 1. Consumer price index, monthly figures, monthly change and annual change.
Base value 2005=100. (StatFin 2011c.)

Year	Month	Point figure	Monthly change (%)	Annual change (%)	Year	Month	Point figure	Monthly change (%)	Annual change (%)
2005	January	99,09	.	.	2008	January	106,15	1,03 %	3,84 %
	February	99,79	0,71 %	.		February	106,69	0,51 %	3,72 %
	March	100,09	0,30 %	.		March	107,64	0,95 %	3,86 %
	April	100,19	0,10 %	.		April	107,80	0,15 %	3,51 %
	May	99,91	-0,28 %	.		May	108,37	0,53 %	4,17 %
	June	100,02	0,11 %	.		June	108,76	0,36 %	4,40 %
	July	99,59	-0,43 %	.		July	108,60	-0,16 %	4,35 %
	August	99,96	0,37 %	.		August	109,08	0,44 %	4,66 %
	September	100,50	0,54 %	.		September	109,62	0,50 %	4,71 %
	October	100,42	-0,08 %	.		October	109,60	-0,02 %	4,37 %
	November	100,18	-0,24 %	.		November	109,05	-0,55 %	3,61 %
	December	100,20	0,02 %	.		December	108,72	-0,30 %	3,47 %
2006	January	99,88	-0,32 %	0,80 %	2009	January	108,46	-0,24 %	2,18 %
	February	100,68	0,80 %	0,89 %		February	108,55	0,08 %	1,74 %
	March	100,99	0,31 %	0,90 %		March	108,63	0,08 %	0,92 %
	April	101,52	0,52 %	1,33 %		April	108,61	-0,02 %	0,75 %
	May	101,64	0,12 %	1,73 %		May	108,41	-0,18 %	0,04 %
	June	101,74	0,10 %	1,72 %		June	108,67	0,24 %	-0,08 %
	July	101,47	-0,27 %	1,89 %		July	107,97	-0,70 %	-0,58 %
	August	101,86	0,38 %	1,90 %		August	108,31	0,31 %	-0,71 %
	September	102,00	0,14 %	1,49 %		September	108,50	0,18 %	-1,02 %
	October	102,27	0,26 %	1,84 %		October	107,92	-0,53 %	-1,53 %
	November	102,32	0,05 %	2,14 %		November	108,03	0,11 %	-0,94 %
	December	102,43	0,11 %	2,23 %		December	108,13	0,09 %	-0,54 %
2007	January	102,22	-0,21 %	2,34 %	2010	January	108,26	0,12 %	-0,18 %
	February	102,86	0,63 %	2,17 %		February	108,68	0,39 %	0,12 %
	March	103,64	0,78 %	2,62 %		March	109,24	0,56 %	0,56 %
	April	104,14	0,48 %	2,58 %		April	109,54	0,27 %	0,86 %
	May	104,03	-0,11 %	2,35 %		May	109,44	-0,09 %	0,95 %
	June	104,18	0,14 %	2,40 %		June	109,67	0,21 %	0,92 %
	July	104,07	-0,11 %	2,56 %		July	109,11	-0,56 %	1,06 %
	August	104,22	0,14 %	2,32 %		August	109,57	0,42 %	1,16 %
	September	104,69	0,45 %	2,64 %		September	110,03	0,42 %	1,41 %
	October	105,01	0,31 %	2,68 %		October	110,45	0,38 %	2,34 %
	November	105,25	0,24 %	2,86 %		November	110,72	0,27 %	2,49 %
	December	105,07	-0,17 %	2,58 %		December	111,27	0,50 %	2,90 %

Market shares of grocery groups in Finland 2005 - 2009



	2005	2006	2007	2008	2009
Other private*	6,2 %	9,0 %	6,2 %	5,2 %	3,3 %
Spar group	6,2 %				
Other groups	1,8 %				2,7 %
Stockmann	1,5 %	1,6 %	1,5 %	1,4 %	1,3 %
Lidl	3,7 %	4,1 %	4,7 %	5,1 %	5,1 %
Suomen lähikauppa	10,8 %	11,9 %	11,9 %	11,3 %	10,2 %
K-group	33,9 %	33,5 %	33,9 %	33,7 %	34,2 %
S-group	35,9 %	39,9 %	41,0 %	42,4 %	43,2 %

* Figures for 2006, 2007 and 2008 include figures from Other groups

Appendix 3. . Tables on number of stores according to type and group in 2009 and grocery sales by store type in 2000 – 2009. (Finnish Grocery Trade 2010-2011 p. 29.)

Number of stores according to type and group in 2009	
Store type	Total 1.1.2010
Hypermarkets	143
Department stores	126
Supermarkets, large	557
Supermarkets, small	442
Self-service markets, large	1,084
Self-service markets, small	523
Small stores	476
Speciality stores	541
Indoor markets	25
Total 1.1.2010	3,917
Shops on wheels and boats	29
Closed stores	162

SOURCE: A.C. NIELSEN FINLAND OY

Grocery sales by store type in 2000–2009 (€ million)										
Store type	2000	2001*	2002	2003	2004	2005**	2006	2007	2008	2009
Hypermarkets	2,092	2,338	2,534	2,618	2,692	2,772	2,984	3,150	3,460	3,706
Department stores	691	443	509	549	585	611	615	632	654	662
Supermarkets, large	2,661	3,118	3,275	3,458	3,718	3,789	3,984	4,347	4,704	4,827
Supermarkets, small	2,006	1,944	1,913	1,838	1,665	1,648	1,615	1,686	1,826	1,850
Self-service markets, large	1,410	1,693	1,879	1,921	1,986	1,916	1,950	2,102	2,301	2,295
Self-service markets, small	485	512	513	536	515	490	481	492	514	492
Small stores	191	172	173	194	212	216	238	271	308	332
Speciality stores and indoor markets	145	144	152	151	155	158	160	163	167	175
Total	9,681	10,364	10,948	11,265	11,528	11,600	12,027	12,843	13,934	14,339
Shops on wheels and boats	33	31	27	23	20	18	16	14	12	12
Closed stores	141	119	72	120	90	289	359	190	151	178
Total	9,855	10,514	11,047	11,408	11,638	11,907	12,402	13,047	14,097	14,529

SOURCE: A.C. NIELSEN FINLAND OY

Appendix 4. GDP income approach, quarterly, 2004-2010. Market prices, current prices. (StatFin 2011a.)

Year	Quarter	GDP, M€ Market prices Current prices	Change from corresponding quarter previous year	Total GDP/year
2004	Q1	35486		152148
	Q2	37888		
	Q3	38281		
	Q4	40493		
2005	Q1	36753	3,4 %	157307
	Q2	39380	3,8 %	
	Q3	39556	3,2 %	
	Q4	41618	2,7 %	
2006	Q1	38706	5,0 %	165643
	Q2	41202	4,4 %	
	Q3	41461	4,6 %	
	Q4	44274	6,0 %	
2007	Q1	41857	7,5 %	179702
	Q2	44911	8,3 %	
	Q3	45023	7,9 %	
	Q4	47911	7,6 %	
2008	Q1	43939	4,7 %	184649
	Q2	47126	4,7 %	
	Q3	46328	2,8 %	
	Q4	47256	-1,4 %	
2009	Q1	40948	-7,3 %	171193
	Q2	42771	-10,2 %	
	Q3	42615	-8,7 %	
	Q4	44859	-5,3 %	
2010	Q1	41229	0,7 %	180295
	Q2	45506	6,0 %	
	Q3	45066	5,4 %	
	Q4	48494	7,5 %	

Appendix 5. Consumer price index 2005=100. Commodity groups: 0 CPI, 01 Food and non-alcoholic beverages. (StatFin 2011c.)

Year	Month	CPI	Food and non-alcoholic beverages	Year	Month	CPI	Food and non-alcoholic beverages
2005	January	99,09	100,37	2008	January	106,15	109,44
	February	99,79	101,82		February	106,69	109,72
	March	100,09	102,12		March	107,64	110,92
	April	100,19	100,77		April	107,8	111,25
	May	99,91	100,18		May	108,37	112,58
	June	100,02	99,61		June	108,76	111,38
	July	99,59	99,53		July	108,6	112,48
	August	99,96	98,9		August	109,08	112,23
	September	100,5	99,02		September	109,62	113,56
	October	100,42	98,69		October	109,6	113,79
	November	100,18	99,18		November	109,05	115,39
	December	100,2	99,76		December	108,72	115,55
2006	January	99,88	100,52	2009	January	108,46	117,13
	February	100,68	102		February	108,55	117,89
	March	100,99	101,4		March	108,63	117,74
	April	101,52	101,68		April	108,61	117,77
	May	101,64	101,42		May	108,41	115,94
	June	101,74	101,13		June	108,67	116,37
	July	101,47	100,97		July	107,97	115,4
	August	101,86	100,92		August	108,31	114,45
	September	102	101,05		September	108,5	114,52
	October	102,27	101,25		October	107,92	108,1
	November	102,32	101,94		November	108,03	109,97
	December	102,43	102,09		December	108,13	110,25
2007	January	102,22	103,43	2010	January	108,26	110,14
	February	102,86	103,63		February	108,68	110,6
	March	103,64	103,36		March	109,24	110,82
	April	104,14	104,64		April	109,54	111,19
	May	104,03	102,81		May	109,44	109,02
	June	104,18	102,27		June	109,67	109,1
	July	104,07	103,49		July	109,11	108,79
	August	104,22	102,48		August	109,57	109,02
	September	104,69	103,08		September	110,03	110,39
	October	105,01	103,31		October	110,45	111,41
	November	105,25	104,69		November	110,72	112,38
	December	105,07	104,36		December	111,27	113,16

Appendix 6. Unemployment in Finland 2004-2011, monthly data. Variables: Active population, Unemployed, Unemployment rate. (StatFin 2011b.)

Year	Month	Active population (1000 pers)	Unemployed (1000 pers)	Unemployment rate (%)	Year	Month	Active population (1000 pers)	Unemployed (1000 pers)	Unemployment rate (%)
2004	Jan	2521	241	9,5 %	2008	Jan	2661	181	6,8 %
	Feb	2537	229	9,0 %		Feb	2633	168	6,4 %
	Mar	2556	242	9,5 %		Mar	2655	180	6,8 %
	Apr	2566	272	10,6 %		Apr	2666	165	6,2 %
	May	2691	313	11,6 %		May	2800	247	8,8 %
	Jun	2721	241	8,9 %		Jun	2862	195	6,8 %
	Jul	2701	212	7,8 %		Jul	2766	144	5,2 %
	Aug	2626	209	8,0 %		Aug	2717	151	5,6 %
	Sep	2550	183	7,2 %		Sep	2670	158	5,9 %
	Oct	2552	203	8,0 %		Oct	2677	155	5,8 %
	Nov	2569	207	8,1 %		Nov	2671	161	6,0 %
	Dec	2531	195	7,7 %		Dec	2658	161	6,1 %
2005	Jan	2547	249	9,8 %	2009	Jan	2639	184	7,0 %
	Feb	2585	237	9,2 %		Feb	2641	200	7,6 %
	Mar	2584	219	8,5 %		Mar	2670	222	8,3 %
	Apr	2596	260	10,0 %		Apr	2665	233	8,8 %
	May	2690	274	10,2 %		May	2799	304	10,9 %
	Jun	2760	239	8,7 %		Jun	2821	255	9,1 %
	Jul	2691	197	7,3 %		Jul	2733	211	7,7 %
	Aug	2625	188	7,2 %		Aug	2674	203	7,6 %
	Sep	2584	184	7,1 %		Sep	2628	192	7,3 %
	Oct	2589	185	7,2 %		Oct	2618	215	8,2 %
	Nov	2597	207	8,0 %		Nov	2634	224	8,5 %
	Dec	2597	198	7,6 %		Dec	2616	206	7,9 %
2006	Jan	2578	226	8,7 %	2010	Jan	2617	250	9,5 %
	Feb	2614	219	8,4 %		Feb	2640	242	9,2 %
	Mar	2607	211	8,1 %		Mar	2639	240	9,1 %
	Apr	2609	225	8,6 %		Apr	2666	248	9,3 %
	May	2714	275	10,1 %		May	2775	293	10,5 %
	Jun	2784	225	8,1 %		Jun	2805	248	8,8 %
	Jul	2719	179	6,6 %		Jul	2755	206	7,5 %
	Aug	2691	185	6,9 %		Aug	2689	197	7,3 %
	Sep	2617	179	6,8 %		Sep	2613	183	7,0 %
	Oct	2598	187	7,2 %		Oct	2644	195	7,4 %
	Nov	2619	175	6,7 %		Nov	2616	186	7,1 %
	Dec	2625	168	6,4 %		Dec	2602	204	7,9 %
2007	Jan	2575	195	7,6 %	2011	Jan	2625	215	8,2 %
	Feb	2617	197	7,5 %		Feb	2647	221	8,4 %
	Mar	2648	203	7,7 %					
	Apr	2647	191	7,2 %					
	May	2730	232	8,5 %					
	Jun	2828	209	7,4 %					
	Jul	2756	161	5,9 %					
	Aug	2719	162	5,9 %					
	Sep	2640	168	6,4 %					
	Oct	2658	164	6,2 %					
	Nov	2633	161	6,1 %					
	Dec	2648	158	6,0 %					