#### POLITECNICO DI MILANO

# Scuola di Ingegneria Industriale e dell'Informazione Polo Territoriale di Como

Master of Science in Management Engineering
Academic Year 2014-2015



## CRISIS: PUBLIC POLICIES AND THE REACTIONS OF COMPANIES. A COMPARISON BETWEEN FRANCE AND ITALY

Relatore: Professoressa Lucia Tajoli

Tesi di Laurea Magistrale di: Annoni Martina Rosa

815551

#### **ABSTRACT**

The aim of this thesis is to understand which have been the best set of strategic decisions implemented by the selected companies in order to better react to the crisis, taking into consideration and comparing Italy and France. The companies have been chosen in the food and drink sector and in the automobile one, because are two of the most relevant sectors in the selected countries and moreover because they have quite different characteristics interesting to analyse. The companies are Parmalat Group and Danone Group, for the first sector, and Fiat Group and PSA Peugeot Citroen, for the second one. In order to get the final results, in the first part have been analysed the macroeconomics aspects concerning the crisis of 2007, as the causes, the effects and the public policies put in place by the Governments; consequently have been analysed the Italian and French industry structure and then, with an higher focus, the food and drink and automobile sector; in this way the framework has been outlined. In the second part, considering the Annual Report of the companies, the four case studies are presented; for each company has been defined the strategic decisions implemented, dividing them in Investment strategies and Retrenchment strategies (Kitching, 2009) and consequently the economic performances have been analysed, in order to find a relationship between the strategies and the performance indicators. In this way, considering also the external context and variables, it has been possible to understand which characteristics and decisions have been fundamental during the recession period in order to overcome it and grow.

#### **SOMMARIO**

Il seguente lavoro di tesi ha come obiettivo principale l'analisi e l'identificazione del miglior set di decisioni strategiche implementate delle aziende durante il periodo di crisi dal 2007 al 2013, comparando l'Italia e la Francia. Sono stati presi in esame due settori in particolare e sono il settore alimentare e il settore automobilistico, poiché sono due dei settori più importanti nei due paesi, per livello di fatturato e impiegati e poiché hanno caratteristiche differenti interessanti da esaminare; per il primo sono state analizzate il gruppo Parmalat e il gruppo Danone, mentre per il secondo il gruppo Fiat e PSA Peugeot Citroen. Il lavoro è stato strutturato nella seguente maniera: nella prima parte sono stati esaminati gli aspetti macroeconomici della crisi del 2007, quali le cause, gli effetti e le politiche adottate dal governo Italiano e da quello Francese; successivamente per poter completare il quadro introduttivo è stata analizzata la struttura industriale dei due paesi e sono stati esaminati in dettaglio i due settori scelti, l'alimentare e l'automobilistico. Nella seconda parte vengono esposti i quattro case studies, corrispondenti alle quattro aziende scelte, tenendo in considerazione i dati dei rapporti annuali delle compagnie. Per ogni azienda sono state identificate le scelte strategiche adottate classificandole in retrenchment strategies (volte alla riduzione delle spese) e investment strategies (volte allo sviluppo e alla crescita) (Kitching, 2009), e successivamente sono stati calcolati gli indicatori di performance, al fine di stabilire l'esistenza di un nesso tra l'attuazione delle scelte strategiche e i risultati finali. In questo modo, tenendo presente anche delle caratteristiche interne dell'azienda e degli aspetti del contesto esterno, è stato possibile identificare le decisioni che sono risultate fondamentali per poter sopravvivere e crescere in periodo di crisi.

## <u>INDEX</u>

INTRODUCTION	9
1. THE CRISIS	15
1.1 WHAT IS A CRISIS?	15
1.2 WHAT CAUSED THE FINANCIAL CRISIS OF 2008?	18
1.3 AN OVERVIEW OF THE EFFECTS OF THE CRISIS	22
1.3.1 THE EFFECTS OF THE CRISIS IN EU	23
1.3.2 THE EFFECTS OF THE CRISIS IN ITALY	31
1.3.3 THE EFFECTS OF THE CRISIS IN FRANCE	35
1.4 THE GOVERNMENT PUBLIC POLICIES	40
1.4.1 EUROPEAN PUBLIC POLICIES	40
1.4.2 ITALIAN PUBLIC POLICIES	43
1.4.3 FRENCH PUBLIC POLICIES	45
1.4.4 COMPARISON BETWEEN ITALY AND FRANCE	49
2. INDUSTRY STRUCTURE	50
2.1 ITALIAN INDUSTRY STRUCTURE	50
2.2 FRENCH INDUSTRY STRUCTURE	60
3. SECTORS ANALYSIS	68
3.1 ITALIAN FOOD SECTOR	69
3.2 FRENCH FOOD SECTOR	77
3.3 ITALIAN AUTOMOBILE SECTOR	
3.4 FRENCH AUTOMOBILE SECTOR	94
4. CASE STUDIES -Data and information collection-	102
4.1 MY HYPOTHESIS AND THE THEORY BEHIND	102
4.2 PARMALAT GROUP –Case study	109
4.3 DANONE GROUP -Case study	123
4.4 COMPARISON BETWEEN PARMALAT GROUP AND DANONE GROUP	139
4.5 FIAT GROUP -Case study	143
4.6 PSA PEUGEOT CITROEN -Case study	163
4.7 COMPARISON BETWEEN FIAT GROUP AND PSA PEUGEOT CITROEN	182
5. CONCLUSION	185
RIBLIOGRAPHY	190

## **GRAPHIC INDEX**

Graphic 1- % growth GDP Europe and USA	
Graphic 2- Final consumption expenditure households Europe and USAUSA	25
Graphic 3- Inward FDI flows Europe and USA	
Graphic 4- Outward FDI flows Europe and USA	26
Graphic 5- Unemployment rate Europe and USA	27
Graphic 6- Inflation rate Europe and USA	
Graphic 7- Public deficit Europe and USA	
Graphic 8- Italian GDP growth %	
Graphic 15- French GDP growth %	36
Graphic 22- % Italian internationalized companies (2008-2013)	52
Graphic 23- % number of Italian industrialized companies per class dimension	
Graphic 24- Number of familiar and non-familiar management in Italy	
Graphic 25- % variation turnover per main sector in Italy (2010-2013)	55
Graphic 26- % manufacturing sectors in 2007 and 2012 in Italy	
Graphic 27- Amount of credit crunch per class dimension in Italy Italy	
Graphic 28- Main financing sources in 2012 in Italy	58
Graphic 29- Evolution of number of founded enterprises in France	
Graphic 30- %manufacturing sector in 2008 and 2011 in France	63
Graphic 31- Structure of the financial debt of the companies in France	
Graphic 32- Companies' Investment rate in France	
Graphic 33-% variation of the turnover Italian food sector	
Graphic 34- Italian food and drink sector turnoverin million €	
Graphic 35- % turnover per specific product 2007-2013 Italian food and drink sector	
Graphic 36- Italian export per specific industry in food and drink sector 2008-2013	
Graphic 37- Italian import per specific industry in food and drink sector 2008-2013	73
Graphic 38- French food and drink sector turnover	
Graphic 39- % turnover per specific product French food and drink sector	
Graphic 40- Evolution import-export French food and drink sector	
Graphic 41- French food and drink sector export per specific sub-sector	80
Graphic 42- French food and drink sector import per specific product	
Graphic 43- Italian automotive sector export per year	
Graphic 44- Italian automotive sector import per year	90
Graphic 45- Evolution of R&D expenses of Italian automotive sector	
Graphic 46- French automobile sector export (in billion €)	97
Graphic 47- French automobile sector import (in billion €)	98
Graphic 48- R&D investment in the French automobile sector	99
Graphic 49- Parmalat Group Revenue stream (in million €)	110
Graphic 50- Danone Group total sales In million €	
Graphic 51- Comparison Parmalat Group- Danone Group total revenues(in million €)	140
Graphic 52- Fiat Group total sales (in units)	
Graphic 53- Fiat Group total employees	
Graphic 54- Peugeot Citroen total sales (in units)	
Graphic 55- Comparison Fiat Group- Peugeot Citroen units soldsold	183

## **TABLE INDEX**

Table 1- %growth GDP European countries	30
Table 2- Main components Italian GDP	32
Table 3- Italian unemployment rate	33
Table 4- Italian bank long term interest rate	33
Table 5-Italian gross public debt	34
Table 6- Italian total general government expense	
Table 7- Italian taxation level	
Table 8- Italian deficit of the current account	35
Table 9- Main components French GDP	36
Table 10- French unemployment rate	37
Table 11- French long term bank interest rate	38
Table 12- French gross public debt	38
Table 13- French total general government expense	
Table 14- French taxation level	
Table 15- French deficit of the current account	39
Table 16- Government support (% GDP) France and Italy	49
Table 17- Number of firms and employees per sectors in 2009 in Italy	
Table 18- Number of firms and employees per sectors in 2012 in Italy	
Table 19- financial situation of companies in 2008 in Italy	
Table 20- Firms classification per dimension in France	
Table 21- Firms classification per dimension in 2008 in France	
Table 22- Firms classification per dimension in 2012 in France	
Table 23- % evolution of turnover and export in France	
Table 24- Evolution of the debt in French companies in %	
Table 25- Level of investment and auto-financing in France	
Table 26-Evolution of value added per main sector in Italy	
Table 27- Evolution of total number of employees in the Italian food and drink sector	
Table 28- Number of firms in Italian food and drink sector	
Table 29- Structure of Italian food and drink companies	
Table 30- Most important companies in the food and drink sector in Italy	
Table 31- French food and drink Sub-sector value added (in million €)	
Table 32-Number of employees in French food and drink sub-sector	
Table 33- Structure of French food and beverage companies	
Table 34- 10 most important companies per turnover French food and drink sector	
Table 35- Evolution number of enrolled auto vehicles in Italy	
Table 36- Italian production automotive sector	88
Table 37- Number of cars, trucks and buses in circulation in Italy	
Table 38- Number of firms, employees, average dimension of Italian automotive sector	
Table 39- % number of companies automobile sector per dimension in Italy	
Table 40- % number of employees per company dimension in Italy Italy	
Table 41- Ten most important car producer in the world (in million)	
Table 42- Evolution enrolled vehicles in France	
Table 43- Enrolled diesel, electric and hybrid cars in France	95
Table 44- Vehicles French production	
Table 45- French constructors production in France	
Table 46- Balance external market French automobile sector	
Table 47- Total number of firms and employees in the French automobile sector	
Table 48- Ten most important car companies in the world (in million units)	
Table 49- Parmalat Group costs (in € millions)	
Table 52- Parmalat Group total inventories (in €millions)	

Table 50- Parmalat Group Total number of employees	114
Table 51- Parmalat Group total plants	116
Table 53- Parmalat Group Long and short debt level (in € million)	
Table 54- ROE Parmalat Group evolution	
Table 55- ROI Parmalat Group evolution	118
Table 56- ROS Parmalat Group evolution	119
Table 57- Current Ratio Parmalat Group evolution	119
Table 58- Quick Ratio Parmalat Group evolution	120
Table 59- Indebtedness level Parmalat Group evolution	
Table 60- Treasury Margin Parmalat Group evolution	121
Table 61- Structure Margin Parmalat Group evolution	122
Table 62- Net Working Capital Parmalat Group evolution	
Table 63- Danone group net sales per business line	
Table 64- Danone Group costs (in € millions)	
Table 65- Danone Group inventory level (in € millions)	127
Table 66- Danone Group number of production plants	128
Table 67- Danone Group number of employees	
Table 68- Danone Group total debt (in € millions)	130
Table 69- Danone Group R&D expenses (in million €)	
Table 70- Danone Group ROE evolution	
Table 71- Danone Group ROI evolution	
Table 72- Danone Group ROS evolution	
Table 73- Danone Group Current Ratio evolution	
Table 74- Danone Group Quick Ratio evolution	
Table 75- Danone Group Indebtedness level evolution	
Table 76- Danone Group Treasury Margin evolution	
Table 77- Danone Group Structure Margin evolution	
Table 78- Danone Group Net Working Capital evolution	
Table 79- Parmalat Ggroup Danone Group indicators comparison	
Table 80- Fiat Group car producers revenues (in million €)	
Table 81- Fiat Group Main costs (in million €)	
Table 83- Fiat Group total inventories (in million €)	
Table 82- Fiat Group Number of plants	
Table 84- Fiat Group debt breakdown (in million €)	
Table 85- Fiat Group R&D expenses (in million €)	
Table 86- Fiat Group number of R&D centres	
Table 87- Fiat Group innovations projects	
Table 88- Fiat group ROE evolution	
Table 89- Fiat Group ROI evolution	
Table 90- Fiat Group ROS evolution	
Table 91- Fiat Group Current Ratio evolution	
Table 92- Fiat Group Quick Ratio evolution	
Table 93- Fiat Group Indebtedness level evolution	
Table 94- Fiat Group Treasury Margin evolution	
Table 95- Fiat Group Structure Margin evolution	
Table 96- Fiat Group Net Working Capital evolution	
Table 97- Peugeot Citroen revenues (in million €)	
Table 98- Peugeot Citroen costs (in million €)	
Table 99- Peugeot Citroen total inventories (in thousands of units)	
Table 100- Peugeot Citroen employees and plantsTable 101- Peugeot Citroen debt compositionin million €	
Table 101- Peugeot Citroen debt compositionin million €	
TAUNG 1945 LUBGUNGUNGUNGUNGUN NIKU ENDENSES HIL HILIUH T.J	

Table 103- PSA ROE evolution	177
Table 104- PSA ROI evolution	177
Table 105- PSA ROS evolution	178
Table 106- PSA Current Ratio evolution	178
Table 107- PSA Quick Ratio evolution	179
Table 108- PSA Indebtedness level evolution	179
Table 109- PSA Treasury Margin evolution	180
Table 110- PSA Structure Margin evolution	180
Table 111- PSA Net Working Capital evolution	181
Table 112- Fiat Group, PSA Group ROE, ROI, ROS comparison	

## INTRODUCTION

The title of the thesis is "Crisis: public policies and the reactions of the companies. A comparison between France and Italy". I chose this subject because I have always been interested in the crisis and in the aspects related to it. My aim was to understand what caused the financial crisis of the year 2008, which have been the main effects and how the companies were able to react to it, considering also the performances connected with their strategic decisions. The decision to compare Italy and France has been conditioned by the opportunity that I had to participate at the Erasmus Program in Paris from March 2015 to April 2015. During this period I had the opportunity to interact with the French world and to collect information about the country and the companies. Always in France I had the opportunity to join a French course in collaboration with the university Mines ParisTech, which gave me the possibility to go to Bruxelles twice in order to speak and debate with some members of the European Commission, which work in the area of Enterprises Growth. They gave me information about some companies and about the European economic area, presenting me materials as presentations or studies, drawn up by the European Commission.

In detail the aim of this work has been to understand which set of strategic actions, implemented by the companies, allowed them to better react to the crisis, underlining which was the initial situation of the companies and the general context in which they were operating during those difficult years. After the definition of the strategic decisions it has been important to highlight the results during the years of the firms, by selecting some indicators, and by comparing the results between the companies, in order to set possible relationship between the indexes and the decisions implemented.

In order to reach the conclusions, the decision has been to structure the thesis starting from the most general arguments of the crisis, in order to define the context, and through a continuous more focus, in the last part are described the companies and their decisions. It is possible to say that the work is divided in four blocks: the first one is the part in which the crisis of 2008 is described, taking into consideration the causes, the effects and the public policies defined by the Governments; in this way the context is defined. The second part is the analysis of the industrial structure in Italy and in France, in order to understand the most important similarities and differences between the two countries

and in order to outline the changes during the period under analysis. The third part is the focus on the sectors that have been decided to analyse, which are the food and drink sector and the automotive one. In the fourth part an higher focus is reached and the four selected companies in the two sectors have been analysed in details; the firms are Parmalat Group and Danone Group, for the food and drinks sector and Fiat Group and PSA Peugeot Citroen, for the automotive.

Hereunder are reported the chapters, in which the work has been divided:

In *chapter 1* the subject is the crisis in all its aspects. The chapter starts with the definition of the term given by two historic economists Marx and Keynes in order to introduce the argument and the subject. It is followed by the analysis of the previous crisis, to highlight possible similarities or differences. Furthermore are described the causes of the crisis, which started in United States in 2007 after the financial market out of control, caused by the excessive use of financial securities and derivatives. The crisis spread all over Europe and the rest of the world, affecting also the Italian and the French markets. At this point, it has been reported an overview of the effects of the crisis, first of all, in Europe, by considering the most important macro-economic indicators as GDP growth and the private consumption, in order to assess the situation of the market before, during and after the crisis. Moreover have been analysed Italy and France in details, by considering as well the macroeconomic indexes. In both countries it is possible to say that the main effects have been the dramatic decrease of the GDP, and consequently of the employment rate, a falling in the real wages and of the consumer confidence, a credit crunch which caused a decline in bank lending and therefore lower investment and a substantial decrease of the imports, due to the weak internal market. After the assessment of the conditions in the two countries, the public policies implemented by, in primis, Europe and consequently Italy and France are reported, in order to understand the reactions of the Governments and the decisions implemented in order to help the population and the industries. In order to perform this part, which is substantially a literature review of the subjects and a data analysis of the indicators, different articles, studies and university papers have been taken into considerations; in order to have a more complete vision of the current crisis, documentaries and film have been analysed. For the analysis of the data, the most important sources have been the national statistics website as ISTAT and INSEE, along with data analysis and elaboration website as

Worldbank and Eurostat, and for Europe analysis have been taken into consideration OECD website and the European Commission one.

In *chapter 2*, the attention is moved to the industrial structure of the two countries in order to understand how it has changed. This section is structured in this way: first of all Italy is analysed and sequentially France. For the two countries, considering the availability of information and data, a series of characteristics have been analysed as the number of firms and the number of employees. At this point the main characteristics of the industry structures, in which the selected companies of the case studies were found, have been delineated and the main similarities and differences between the two countries are clear. The most important difference is that Italy has an higher number of firms of small medium dimension and a very low number of big companies, on the contrary France is characterised by an higher number of big and very big firms. This different industrial structure is one of the factor that allowed France to grow and exit from the crisis before Italy, because the big enterprises have been the ones able to increase the internationalisation, increase the export, toward growing countries, and in this way increase the internal production and employment; on the other hand Italy, with its enterprises, mainly familiar and characterised by smaller dimension, which were no able to export and increase their internationalisation, suffered much more, and this caused a more dramatic second recession happened in 2011-2012, after the recession of 2008-2009.

In *chapter 3*, the focus is moved from the total industrial structure of the two countries to the analysis of the sectors, which are the food and drink sector and the automotive one. These two sectors have been chosen because they are two of the most important sectors in the analysed countries, and are responsible of high turnover and employment rate. Moreover these sectors are quite different between them, in fact the first is characterized by products which are necessary to the human beings, and so they should not suffer so much the effects of the crisis; while the automobile sector is characterised by products which have an highly elastic demand, and so during recession period the sales should decrease. Moreover these sectors are directly in contact with the customers, and analysing them it has been possible to understand how the crisis impacted on the consumers behaviour and purchasing power. To analyse the two sectors have been taken into consideration some indicators as the sector turnover and the values of the import and export. Considering the two sectors, the worsen results have been registered by the

automobile sector in both countries, due to the dramatic decrease of the sales and of the production, which caused the closure of some plants and the fire of a number of employees; on the contrary the food and drink sector suffered less the crisis, due to the general characteristics of the products sold, and as consequence the total turnover increased and the export level and the number of employees raised as well, only the import level substantially decreased in Italy, highlighting the difficult economic condition of the country.

In chapter 4 are analysed the case studies and the chapter is organised as follow: in the first part are described the hypothesis and the theory behind, while in the second section are analysed the four companies: Parmalat Group and Danone Group, for the food and drink sector, and Fiat Group and PSA Peugeot Citroen, for the automobile sector. In the first part have been described in details the motivations of the choice to analyse that particular firms; moreover the sources of information, from which the case studies have been structured, have been taken into consideration and consequently have been defined the questions that this analysis wants to find an answer to and the hypothesis, which have been identified and which have to be demonstrated with the analysis of the specific companies. Before the analysis of the case studies, a literature review on the strategic decision schools has been drafted and have been described the main analysed reports, which take into consideration the decisions implemented by a group of enterprises in Italy, as the 'Rapporto Competitività 2014', edited by ISTAT, or 'Rapporto MET 2015', edited by Brancati Raffaele. All these reports analyse in a detail way and in a large scale the strategic decisions adopted by the companies, but they don't set a relation between the decisions and the performances, and this is exactly what I wanted to obtain with this work.

In the second part are presented the analysis of the case studies, which are organised as follow: first of all is considered the history of the company in order to rough out the general context, consequently is analysed the general company's strategy of the years under analysis, which is followed by the examination of the total revenues and the units of production. After this part the strategic decisions are taken into consideration, divided them into retrenchment strategies and investment strategies. In the first group are identified the most easy and popular strategies implemented in periods of recession, which commonly are the reduction of costs, employees and plants, inventories and the analysis of the debt; in the second group are instead presented the strategies which aim

to improve and to growth, which are the R&D investments and the acquisitions of other companies or businesses. After having identified for each company these strategic decisions, are reported the results of the Group, by identifying the most important indicators for the profitability, liquidity and margin analysis. In this way the connections between strategies and the performances are defined and at this point it is possible to understand which have been the best set of decisions implemented by the firms, which bought the best results, taking into consideration also the country, the industry structure and the sector.

In *chapter 5*, the last chapter, the conclusions of the work and the results obtained are presented, and are reported the validation of the thesis and of the starting hypothesis. First of all it is possible to conclude that, between those analysed, the sector which recorded the best results is the food and drink one, and in more detail, Danone has been the company, considering the ones studied, which performed better during the recession years. This has been caused by the characteristics of the products as the inelasticity of the demand and the quality features. Moreover the decisions which brought, both in the food and drink sector and in the automobile one, better results, have been the implementation of the investment strategies, because are the ones that could give to the companies a possibility to grow and survive, and these strategies have been the increase of the internationalisation and the increase of the R&D expenses. Concluding a fundamental characteristic, which resulted as vital to survive, has been the solid financial structure and a solid debt composition, due to the credit crunch and the higher interest rate implemented by the banks immediately after the spread of the crisis effects in Europe.

The expected results of this work can be listed as follow:

- 1. Identify the context of the crisis, analysing all the main macro-economic variables and indexes, in order to assess the general conditions of the countries under analysis, during the period of recession.
- 2. Understand not only the conditions of the market, but also the evolution of the situation of the sectors which have been chosen to analyse, in order to set the general context on which these companies work.
- 3. Understand which of the companies under analysis got the best results; why this company got the best results; if it is possible to set correlations between the strategic decisions implemented and the performances. So assess which strategies

proved to be problematic and those that have allowed businesses to respond dynamically, survive and emerge strongly as the economic conditions improved.

## 1. THE CRISIS

#### 1.1 WHAT IS A CRISIS?

Before starting analysing the term crisis, it is useful to understand the theories about crisis of two of the most important economists in the history: Keynes and Marx. There are many other theories of crisis, but with the return of the capital crisis, it was interesting to analyse Marx thoughts and consequently the opposite and distinct Keynes' one. To explain the crisis there are main two schools of thoughts, the Keynesians and the Marxists, derived from the visions of the two economists. The two approaches apply the concept of economic crisis in a different way: the Keynesian approach stays strictly to the economic sphere, describing "boom" and "bust" cycles that balance out; while Marxists approach sees economic crisis as part of the larger crisis of the social order (Mattick, 1974).

Analysing the two aspects more in detail:

First of all, considering Marx thoughts, crises are expected and inevitable in capitalism and he believed in "crisis in accumulation of capital" (Hensman, 2008); and the current economy can be seen as "a system of production not for the human being, but for the profit" (Marx, 1844). Marx divided capital into constant capital (machinery, raw materials...) and variable capital (labour power). The latter, following Marx, was the only creator of surplus value or profit. Under capitalism the normal tendency of any society is the increase of the productivity of labour (amount of means of production a worker can handle) and this growth is reflected in an increase in the organic composition of capital, ratio between the constant and the variable capital. But according to Marx the rate of profit, which is the ratio between the surplus value and the total amount of capital constant plus variables, required to produce it, would have a tendency to fall as the organic composition increases, because surplus value is only created by the living labour. Beyond a certain point, there would be an underproduction of surplus value in relation to the amount of capital required for new investment, and this was what resulted in crises. Consequences can be homeless people, unsold properties, job losses and businesses bankrupt and this are exactly the effects of the actual crisis, which is not only a financial crisis but it became also an economic crisis (Marx, 1844; Grossman, 1922).

Considering instead Keynes, he defined different causes of the crises. He explained the economic crises as crises of insufficient demand. Investment consumption plays a decisive

role in Keynes' economic system. Investment consumption must compensate for insufficient personal consumption. Investment consumption (spending) could be influenced by monetary policy and interest rate policy. However, there is a tendency for marginal efficiency of capital to decline. Marginal efficiency of capital declines due to: oversupply of capital that is oversupply of goods, continuing price increase during the prosperity phase of a business cycle, and an increase of cost of production at the same time (Keynes, 1936; Dragoljub, 2009). Keynes's view was that the decline of marginal efficiency of capital is the main cause of economic crises: "The later stages of the boom are characterized by optimistic expectations as to the future yield of capital-goods sufficiently strong to offset their growing abundance and their rising cost of production and, probably, a rise in the rate of interest also. It is in the nature of organized investment markets, under the influence of purchasers largely ignorant of what they are buying and of speculators who are more concerned with forecasting the next shift of market sentiment than with a reasonable estimate of the future yield of capital-assets, that when disillusion falls upon an over-optimistic and over-bought market, it should fall with sudden and even catastrophic forces" (Keynes, 1964).

Considering the two economists analysed, crisis and economic downturns are connected with the market fluctuations, so it is necessary to define what is the business cycle in the economic world, in order to well understand the current crisis. Market economies are characterised by fluctuations over time. Some analysts detected a pattern in these fluctuations, defining these changes in economic activities as "economic cycle". These fluctuations have been studied by Kondratieff in the mid-1920, and he identified three different phases: expansion (boom), stagnation and depression (Kondratieff, 1925; Mager, 1987). The boom phase occurs when real national output is rising at a rate faster than the trend rate of growth. It is characterised by fast growth of consumption, more job and falling unemployment, high demand for import, increase of the governments tax revenue, increase in the inflationary pressure. After a peak the economy enters in a period of contraction (recession), characterised by negative growth, decline of employment, increase of price pressure, decrease of income and profits. The recession is defined as a fall in the real GDP for two consecutive quarters (Shiskin, 1975). After the recession, the depression takes place, and it is a prolonged and deep recession leading to a significant fall in output and average living standards.

Difficult economic conditions can be seen both analysing the macroeconomic recession effects (decrease of GDP) and considering the environmental shock and hostility, which bring to a decline performances of companies (Kitching, 2009). Some experts consider the crisis as

period of "creative destruction", during which some industries decline, while new ideas, products and technologies emerge and become the new forces for the subsequent growth (Schumpeter, 1913). Recessions modify the economic world through the movement of firms entry and exit, and by motivating incumbent to adapt products and processes in order to increase or maintain business performances.

Analysing the precedent crisis, the one of 1907-1908 and the one of 1929-1930, it is possible to notice some characteristics in common with the actual one. They all occurred after a big boom, characterised by money and credit expansion, rising asset prices and high-running investors' confidence and over optimistic risk taking (Brunnermeier, 2009). Everything started in USA but they spread rapidly, affecting the worldwide economies. In all the three crisis the financial distress brought to an economic recession. The financial crisis of 1907, known as Panic of 1907, was caused by a retraction of market liquidity by a number of New York City banks and a loss of confidence among depositors. It started when the New York Stock Exchange fell almost 50% from its peak previous year, and the difficult situation spread all over the nation when many states and local banks and businesses entered bankruptcy. Many European countries managed to largely avoid financial distress, by building up the credit and increasing the asset prices. This period was the beginning of globalisation, so events in US financial market affected all the other economies; world trade and financial flows decreased and the world economy entered in a sharp but brief recession, followed by a strong recovery (Harvard.edu, "The 1907 crisis in historical perspective"; OECD, 2014).

The crisis of 1929, also called the Great Depression, was a financial crisis too. It has been caused by a collapse of US stock market prices on October 29, followed by a massive failure of banks in USA and Europe and inadequate policy responses, and consequently it turned into a global recession causing a fall of the worldwide GDP by 15% from 1929 to 1932 (European Commission, 2009). The Great Depression had more important and dramatic effects than the current crisis, due to the political context, the degree of decoupling of some regions of the world (Asia, Soviet Union, South America), the strong and persistent decrease of the overall prices level, which caused a sharp deflationary impulse (Kirkwood, 1972).

#### 1.2 WHAT CAUSED THE FINANCIAL CRISIS OF 2008?

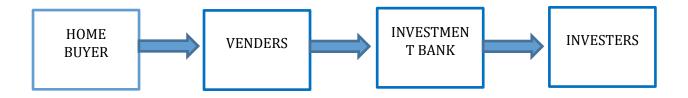
A PERFECT STORM (Courville, 2009; Buiter, 2007). This metaphor has been used to describe the biggest crisis after World War II. No other crisis has been as severe as the one started in 2008, and it had an impact all over the world.

Performing a standard diagnosis of the crisis it is possible to say that everything started in USA with the financial American industry out of control. What has brought to the financial crisis has been the DEREGOLAMENTATION and INNOVATION (new complex financial products), simultaneously with the opening to the financial markets, that since the 1981 started characterising the market. The politics started putting more emphasis on the freedom of the actors, avoiding to impose regulations and so this encouraged all the excess. In the years before the crisis, DERIVATIVE SECURITIES were typical in the market and the phenomena of the SECURITISATION spread ("Inside Job", 2010; The Economist, 2013; Sorkin, 2009).

#### What are these two concepts?

The DERIVATIVE SECURITIES, created by the financial innovation, are safe instruments obtained by removing or diversifying away the inherent risk in the underlying assets. It is a contract between two or more parties and its value depends on the fluctuations of the underlying assets (def. Financial Dictionary). Derivatives can be used for different purposes, as insuring against price movements, increasing exposure to price movements for speculation or getting access to otherwise hard to trade assets. Derivatives are the COLLATERALIZED DEBT OBBLIGATIONS (CDO) and the CREDIT DEFAULT SWAPS (CDS), which will be described later in this section.

The phenomena of the SECURITISATION, developed in the American financial market can be described as following:



When an individual wants to buy a new home, he/she can open a loan. This loan can be sold by the creditors to the investment bank. The investment banks arrange a big number of loans in DERIVATIVES called CDO. The investment banks sell these CDO to the shareholders, and when a borrower pays the debt payment, these money go in the shareholders' pockets. The investment banks usually pay the rating agencies, the most important were MOODY'S, STANDARD AND POOR'S and FITCH, in order to classify the CDO as secure investment, so with a AAA rate (safe as government bond). The creditors were no more interested if the debtors were able to repay the loan and so they started to do high risky investments. Also the investment banks were no more interested because more CDO they sell, and more they earn. No limitations were set. This was caused by the wish to help anyone attain the American dream of home ownership. In this way home loans became more accessible to those with lower credit and savings than lenders. These loans were called SUPRIME MORTGAGES and are loans to people who may have difficulty maintaining the repayment schedule, weak credit history and greater risk for loan default; these loans are characterised by higher interest rates, poor quality collateral and less favourable terms in order to compensate for higher credit risk. For the financial institution this system has many advantages: the securitisation allows to discard the risks connected with these titles, it increases the liquidity of the financing institutions, it decreases the balance sheet and it allows to get around the regulations concerning the solvency ratio. Moreover with the liberalization and the internationalization, all the banks started to enter in these investment activities, which are more profitable than the traditional banking activities. From 2001-2007 we have a period called the BUBBLE; everyone could obtain a loan and the price of the houses redoubled. The SUPRIME mortgages increased from 30 billion of \$ to 600 billion of \$, they were absolutely out of control. The investments banks continuously increased the amount of borrowed money in order to buy more loans and arrange a big number of CDO. The financial leverage of the banks, defined as  $\frac{borrowed\ money}{bank\ money}$ , reached the value 33:1; in this way if the bank has only 3% lower capital,

the insolvency occurs. Leveraging has become attractive also because CDS, which provide insurance against credit default, were clearly under-priced. The DERIVATIVES CREDIT DEFAULT SWAPS, released by the biggest insurance agency in the USA AIG, started to be spread in the financial market. For the investors who have CDO, these CDS were like an insurance policy. The investors who bought a CDS paid to the agencies ¼ of the insurance payment. If the CDO loses value the AIG repaid the investor of his losses, but the differences

between the normal insurances and the CDS is that speculators could buy CDS in order to bet against the CDO that they didn't own (Crotty, 2007; Murphy, 2008).

John Paulson, Goldman Sachs, Morgan Stanley, JP Morgan, Lehman Brothers were very famous and powerful investment banks in the years 2007 and they were the agencies who spread the sales of CDO as secure investment, rated AAA. They started also simultaneously to sell CDO, as secure investments to their clients and bet against the mortgage lending market through the CDS. CDO were pure garbage but they sell them.

Different warnings about the dangers of this situation have been explain by different studies of Rajan Raghuram in his essay "Has financial development made the world riskier?", Nouriel Roubini with "Crisis economics: a crash course in the future of finance", Charles Morris and many other; but none has been listened.

In 2008 the repossession of goods increased and the SECURITISATION imploded. American households could no longer repay the banks of the money they had borrowed to buy their homes. The interest rate of the loans went up, which increased their mortgage repayments, throwing many household in default. As a result there was a rise in the number of homes put up for sale, leading to collapse in property prices, which made it impossible for banks to get back their money. The bankers could no more sell their loans to the investment banks and loans started to lose value and the failures increased. The market of CDO collapsed. The 16 March 2007 Bear Steans, an investment bank went bankrupt, the 7 September 2008 Fannie Mae and Freddie Mac went under, but the straw that broke the camel has been the collapse of Lehman Brothers the 15 September 2008, the Government didn't intervene and stood back, allowing the bankruptcy of the sprawling global bank. This multiplied the panic in the markets. Suddenly nobody trusted anybody, so nobody would lend (Taylor, 2009).

The big problem is that not only the American banks were in trouble but also all the other worldwide banks were interested. A big number of European banks had invested heavily in the American mortgage market and in the 2008 have been hit hard. In 2008 the European banks Northern Rock and Landesbank Sachsen failed.

The banks started to limited their lending, but, although they reduced the amount of new loans they made, the public still had to keep up repayments on the debts they already had. When money is used to repay loans, that money is destroyed and disappears from the economy. So when people repay loans faster than banks are making loans, the economy slows

down and prices decrease. As a result wages and prices fall down but people's debts don't change in value. In 2009 the period of recession was officially started.

A big and important consequence has been the credit crunch, which characterised the markets immediately after the development of the crisis, and this affected the whole economy. Companies and consumers saw a decrease of their purchasing power, due to the lower possibility to get a loan and this subsequently caused a decrease of the purchase of durable goods. Later the effects of this credit crunch are described in more details, taking into consideration both the analysed sectors and the companies, which have been taken into consideration.

#### 1.3 AN OVERVIEW OF THE EFFECTS OF THE CRISIS

#### THE PROBLEMS IN EUROPE

From the studies and the publications of the European Commission (Economic and Financial Affair, European Commission) it is possible to understand that a big problem in Europe was that a huge number of governments have been borrowing heavily for some years to finance their budgets, accumulating huge debts in the process. One reason why governments became so much dependent on debt was the decrease of competitiveness of their economies and the fails to keep up with economic reforms. In some countries governments allowed property bubbles and other unhealthy economics unbalance to develop (Fumagalli, 2009). Some other governments had ignored the rules designed to make the euro work and had not done more to coordinate their economic policies. This brought to a vicious cycle: financial instability stifle economic growth, which in turn lowered tax revenues and increased governments' debt. Higher debts that raised the cost of borrowing, feeding financial instability.

This crisis showed the weaknesses of Europe (Economic and Financial Affair, 2010, "Why did the crisis spread"):

- → The construction of the economic union was only partial. It was only characterised by a monetary union, without a common policy at fiscal, employment and productive level.
- → The focus has been too much on monitoring the deficits of the countries, while the level of government debt was not considered.
- → There has been a lack of surveillance of competitiveness and macroeconomics imbalances, the surveillance of EU economies paid low attention to unsustainable development of competitiveness and credit growth leading to accumulated sector debt, weakened financial institution and inflated housing market.
- → Tough decisions on worrying macroeconomic developments were postponed.
- → When crisis started there was no mechanism able to support the euro area countries that suddenly found themselves in financial difficulties.

The EU was requested to step in, creating a crisis resolution mechanism and a financial backstops; but nothing at community level has been done immediately after the crisis.

#### 1.3.1 THE EFFECTS OF THE CRISIS IN EU

In Europe the crisis developed during the years since 2007 (European Commission, "10 answers to the economic crisis in Europe").

2007 Subprime crisis 2008 Financial crisis 2009 Economic debt crisis 2011-12 European crisis

At first, it was thought that reassuring the financial market and injecting large sums into the economy would be enough to overcome the FINANCIAL CRISIS of 2008. But it wasn't. In 2009 economic indicators collapsed, industry received fewer and fewer orders and the unemployment rate rose (ECONOMIC CRISIS). Countries got into more and more debt. Governments intervened to save their troubled banks but their public debt soared as a result. To counter this, they cut public expenditure as receipts were falling, leading to a SOVEREIGN DEBT CRISIS. Interests rate for the government bonds soon became unsustainable. This loss of confidence brought the banks to lend less and a liquidity crisis occurred. When the public noticed that the banks had stopped lending, they consumed less. For fear of selling less, businesses produced fewer goods and made some of their workforce redundant. As a result unemployment went up and the financial crisis started to affect the real economy. In 2009 the EU economy suffered the worst recession after its creation, after a brief improvement in 2011 it went to a other recession again in 2012, amplified by the restrictive policies put in place by the governments in order to decrease their public debt (Elliott, 2011).

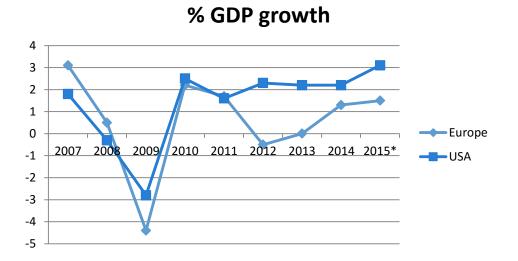
The financial crisis strongly affected the EU economy from the autumn of 2008 onward. There are essential three main area affected (European Economy, 2009):

- 1. Financial system: initially the losses mostly originated in the US, but the write-downs of banks have been considerately larger in Europe than in US. Moreover in the process of deleveraging, banks drastically reduced their exposure to emerging markets, closing credit lines. Hence the crisis affected further those countries, especially the emerging ones, by restraining funding (ECB Europa, Monthly bulletin 2011).
- 2. Effects on demand: households suffered declines in their wealth, in the wake of assets prices, especially stocks and housing, savings increased and demand for consumer

- durables decreased. This was amplified by the inventory cycle, with involuntary stock building prompting further production cuts in manufacturing.
- 3. Global trade: world trade collapsed in the final quarter of 2008, as business investment and demand for consumers durables has decreased significantly. The trade breakdown was deeper than might be expected, probably due to the composition of the demand shock, mostly affecting trade intensive capital goods and consumer durables, the unavailability of trade finance and a faster impact of activity on trade as a result of globalisation.

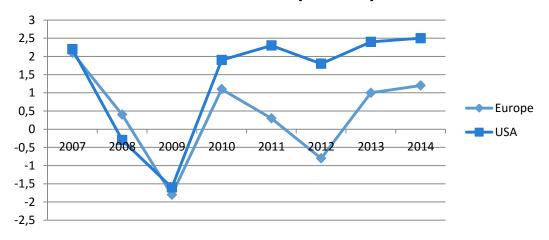
The most important indicators to analyse the conditions of the EU area are the following; in order to make a complete analysis, US data are introduced, in this way it is easier to understand the European situation:

→ Economic growth (GDP): the years of the crisis are characterized by lower economic growth and a decrease in the GDP, which represents the economic performance of a country, evaluate as the gross values added of all residents and institutional units engaged in production. As it is possible to see from the graph below, the GDP shrunk in the year 2009, due to the worldwide spread of the financial crisis. In Europe in the years 2010 and 2011 a slight improvement seemed occurring, but again in 2012 the growth of the GDP suffered a loss, and it started to increase again from the year 2013. Comparing Europe and USA, it is possible to notice that USA get better results after the peak of 2009, reaching an higher growth than Europe, which instead registered a second recession in the year 2012 due to the restrictive policies put in place by the governments.



→ Private consumption: immediate consequence of the general instability of all the European countries has been the rapid decrease of the consumption of the families with two peaks, one in 2009 and the other in 2012. The causes are the increase of the unemployed people and the decrease of the accessible loans allowed by the banks. Comparing Europe and USA, the latest obtained better results, and after the peak of the year 2009 they registered a quite stable positive trend; on the contrary Europe recorded a second dramatic peak in the year 2012 due to the negative economic results.

## Final consumption expenditure households (% GDP)



GRAPHIC 2- FINAL CONSUMPTION EXPENDITURE HOUSEHOLDS EUROPE AND USA

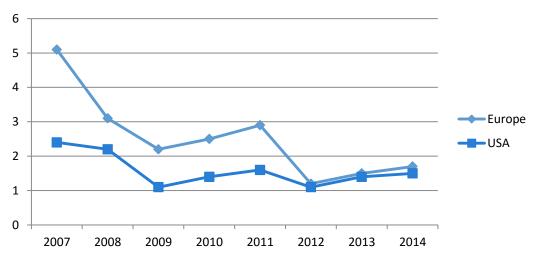
SOURCES: EUROSTAT, BEA. GOUV

→ Inflows and outflows FDI: a FDI is an important type of investment, it consists in making capital available from one country for carrying out an economic activity in another country, with a view to exercising a form of control, such as the ability to influence business decisions. Forms of FDI are the acquisition or creation of a company, portfolio investments or any other assets (OECD Library).

As we can see from the data below, the amount of inward FDI, so the one entering EU, are decreasing substantially from 2007 to 2014. A decrease of the FDI means a decrease of jobs creations, resource allocation optimisation and a decrease of trade.

Comparing Europe and USA, Europe recorded a more dramatic decrease of the inward FDI than US, which instead, after of the peak of 2009, are quite stable.



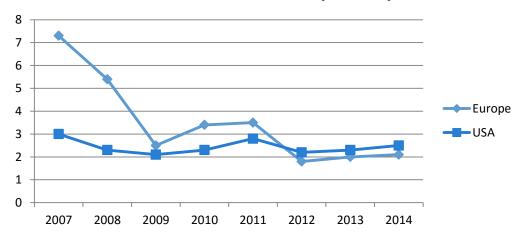


GRAPHIC 3- INWARD FDI FLOWS EUROPE AND USA

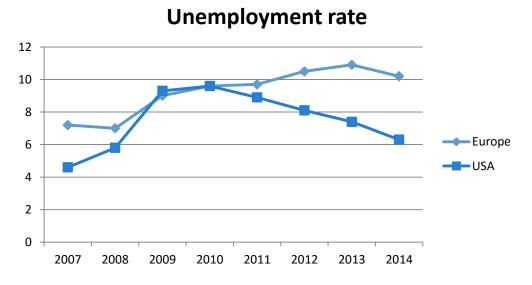
SOURCES: UNCITAD STAT, OECD

As for the inward, also the outward FDI have been decreasing since the beginning of the crisis. A decrease of outward FDI means a negative contribution to the competitiveness of European enterprises and it has been caused by the slowdown of the economy of all the Member States. Comparing Europe to USA, the latest has a quite stable level of FDI outward during the years under analysis.

## **Outward FDI flow (%GDP)**



→ <u>Unemployment rate</u>: dramatic consequence for all the European citizens has been the huge increase of the unemployment rate, caused by the loss of productivity and production activities, of which all the European countries suffered. From 2008 this trend seems not to have a reversal of tendency. On the contrary analysing the US data it is possible to notice a decrease of the unemployment rate, after a peak in the year 2011, this is possible thanks to the better economic situation of the country.

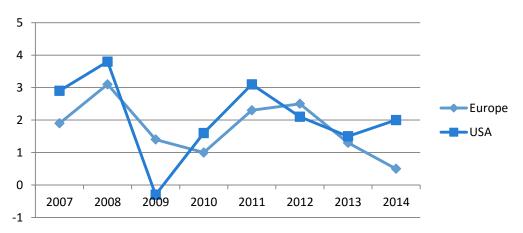


GRAPHIC 5- UNEMPLOYMENT RATE EUROPE AND USA

SOURCE: EUROSTAT

→ Inflation rate: inflation means an increase in the general price level in an economy, and inflection reflects a reduction of the consumers' purchasing power (Economy Dictionary). As it is possible to notice from the graph below, crisis made the inflation rate fluctuates, after a peak in the year 2008, the prices started to decreased until the year 2010, moment in which they started to grow again, registering a second peak in the year 2012 and then go to decrease again. During deflation period, as the one of the last years (2013, 2014), the positive effect is the increase of the purchasing power, but on the other hand this brings to a decrease of the margins, decrease of the salaries, which causes a decrease in the demand and so a reduction in the production level which bring to a decrease of the revenues. Now Europe set a target to maintain the inflation around the 2-3% (European Commission data).

#### Inflation rate

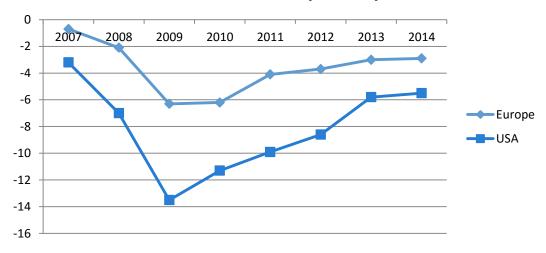


GRAPHIC 6- INFLATION RATE EUROPE AND USA

SOURCE: EUROSTAT, WORLDBANK

→ Public deficit (% GDP): after the development of the financial crisis, countries started to increase their government borrowing for their national debt shortfall and to save the financing institutions and this bought to an increase of the debt (Aridas, 2013). The collapse of revenues and the fiscal stimulus, carried out in response to the crisis, increase the level of the debt from 2007 to 2009, as it is possible to analyse from the data in the graph below. From the year 2010 a decrease of the public deficit is occurring and it is a consequence of the Stability and Growth Pact, defined by the Member States, for which all the European countries have to reach the 3% of public deficit as % of GDP.

## **Public deficit (%GDP)**



GRAPHIC 7- PUBLIC DEFICIT EUROPE AND USA

SOURCE: EUROSTAT, WORLDBANK

In the table below are reported the values of the **%GROWTH GDP** of all the Member States of UE.

	2007	2008	2009	2010	2011	2012
Austria	3.6	1.5	-3.8	1.9	3.1	0.9
Belgium	3.0	1.0	-2.6	2.5	1.6	0.1
Bulgaria	6.9	5.8	-5.0	0.7	2.0	0.5
Cyprus	5.1	3.6	-1.7	1.3	0.4	-2.4
Czech	5.5	2.7	-4.8	2.3	2.0	-0.8
Republic						
Denmark	0.8	-0.7	-5.1	1.6	1.2	-0.7
Estonia	7.9	-5.3	-14.7	2.5	8.3	4.7
Finland	5.2	0.7	-8.3	3.0	2.6	-1.5
France	2.4	0.2	-2.9	2.0	2.1	0.3
Germany	3.3	1.1	-5.6	4.1	3.6	0.4
Greece	3.5	-0.4	-4.4	-5.4	-8.9	-6.6
Hungary	0.5	0.9	-6.6	0.8	1.8	-1.5
Ireland	4.9	-2.6	-6.4	-0.3	2.8	-0.3
Italy	1.5	-1.0	-5.5	1.7	0.6	-2.3
Latvia	10.0	-4.2	-18	-0.3	5.3	5.0
Lithuania	9.8	2.9	-14.7	1.3	6.0	3.7
Luxembourg	6.5	0.5	-5.3	5.1	2.6	-0.2
Malta	4.3	3.9	-2.8	4.3	1.4	1.1
Netherlands	4.2	2.1	-3.3	1.1	1.7	-1.6
Poland	7.2	3.9	2.6	3.7	4.8	1.8

Portugal	2.5	0.2	-3.0	1.9	-1.8	-3.3
Romania	6.3	7.9	-6.8	-0.9	2.3	0.4
Slovenia	6.9	3.3	-7.8	1.2	0.6	-2.6
Slovakia	10.7	5.4	-5.3	4.8	2.7	1.6
Spain	3.8	1.1	-3.6	0.0	-0.6	-2.1
Sweden	3.4	-0.6	-5.2	6.0	2.7	-0.3
United	2.6	-0.3	-4.3	1.9	1.6	0.7
kingdom						
AVERAGE	4.29	2.8	-3.8	2.04	2.17	1.14

TABLE 1- %GROWTH GDP EUROPEAN COUNTRIES

SOURCES: DATA WORLDBANK

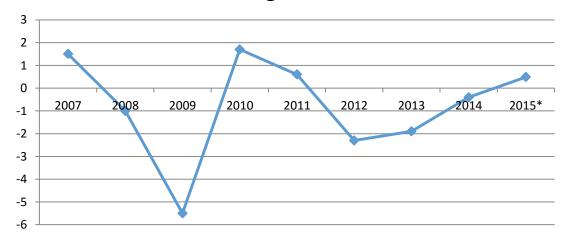
As it is possible to notice from the data crisis affected all the Member States, even with different intensity. The extent to which the financial crisis has been affecting the individual State of the EU strongly depends on their initial conditions and the associated vulnerabilities. The three categories, on which the effects of the crisis depend on, are (European Economy, 2009):

- The extent to which housing markets had been overvalued and construction industries oversized. House price increases have been observed in the past fifteen years in the United Kingdom, France, Ireland, Spain and the Baltic countries, and in some cases this has been associated with an increase in the construction activity. The greater the dependency of the economy on housing activity, including the dependency on wealth effects of house price increase on consumption, the greater the sensitivity of domestic demand to the financial market stock. Baltic countries have been particularly hard hit cause this reason.
- The export dependency of the policy and the current account position. Countries
  where export demand has been strong and/or which have registered current account
  surpluses are more exposed to the sharp contraction (Germany, Netherlands, Austria).
- The size of the financial sector and/or its exposure to risky assets. Countries which
  have large financial centres, as United Kingdom, Ireland and Luxembourg are exposed
  to financial turbulence. Also the countries which are the home base of cross-border
  banking activities in emerging economies in Central and Eastern Europe are likely to
  be more strongly affected. The exposure for European banks to emerging market risk
  is concentrated in Austria, Belgium and Sweden.

#### 1.3.2 THE EFFECTS OF THE CRISIS IN ITALY

Italy suffered a lot the crisis of 2008. The immediate consequences can be easily noticed in the rapid decrease of the GDP in the years under analysis, reaching the lowest value (-5,5%) in the year 2009; it has been one of the biggest fall in the EU area, some points over the average (-3,8). After that year a recovery felt like was occurring but again in the years 2011 and 2012 the growth of the GDP suffered caused by the adverse situation of the financial market, the low international demand and the restrictive policies put in place by the government. In the year 2013 and 2014 a growth occurred but it is very slow. The prevision for the year 2015 is a +0,49 and it will be the first positive result after 5 years.





GRAPHIC 8- ITALIAN GDP GROWTH %

SOURCE: EUROSTAT

Analysing more in detail the GDP components, expressed in % growth, we can notice where this crisis is weighted mostly.

	2007	2008	2009	2010	2011	2012	2013
GDP	1,5	-1	<mark>-5,5</mark>	1,7	0,6	<mark>-2,3</mark>	-1,9
Final consumption expenditure general government	1	0,6	0,8	-0,4	-1,3	-2,6	-0,8

Household' consumption expenditure	1,2	-1,1	<del>-1,6</del>	1,2	0	<mark>-4</mark>	-2,6
GFCF	1,6	-3,1	<del>-</del> 9,9	-0,5	-1,9	<del>-7,4</del>	-4,7
Imports	5,4	-3,7	<del>-12,9</del>	12,4	0,5	<mark>-8</mark>	-2,8
Export	6,2	-3,1	-18,1	11,8	5,2	2	0,1

TABLE 2- MAIN COMPONENTS ITALIAN GDP

SOURCE: WORLDBANK, EUROSTAT

First of all if we consider the trade with the rest of the world, both import and export shrunk in the first year of the crisis caused by the slowdown of the worldwide economy. In the consecutive years it is possible to highlight an improvement in the export higher than the import, which suffered also in 2012 with, again, a negative growth. The positive growth of the export in the last years positively influenced the economic growth.

The households' consumption expenditure registered negative values in the year 2008, 2009 and 2012. The Italian families reduced their expenditures especially for the physical and durable goods, less for the services. This reduction of consumption can be explained by the reduction of the available income of the families. As far as concern the public expenditure it is possible to notice an increase in the year 2009 and a decrease in the year 2010 and in the year 2012, when the economy get worse again.

The GFCF which is the Gross Fixed Capital Formation, which represents the value of acquisition of new or existing fixed assets by the business sector, governments and households less disposals of fixed assets (Eurostat definition), registered negative values since 2008 and after a slow recovery in 2010, it shrunk again. This negative level of investment can be explained by the high uncertainty and the insufficient liquidity that characterized the market.

It is possible to group the main effects of the recession in 8 aspects (ISTAT (2012), 'L'evoluzione dell'economia Italiana, aspetti macroeconomici'):

• <u>Economic stagnation</u>: Italy lost about 8,5% of GDP between 2007 to 2013 cumulatively, it's the worst recession in the recent history. Italy finally went out the recession in the fourth trimester of 2013 with a growth of 0,1%, but the Italian economy continues to be one of the weakest in the Euro group.

• <u>Unemployment (% increase)</u>: analysing the Italian unemployment rate, the data are quite alarming. The crisis is showing its effects especially in the last years, with a fast increase of the people without a job. The young people, between 15 and 24 years, are the one most damaged, between the 2008 and 2011 they lost the 24% of their job (ISTAT); and this trend seems not to stop.

	2007	2008	2009	2010	2011	2012	2013	2014
Unemployment	6,1	6,7	7,8	8,4	8,4	10,7	12,1	12,7
rate								

TABLE 3- ITALIAN UNEMPLOYMENT RATE

SOURCE: EUROSTAT

• Bank long term interest rate: as it is possible to see from the data in the table below, the interest rate increased in the years 2011 and 2012, after a slow decrease in the previous two years. This means that the cost to borrow money increased. The profitability was considered very low and the income decreased, both these two conditions negatively affected the cost of the loans both for the Italian families and the companies. The problem has been that limiting the financing activities had consequences on the economic growth (Grion, 2011).

	2007	2008	2009	2010	2011	2012	2013	2014
Bank long	4,49	4,68	4,31	4,04	5,42	5,49	4,31	2,89
term interest								
rate								

TABLE 4- ITALIAN BANK LONG TERM INTEREST RATE

SOURCE: EUROSTAT

• Gross public debt (%GDP): the amount of public debt in Italy has been always a big problem, as it is possible to see from the data. The high public debt is caused especially by the slow growth and the low inflation (ISTAT). The increase of this value can raise the vulnerability of the Italian economy and given its large size it is considered a big problem for the rest of the world. The high level of public debt represented an obstacle for Italy, immediately after the crisis, because as other countries did, it could not implement expansive policies in order to re-launch the economy because it had to keep under control the public accounts (European Commission).

	2007	2008	2009	2010	2011	2012	2013	2014
Gross public debt	103,3	106,1	116,4	119,3	120,7	127	128,5	132

TABLE 5-ITALIAN GROSS PUBLIC DEBT

SOURCE: DIPARTIMENTO DEL TESORO

• Total general government expenses (%GDP): as it is possible to see from data in the table below, the public expenses weighted a lot on the total GDP, more or less the half. As many articles say, Italy spent its money in the wrong way; money have been especially spent for the public administration and the unproductive activities, but in order to increase the productivity and the economic growth it was necessary to invest that money in the companies in order to make them more competitive.

	2007	2008	2009	2010	2011	2012	2013	2014
Total	46,8	47,8	51,1	49,9	49,1	50,8	50,9	51,1
general								
government								
expense								

TABLE 6- ITALIAN TOTAL GENERAL GOVERNMENT EXPENSE

SOURCE: EUROSTAT

• Taxation level (%GDP): the taxation level in Italy is one of the highest in Europe. The level of the taxes mostly weights on the consumers and on the industries, and contributes to the decrease of the GDP. In the year 2014 it has been registered the highest level: 44,6 % of the GDP are taxes, and this is higher than the European average which in 2014 was 41,7. This increase has been a way to try to face the boost of the public deficit, which was characterising the country.

	2007	2008	2009	2010	2011	2012	2013	2014
Taxation level	41,6	41,4	42	41,7	41,7	44	44,3	44,6

TABLE 7- ITALIAN TAXATION LEVEL

SOURCE: BANCA ITALIA

• <u>Deficit of the current account (%GDP)</u>: the current account represents a level of the international competitiveness of the country and the main categories are goods,

services, income and current transfers, it is evaluated as the sum of balance of trade (export-imports of goods and services), net factor income (interests and dividends), and net transfer payment (foreign aid). Analysing the data it is possible to notice that the Italian current account registered always a deficit, except in the year 2013, which means that Italy recorded higher imports than exports, a lower saving rates and higher personal consumption rates as a percentage of disposable income. The most negative value has been registered in the year 2010 with a -3,3, this has been probably caused by the dramatic economic situation of the countries, which decreased their demand of Italian products. In the year 2013 it has been recorded a positive value, this can be due to the increase of the export, thanks to the economic recovery of the countries, and a decrease in the imports caused by the dramatic situation of the Italian market.

	2007	2008	2009	2010	2011	2012	2013
Deficit of the current account	-2,3	-2,7	-1,8	-3,3	-2,9	-0,3	1

TABLE 8- ITALIAN DEFICIT OF THE CURRENT ACCOUNT

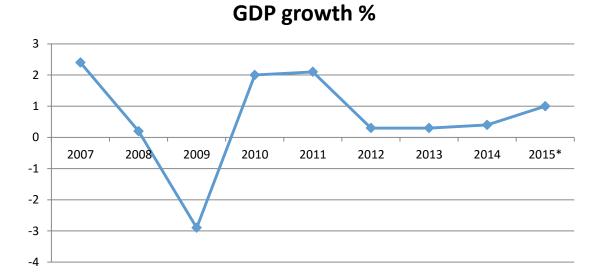
SOURCE: OECD

• External public debt: this index synthetizes how much a country is get into debt. Higher is the debt, higher is the amount of money to give back to the other countries and this weakens the country. The Italian external debt raised from 47% of the GDP to 58%, from 2007 to 2013. It is a data not so high for the country, considering the other Member States.

#### 1.3.3 THE EFFECTS OF THE CRISIS IN FRANCE

As all the other European countries France suffered the crisis since 2008; the financial crisis affected the GDP and its components; in 2008 and 2009 it is possible to notice from the graph below that the percentage growth of the GDP decreased, reaching its lowest value (-2,9%) in the first year of recession. In the following two years seems that a growth was occurring but another decrease of the growth of the GDP in the year 2012 has been registered, after that year it is recording a slow but positive trend. On the contrary of Italy, France registered a better result in the year 2011 thanks to delay of the put into practise of the austerity choices, with the decrease of the public expenses, which caused a worsening of the economic and a

stagnation of the market from the year 2012 (Oxfam France case study, 2013). This strategy was adopted in order to get the target of the European Commission of 3% of the public deficit by 2013; but after the bad results of the countries of the year 2012, the Commission decided to lighten this target and to delay it of two years, this should have given the possibility to the governments to soften the austerity program and grow (European Commission – Transposition).



GRAPHIC 9- FRENCH GDP GROWTH %

SOURCE: EUROSTAT

We can analyse more in the debt the French GDP using these data below:

	2007	2008	2009	2010	2011	2012	2013
GDP	2,4	0,2	<del>-2,9</del>	2,0	2,1	0,3	0,3
Final	1,8	1,1	<b>2,4</b>	1,3	1	1,7	2
consumption							
expenditure							
general							
government							
Household'	2,5	0,4	0,2	1,8	0,5	-0,4	0,2
consumption							
expediture							
GFCF	5,5	0,9	<mark>-9,1</mark>	2,1	2,1	0,3	-1
Imports	5,7	1,3	<del>-9,4</del>	8,9	6,3	-1,3	1,7
Export	2,8	0,4	-11,3	9,0	6,9	1,1	2,2

TABLE 9- MAIN COMPONENTS FRENCH GDP

SOURCE: INSEE NATIONAL ACCOUNT, EUROSTAT

As we can easily notice all the indicators in the year 2009 rapidly decreased. First of all, households changed their consumption expenditure because house prices fluctuated. Moreover the collapse of the companies increased the unemployment rate and consequently consumers decreased their expenditure. On the contrary it is possible to see that the consumption expenditure of general government obtained an increase in the starting year of the crisis, and it had a positive growth in almost all the years under analysis. It demonstrates the effort of the county to react to the crisis.

We can analyse that also the GFCF which is the Gross Fixed Capital Formation, which represents the value of acquisition of new or existing fixed assets by the business sector, governments and households less disposals of fixed assets, decreased considerably from 2007 to 2009. A slow recovery occurred in 2010 and 2011 but again in 2012 and 2013 the value decreased.

The last components are import and export, the first suffered a dramatic decreased due to the collapse of consumption expenditure of both households and industries, also exports shrunk in 2009 because of the economic and financial crisis which damaged the world economy.

We can summarise the effects of the economic crisis in 8 different aspects (Gouiffès, 2014):

- <u>Economic stagnation</u>: France reached only +1,6% of total growth from 2008 to today (INSEE). It's a very low and weak value and the key point is the decrease of the GDP per capita that from 2008 affected the county.
- <u>Unemployment rate (%)</u>: in March 2015 the number of people without a job grew up, reaching the value of 3.509.800, an increase of 40% in 8 years. The unemployment rate moved from 7,4% in 2009 to 10,3% in 2014 and this negative trend characterised all the other years.

	2007	2008	2009	2010	2011	2012	2013	2014
Unemployment rate	7,9	7,4	9,1	9,3	9,2	9,8	10,3	10,3

TABLE 10- FRENCH UNEMPLOYMENT RATE

SOURCE: INSEE NATIONAL ACCOUNT, EUROSTAT

• Long term bank interest rate (%): analysing the long term interest rate (10 years maturity), so the cost to borrow money from bank, it is possible to underline that from

2007 this cost decreased, an opposite trend compare to the Italian one. It has been positive for France because a decrease in the cost of the debt allowed the increase of the economic growth, and an increase in the level of investments of companies.

	2007	2008	2009	2010	2011	2012	2013	2014
Long term bank interest	4,3	4,23	3,65	3,12	3,32	2,54	2,01	1,66
rate								

TABLE 11- FRENCH LONG TERM BANK INTEREST RATE

SOURCE: EUROPEAN CENTRAL BANK

• Gross public debt (% GDP): during 2008 the French public debt was 1,294 million €, which coincided to 65,2% of GDP. At the end of 2014 the public debt grew up of 700 billion euro (+57%), reaching 2000 billion €, not far of 95,3% of GDP.

	2007	2008	2009	2010	2011	2012	2013	2014
Gross public debt	63,9	65,2	77,6	83,5	84,7	88,7	91,8	95,2

TABLE 12- FRENCH GROSS PUBLIC DEBT

SOURCE: INSEE NATIONAL ACCOUNT

• Total general government expenses (% GDP): the public expenditures increased from 2007 to 2013 of 200 billion per year reaching 1300 billion €. The rate moved from 53,9% to 57,1% (% of GDP) in 2013 (Eurostat). The public expenses couldn't be completely repaid by the taxes and so the debt level increased as well. In order to get the target of the public deficit defined by the European Commission, France from 2010, but in a more important way from 2013, started to cut the public expenses and as it is possible to notice from the table there is a reduction from 2013 to 2014 of -0,7% of the yearly public expenses.

	2007	2008	2009	2010	2011	2012	2013	2014
General	52,2	53	56,8	56,4	55,9	56,8	57,1	56,7
government								
expenses								

TABLE 13- FRENCH TOTAL GENERAL GOVERNMENT EXPENSE

SOURCE: EUROSTAT

• <u>Taxation level</u>: the taxation rate in France is one of the highest in all the Europe, it reached 45,8% of GDP at the end of 2014 and increased considerably in the last years, it grew up of 3 point of GDP from 2009 to 2012, which corresponds to 60 billion € of supplementary withdrawal, as we can see from the data below. France increased especially the VAT tax and the income tax, and these choices have been necessary in order to react to the public deficit, which continuously increased in the latest years (Gouvernment.fr).

Taxation	43,5	43,2	42,5	42,9	44,1	45,3	45,8	45,8
Taxation								
	2007	2008	2009	2010	2011	2012	2013	2014

TABLE 14- FRENCH TAXATION LEVEL

SOURCE: EUROSTAT

• Deficit of the current account: as we can see from the data in the table the current account has been always in deficit since 2007. France needed external capital in order to finance its economy and its life level, both for an internal over consumption and for an internal damaged competitiveness. Imports and the capital, which entered in France, have always been higher than exports and capital directed to the foreign markets, this was caused by the weak economic situation of the country.

	2007	2008	2009	2010	2011	2012	2013	2014
Deficit of the current account	-1,0	-1,7	-1,3	-1,3	-1,7	-2,1	-1,3	-1,4

TABLE 15- FRENCH DEFICIT OF THE CURRENT ACCOUNT

SOURCE: INSEE NATIONAL ACCOUNT, EUROSTAT

External public debt: the external French debt increased considerably in the last years
+500 billion €; it's the highest boost between all the European countries, a big role has
been played by the external public debt, which was more or less 400 billion and which
represented the major exported French product.

### 1.4 THE GOVERNMENT PUBLIC POLICIES

#### 1.4.1 EUROPEAN PUBLIC POLICIES

Europe and each of the Member States, since the 2009, have been working in order to react both to the financial and the debt crisis, how? (Economic and Financial Affairs, "EU response to the crisis")

FINANCIAL CRISIS: To prevent a complete collapse of the banking system, European Governments rescued their banks with a huge support of 4.5 trillion euros (37% of EU's annual GDP) from 2008 to 2011. This money has been used under the four main headings debt guarantees, recapitalisation, liquidity support, and treatment of impaired assets. Deposit guarantees were raised. Central banks cut policy interest rates to unprecedented lows and gave financial institutions access to virtually unlimited lender-of-last-resort facilities.

This financial crisis has demonstrated that the EU's banking system is vulnerable to shock. In response the EU and it Members State have decided to increase the financial sector supervision, setting three supervisory bodies, to help coordinate the work of national regulators and ensure that EU level rules are applied consistently (Ec.europa.eu, Financial supervision). The three bodies are:

- 1. The European Banking Authority (EBA), which deals with bank supervision, including the supervision of the recapitalisation of banks;
- 2. The European Securities and Markets Authority (ESMA), which deals with the supervision of capital markets and carries out direct supervision with regard to credit rating agencies and trade repositories,
- 3. The European Insurance and Occupational Pensions Authority (EIOPA), which deals with insurance supervision.

ECONOMIC CRISIS: In November 2008 EU launched an effective framework, the European Economic Recovery Plan, for addressing economic downtown, combining active fiscal stimulus with structural reforms (Tirole, 2012). The packages of the fiscal stimulus have been sized in order that Member States, whose negative output gap was larger, were also those who pursued the strongest fiscal stimulus. The plan aimed to restore consumer and business confidence, restart lending and stimulate investment in the EU's economies, create jobs and help the unemployed back into work. The plan included: reflation, incentives to investment,

lower rates, tax rebates and social measures. The structural policies aimed to raise growth and jobs potential of the economy in the longer run, support aggregate demand, employment and household income in the short run during the crisis and improving the adjustment capacity to enable a faster recovery when conditions improve (Ec.Europa.eu).

### The main area of intervention are:

- → LABOUR MARKET POLICIES: in order to face the increasing unemployment rate these set of measures and design features have been considered appropriate in order to respond to this problem: financial support to temporary flexible working-time arrangements in line with production needs to raise labour flexibility; reinforcing activation and providing adequate income support for those most affected by the economic slowdown, making full use of social protection benefits; investing in retraining and skills upgrading particularly for workers on short time and in sectors that are in decline; mitigating the direct impact of the financial crisis on individuals through specific measures to prevent over-indebtedness and maintain access to financial services; ensuring the free movement of workers within the single market; supporting measures such as lowering nonwage costs for low-skilled worker; support to tackle youth unemployment and early school leavers.
- → BUSINESS SUPPORT AND INVESTMENT: The financial crisis affected companies and specific sectors through a severe contraction of credit and loans accompanied by a tightening of credit standards. The EERP (European Economic Recovery Plan) recognised the necessity to support businesses, who were facing financial constraints, providing specific credit services. It was necessary to support those sectors where demand has been disproportionally affected by the crisis and could cause important dislocations. The set out guiding principles were: maintaining openness within the internal market, continuing to remove barriers and avoid creating new ones; ensuring non-discrimination by treating goods and services from other Member States in accordance with EU rules and Treaty principles; targeting interventions towards longer-term policy goals: facilitating structural change, enhancing competitiveness in the long term and addressing key challenges such as building a low carbon economy; sharing information and best practice; keeping the single market open to trading partners and respect international commitments.

**DEBT CRISIS**: from the late 2009 and the beginning of 2010, some euro counties were beginning to have problems financing their debts. The crisis caused an increase of the costs for the normal governments borrowing operations. In order to react to this situation EU countries put in place the "firewall" confidence building measures to help to finance the debt of countries facing temporary difficulties in borrowing money. In the same time EU decided to define both temporary assistance measures to face immediately the problems of the crisis, and long term measures to create permanent support facilities (European Commission 'Respond to debt crisis').

The immediate responses given have been the setup of two temporary funds, the European Financial Stabilisation Mechanism (EFSM) and the European Financial Stability Facility (EFSF) with a total lending capacity of 500 billion €. The creation of these two bodies had the objective to show solidarity between the Euro area members. In the autumn of 2012 a new permanent financial backstop was created: the European Stability Mechanism (ESM). It was an integral part of the EU' strategy to ensure financial stability in the EURO area. Its lending capacity was 500 billion € and it complemented the reinforced surveillance by giving the possibility to offer conditional financial assistance to euro area countries when needed (esm.europe.eu; corporateeurope.org).

To get positive results in the long-term the EU introduced new stronger rules to keep a check on the public debt and deficits to be sure that countries didn't spend beyond their possibilities. Countries also defined that the structural deficit could no more overcome the 0,5% of the GDP. In order to have a thriving economy in the euro area has been necessary to ensure sound public finance, competitiveness and promote growth. In order to monitor the commitment to sound fiscal policies the framework named Stability and Growth Pact has been reinforced; after that all the countries had to submit their budget plans at the Commission and it has to be approved by all the Member States. In order to get this result, countries started to define austerity plan, cutting their public expenses; all the Member States, from different period, defined this strategy with the object of rebalancing the external counts and attract foreign investments (European Commission- Press release 2015).

To ensure the increase of the competitiveness and growth:

→ On the macroeconomic sides the EU introduced a new framework for the surveillance and timely correction of macroeconomic imbalances (i.e. labour costs, house prices,

- unemployment). If one country shows potentially worrying trends, it's analysed in depth and if an unbalanced is found is asked to take actions to prevent the problems.
- → On the growth side EU defined the Europe 2020 targets with the aim of fostering a smart, sustainable and inclusive economy. The areas interested were: employment, innovation, education, social inclusion and climate/energy policy.
- → On economic reforms side, the European Semester has been established since 2011; it's an annual cycle of policy coordination at EU level during which EU countries have the chance to review each other's economic and fiscal policies before they are implemented. At the end of the cycle, the EU addresses specific reform recommendations to each country (ec.Europa.eu; Dipartimento del Tesoro).

#### 1.4.2 ITALIAN PUBLIC POLICIES

It is known to everyone that Italy reacted and defined actions to answer to the imminent crisis with a delay. During November 2008 the "Anti-crisis decree" was approved, it was a package of measures of 6,4 billion € with the object to encourage the economic growth. In this set of actions there were measures directed to the workers, as the strengthening of the instruments which protect the income in case of unemployment or the de-taxation of the productive wages for the incomes lower 35.000 (Camera dei Deputati- Documentazione e ricerche, 2013). Although these positive actions have been implemented, the final output was a balance because also the taxation level increased of the same proportion, negatively affecting the citizens.

A second decree set in 2009 was the "Urgent measures to sustain industrial sectors in crisis", a series of expansive interventions directed to the families  $(4,5 \text{ billion } \in)$  and the companies  $(1,3 \text{ billion } \in)$ .

In May and in July 2010 the Italian government approved some corrective measures which aimed at the financial stabilisation and at the economy competitiveness. These actions had as objective the decrease of the public debt from 5% of 2009 to 2,7% by 2012, under the threshold of 3% defined in the stability and growth pact (La Gazzetta ufficiale).

In the moment when the sovereign debt crisis get worse, the government was forced to take more rigid actions in order to balance the public account, in order to contrast the scepticism which characterised the markets and which was increasing the interest debt. In consequence

the decree of July 2011 cut money transfer for the local entities and for the healthcare expense. But this action was not sufficient to slow down the speculation over Italy, and in august, under pressure of the financial market and the BCE, Italy introduced new measures; the objective was to reach a surplus of 6% by 2014. In order to obtain this surplus the government decided to increase the taxation level instead of cutting the expenses. This measure aimed at decrease the debt and it weighted a lot on the families, which saw the level of taxation reach its historical peak.

The 6 December 2011 government led by Mario Monti approved the decree "Salva Italia", which was necessary in order to contrast the scepticism over the Italian economy and in order to avoid a debt crisis. Important measures of this decree were the reintroduction of the Imu, tax over the first home, and the pension reform (La Repubblica, 'Decreto Salva Italia. Testo completo').

During 2012 two decrees were introduced in order to decrease the public expenses (spending review) and in order to sustain the growth and the development of the economy. These two decrees aimed to decrease and improve the efficiency of the public expenses (rationalisation of the expenses for goods and services to find resources to finance the economic growth). Moreover in order to answer to the requests, coming from the European union, the government approved different measures, the most important are: a plan to obtain the balance of the balance sheets by 2013; a strategy in order to decrease the public debt; a new retirement reform; actions in order to decrease the public expenses; an important reform for the labour market in order to increase the flexibility; a politics for the national development of the enterprises (European Economic and Social Committee, 2011).

In the 2013 the stability law of the year is approved in December and it defined: the exoneration from the Irap for the small entrepreneurs, an increase of the Iva from 21% to 22%, reduction of the tax wedge for the enterprises through the increase of the deduction for the dependent job, the introduction of two different taxes: Tares, new tax for the garbage and Imu, tax for the first house. In the same year the "Decreto del fare" has been signed and it defined some measures for the grow of the companies through: strengthen of the "Fondo di garanzia" for Sme, simplifying the way companies can take advantage of it; definition of supported investments for companies who want to buy new machineries, plants, capital goods (Governo.it; La Gazzetta ufficiale). Also "Destinazione Italia", during 2013, has been approved and it defined a tax credit for research and development, applicable to all

companies who make investments in R&D activities, the total budget was 2,5 million € and it was valid from 2014 to 2016.

During the year 2014 the government, with the object of respecting the international commitment with the EU, and in order to increase the employment and limit the public debt, focused its efforts on the economic policies to increase productivity and the competitiveness of the manufacturing activities. Also new measures to sustain the population more affected by the crisis had been introduced. The main objectives were: protection of the jobs; stimulation of the creation of new employment; improvement of the rules for the labour market; improvement of the social policies; introduction of incentives for the increase of the investments.

A plan called "Destinazione Italia" has been approved during the year and it aimed at increase the appeal of Italy in order to increase the foreign investments. In the same year the stability law has been approved and the most important points were: reduction of the expenses of 8,6 billion €; decrease of the tax wedge of 2,5 billion € through the reduction of Irpef and Irap; tare and Imu are substituted with Tari and Tarsu; reduction of the taxes for the companies between 2014 and 2016 of 5,6 billion € and for the workers of 5 billion € (Fotina, 2014).

#### 1.4.3 FRENCH PUBLIC POLICIES

In order to answer to the crisis and grow again, France adopted a series of measures and interventions.

First of all they started by supporting the banks; on October 2008, the French parliament approved a law, "Finances to fund the economy" aimed at restoring trust in the French banks and financial system. This law defined two measures: the first was to enhance the refinancing of credit institutions, the second was aimed at helping the recapitalization of financial institutions. The total amount of this intervention was limited to a maximum of 360 billion € (Economie. gouv.fr, 'Program national de réforme 2008').

Consequently in order to boost the economy growth, an economic stimulus package has been defined. On February 2009, French prime minister Francois Fillon approved a series of measures totalling 26,5 billion €. The measure was directed to increase the investments. It was divided in: €11.4 billion will go towards improving businesses' cash flow and allowing them to invest; €11.1 billion will be provided for direct state investment; and the remaining

€4 billion will be provided by large state-run companies to improve rail and energy infrastructures and the postal service.

Since 2010 the French fiscal policy became restrictive with the aim to get the deficit at 3%, as defined by the European Commission in the "Stability and Growth Pact", and at the same time they started to define plans in order to decrease the withdrawals of the firms.

In November 2012 the new pension reform has been approved. This reform aimed at increase the retirement age in order to boost France's growth rate and restore the sustainability of its public finances. In November of the same year, it has been approved also the "Nation Pact for the growth, the competitiveness and the employment", composed of 8 competitiveness leverages and 35 concrete actions; one of the major measure was the CICE (Crédit d'impôt pour la compétitivité et l'emploi), defined in order to decrease the labour costs, the aim was to decrease the weight of the taxes on companies, in order that they could increase their investments and upgrade the export. This Pact had other important reforms in order to increase the competitiveness of the country: stimulation of the innovation, export support and improvement in the access to financing activities (Gouvernement.fr, National Pact for growth, competitiveness and employment). This Pact brought some positive effects in the increase of the economic growth, but the French unemployment rate was still high and new measures were necessary. In the same year, on December, it has been approved the update of the public finances governance, with the introduction of the High Council of the public finances, which reinforce the credibility of the public finance engagement and it allowed to better answer to the requests of the European Stability Pact.

During 2013 in order to decrease the unemployment rate and in order to adjust the labour market it has been approved the "Contrat de génération" which defined: access for young to durable employment, transmission of the knowledge, keep the seniors at work until they reach the pension year. Moreover in April it has been proposed and approved the "Plan national de lutte contre la pauvreté et pour l'inclusion sociale", it aimed to guarantee to the young in hardship employment or education. In the same year "Accord national interprofessionnel" (ANI) has been accepted, it has as objective the definition of measures to protect the jobs in case of shock economic. In 2013, in order to decrease the public deficit, and in order to reach the target defined by the European Commission of 3%, France defined cuts in the public expenses of 50 billion from 2013 to 2017, which corresponds to a 2,4% pf the GDP (Parienty Arnaud, 2013). These cuts can be seen as the cause of the recession of the years

2011-2012, which characterised the country; in fact this action caused a stagnation in the economy which brought to a decrease in the demand and in the investments (Economie.gouv.fr, 'Programme national de réforme 2013').

In April 2014 the Responsibility and Solidarity pact has been a new stage in the Government's policy to renew growth and employment in France (Gouvernment.fr). The two objectives were: accelerate the businesses' job creation and increase the purchasing power of low income households, through a decrease of the cost of labour, reduction of the business taxation and simplification of the business formalities (OECD, 2014). In order to pursue the two objectives, previously mentioned, the Government decided some actions, the most important are:

- Reduction of the employs' contribution and reduction in the cost of labour, supported
  by a cut in the business taxation in order to allow businesses to further employ and
  invest.
- Simplification of the norms for businesses: simplification of the payroll, the removal of a norm for the creation of every new norm, a single declaration to create a company.
- To give households more purchasing power the government took measures to lower taxes for those earning less than 1.250 €/month.
- Increase of the social benefits for the most vulnerable, the ones with the lowest income. Improvement of the Anti-Poverty Plan with two revaluations: the Family Support Allowance and the Family Supplement.

The 31 December 2012 it has been created the BPI France (Banque Publique d'Investissement), which is the unique representative for the enterprises and it suggests them a series of loans to sustain the companies in their development and growth. The main objectives of BPI France are: help in the development of the PME; support the development of an ecosystem favourable to the entrepreneurship; make possible the competitiveness of tomorrow. BPI intervenes in partnership with the private actors, in financing activities like investment; it reinforces the investment capacities of the companies. BPI offers financing solution, adapted to each companies' needs. It helps the enterprises in their first financing needs: warranty, innovation, beginning activities; it sustains the growth of the PME; it helps ETI in their development and in their internationalisation activities (bpifrance.fr). BPI uses the following tools to sustain the enterprises financing activities:

- Liquid assets: debt mobilisation hold on the state and on the big enterprises; pre financing of the main tax credit; guarantee of the bank loans for the strengthening of the cash flow.
- Financing: loans for the long development without guarantee; medium and long loans through a co-financing with banks.
- Warranties given to the banks which support and finance the PME in their more risky activities.

In favour of the investments there are other measures which have been defined in order to help companies (Datar.Gouv.fr):

- "Le Prime à l'aménagement du territoire" (PAT): it aims to support the establishment and the development of enterprises in some priority zones and it aims to reinforce the competitiveness in France sustaining the research, development and innovation programmes. The highest number of accepted projects were capacity investments (extension).
- "Aide à la réindustrialisation" (ARI): available until 30/06/2014, it financed investment projects which create employments and with long terms results. It was a refundable loans over 5 years, without interest rate and with the possibility to postpone the refund of two years. All the companies of the industry sector and service sector could benefit from this possibility. More than 60 projects have been financed.
- "Fonds Européen de development regional" (FEDER): it finances directly some investments projects in companies (particularly PME) in order to create employment; it finances infrastructures linked with the research and innovation of telecommunication, environment, energy and transport; it finances the financial instruments in order to sustain the regional and local development and promote the cooperation between the cities and the regions. Europe invested 23 billion € for the French regions between 2007 and 2013.

### 1.4.4 COMPARISON BETWEEN ITALY AND FRANCE

Concluding, comparing France and Italy government supports, in the table are reported the evolution during the years of the economic government support, as a % of the GDP, in the two countries, which have been analysed in "Rapporto MET 2015":

	2004-2006	2007-2009	2010-2012	2013
France	0,92	0,65	0,72	0,63
Italy	0,44	0,37	0,29	0,23

TABLE 16- GOVERNMENT SUPPORT (% GDP) FRANCE AND ITALY

**SOURCE: RAPPORTO MET 2015** 

Italian industrial policies are one of the more mediocre in absolute in Europe and one of the most austere compared to the other countries. Italy was at the beginning of the years 90 one country with the highest amount of public support, now, on the contrary, it recorded the lowest amount of supplied subsidies (in Europe 28 countries), after Bulgaria and Estonian. Since the year 1994 the amount of economic support has been recording a constant decrease, reaching the historic minimum in 2013 (0,23%). France, instead, recorded quite important level of support and in 2013, it was 0,63%, more than the double compared to Italy, and higher than the EU average which is 0,48. The value in 2013 was also higher than the amount registered in the period 2001-2003, this underlined the effort of the country to face the problem and to try to help companies and industries to grow again.

### 2. INDUSTRY STRUCTURE

In order to understand why one country is reacting better than the other one, it is necessary to understand the internal structure of the industry. Analysing the evolution of it, it is possible to understand what the crisis affected and modified.

### 2.1 ITALIAN INDUSTRY STRUCTURE

In this section it is provided an analysis on the industrial structure in Italy. Moreover it is analysed the effects of the crisis and the evolution of the structure caused by the economic downturn.

In 2009 Italy was the ninth largest exporting economy in the world, and it was also the second largest manufacturing producer in Europe. After the crisis, in 2013, Italy reached the twelfth place in the worldwide exporting economy ranking, the effects of the crisis affected a lot the total export of the country due to the dimension of the firms in Italy (Geohive.com). In fact in Italy the highest number of enterprises are small-medium, as it is discussed below, and this structure didn't allow the firms in period of difficulty to access to the external market, which it went out the crisis before than Italy. The highest number of Italian firms had no capacity to access to the international market and this situation brought to a dramatic decrease of the production, due to the weak Italian market.

As it is possible to analyse from the ISTAT publication 'Rapporto annuale 2015. La situazione del paese' during the two recessions of the last years (2008-2009, 2011-2012), Italy registered a dramatic decrease of the turnover and of the production level. In the first phase (July 2008-June 2009), turnover and industrial production recorded a decrease of -24%, this has been caused by a drop of the external turnover of -31,8% and of the internal one of -24,9%. In this first moment, the external component has been hardest hit by the international financial market crisis and by the direct consequences on the economies. In the second recession (2011-2013) the internal component decreased higher than the external one, due to the public policies put in place by the Government and by the more difficult access to loans, this caused a decrease of -17% of the national industrial turnover, while the external one recorded an increase of +3%, thanks to the faster recovery policies adopted.

Italy has been always characterised by a diversified industrial structure, which is divided into a developed industrial north, dominated by private companies, and less developed, agricultural south with high unemployment.

In 2009 the industries in Italy were more or less 4.5 billion and had 17,5 billion of employees (ISTAT data). As it is possible to see from the table below, Italy was characterised by an high number of micro enterprises, which had lower than 10 employees, they represented the 95% of the total and they had the 47% of the employees. The 21% of the employees (3,6 billion) worked in small enterprise (10 to 49 employees); the 12,4% (2,2 billion) worked in the medium enterprises (from 50 to 249 employees) and to conclude only 3.718 enterprises were classified as big and they were accounted for the 20% of the employment rate (3,6 billion of employees).

Classes				Econom	ic activities				To	otal
	Industry		Construction		Commerce, transport, hotel		Other services			
	Firms	Employee s	Firms	Employee s	Firms	Employee s	Firms	Employee s	Firms	Employees
1	146.515	147.663	342.363	344.555	832.442	835.231	1.273.378	1.272.645	2.594.698	2.600.095
2-9	223.603	896.201	249.165	872.798	708.281	2.361.705	465.818	1.445.956	1.646.867	5.576.659
10-19	48.208	644.795	23.405	301.821	49.594	641.398	25.032	327.889	146.239	1.915.901
20-49	23.232	699.265	6.847	197.468	15.842	465.387	10.832	328.260	56.753	1.690.380
50-249	9.937	966.871	1.518	132.154	5.275	504.900	5.743	575.300	22.473	2.179.225
+250	1.490	1.107.764	84	54.212	916	1.078.172	1.228	1.308.579	3.718	3.548.727
Total	452.985	4.462.559	623.382	1.903.007	1.612.350	5.886.793	1.782.031	5.258.628	4.470.748	17.510.988

TABLE 17- NUMBER OF FIRMS AND EMPLOYEES PER SECTORS IN 2009 IN ITALY

SOURCE: ISTAT

In order to understand how the crisis affected the industrial structure of the country, here are reported the data of the year 2012.

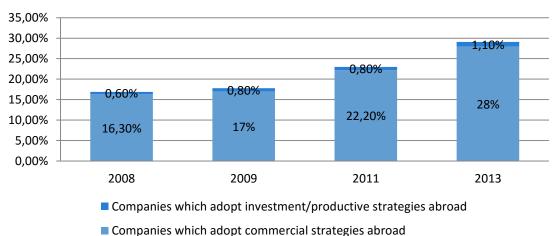
Classes				Economi	c activities				То	tal
	Industry		Construction		Commerce, transport, hotel		Other ser	vices		
	Firms	Employees	Firms	Employee s	Firms	Employees	Firms	Employee s	Firms	Employee s
1	152.737	138.812	338.537	310.115	826.474	802.639	1.335.13 1	1.227.850	2.652.879	2.479.417
2-9	209.328	838.297	210.172	714.598	705.317	2.372.807	452.034	1.398.252	1.576.851	5.323.954
10-19	43.578	581.923	17.085	220.378	49.270	636.423	24.268	317.062	134.201	1.755.786
20-49	21.317	640.997	5.302	153.087	15.933	466.264	10.761	324.886	53.313	1.585.234
50-249	9.282	903.396	1.237	105.835	5.160	487.621	5.927	592.100	21.606	2.088.952
+250	1.408	1.046.703	79	49.154	892	1.063.502	1.223	1.329.509	3.602	3.488.868
Total	437.650	4.150.128	572.412	1.553.165	1.603.046	5.829.256	1.829.34 4	5.189.660	4.442.452	16.722.21 0

SOURCES: ISTAT

It is possible to notice a huge gap between the year 2009 and the year 2012 in term of both total number of firms and employees. In particular looking at the numbers, all the classes of firms, except the one with an average of one employee, decreased in number (-0,6%), as well as the employment suffered a huge decrease of -4,5%. The contraction of the employment is very high in the construction and industry sector with a decrease of -18% and -7% respectively. In any case, as it was in 2009, in 2012 the highest number of firms were the micro-small enterprises, with lower than 10 employees and they were responsible of the highest employment rate.

The constant growth of the difference between the external demand and the internal one, that since 2010 characterised the Italian market, increased the propensity of the manufacturing companies to export and increased the differences of performances between the companies that sold in the international market and the one that sold only in the internal one. The internationalisation became a powerful solution, in order to diversify the risk and increase sales ('Rapporto MET 2015'; ISTAT, 'Rapporto di competitività 2014'). In the graph below it is possible to notice the percentage of the Italian companies presented in the foreign market.

## % internationalized enterprises



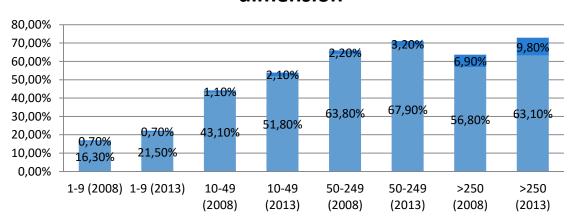
GRAPHIC 10- % ITALIAN INTERNATIONALIZED COMPANIES (2008-2013)

**SOURCE: RAPPORTO MET 2015** 

As it is possible to see, the number of Italian companies with some activities in the foreign market increased from 2008, reaching in 2013 the highest percentage of the last years (28%). The external market became a leverage and a strategic decision to overcome the weakness of

the internal market (as it has been theorised by Thompson (1967) and Langois (2003)) and it is possible to notice an increase of both companies which adopted commercial strategies (direct import and export, attendance to international exhibition, drafting of international deals with foreign firms), which from 2008 registered a +71%, and companies which defined investment and productive strategies abroad (foreign direct investment, execution of a part or total part of the production process abroad, agreement of technology exchanges with foreign firms), which increased of +83% (data from 'Rapporto MET 2015'). The internationalisation regarded all type of classes of companies; and from 2008 to 2013 increased the number of internationalized firms in all the dimensional classes, showing higher percentage with the increase of the company dimension.

# % internationalized companies, per dimension



■ Compaies which adopt investment/productive strategies abroad

■ Companies which adoprt commercial strategies abroad

GRAPHIC 11- % NUMBER OF ITALIAN INDUSTRIALIZED COMPANIES PER CLASS DIMENSION

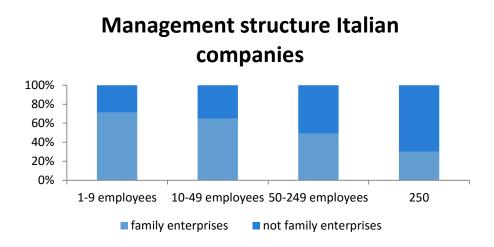
SOURCE: RAPPORTO MET 2015

As it is possible to notice the productive internationalisation was more frequent in firms of big dimension (> 250 employees), while the activities of commercial internationalisation were done more frequently by firms of medium-big dimension (49-250).

Concluding were especially the firms of medium big dimension which exported more because bigger firms could better sustain the high fix costs and they could sell easier to the external market. The bigger dimension was also correlated to an higher capital, higher R&D expenses, and higher productivity ('Rapporto corporate Efige 2011'). The consequence in Italy has been that due to the industrial structure and the presence of a big number of micro and small

enterprises, as described before, which relied on the internal market, the leverage of the export could not be used and so the growth has been weak and very slow. Moreover only a limited proportion of companies adopted systematic export strategies in their business model, while a majority looked to foreign markets only to compensate the weak domestic demand. Italian government, in order to strength the Italian industry's export base, doubled the budget for promotional activities in order to encourage firms to globalise, promoting trades (ISTAT, 'Rapporto annuale 2015. La situazione del paese').

In Italy, in the great number of enterprises prevailed governance model very simplified, characterised by high concentration of the ownership shares, a control especially familiar and a centralised business management. In 2011 (year of the ninth industry and enterprises census) the 81,4% of the firms were managed directly by the proprietary or controlling family, the 5% of the firms were managed by internal or external managers and in the remaining 13,7% they used other type of management. The choice to entrust the management in the hands of managers was dependent on the dimension of the companies and it was possible to notice it in the 3,2% of the micro enterprises, 10% in the small and more than 40% in the big (ISTAT, 'Censimento dell'industria e dei servizi 2011'). The familiar management prevailed in the medium enterprises and 60% adopted it.



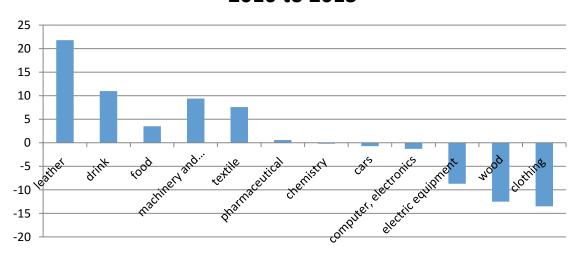
GRAPHIC 12- NUMBER OF FAMILIAR AND NON-FAMILIAR MANAGEMENT IN ITALY

SOURCE: RAPPORTO MET

The economic crisis affected the industrial sectors in different ways. As it is possible to see from the graph below, the manufacturing sectors have been hit hardly. Since 2007 the firms have been contracted by 19%, with sectors such as furniture industry, the clothing industry and the wood industry particularly badly hit. A decline of at least 20 % was recorded in 14

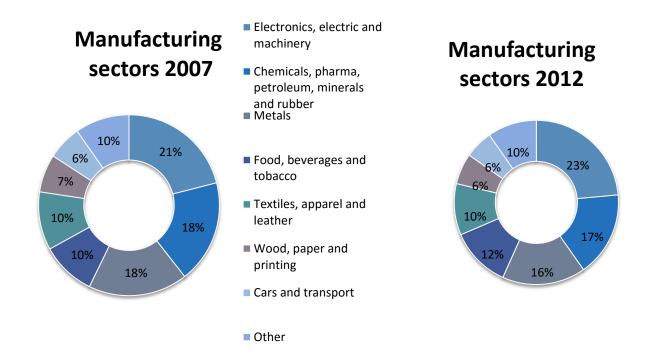
sectors out of 22, with a peak of 40% in the automotive industry. This is the result of an average decline of 24.5 % in manufacturing output (Europe Commission, 'Member States Competitiveness Report 2014). The sectors which performed better, the top performers, have been: the leather sector, the beverage industry, the food industry and machinery and tools industry, which realized an increased in the turnover in this period. Between 2010 and 2013, the 51% of the industrial companies recorded an increase of the total turnover: 39% increased the internal one, while 61% increase the external turnover (ISTAT, 'Rapporto annuale 2015').

# % variation of the turnover per sector from 2010 to 2013



GRAPHIC 13- % VARIATION TURNOVER PER MAIN SECTOR IN ITALY (2010-2013)

SOURCE: ISTAT



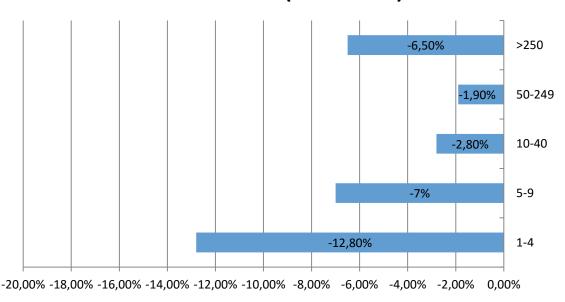
GRAPHIC 14- % MANUFACTURING SECTORS IN 2007 AND 2012 IN ITALY

SOURCE: EUROSTAT

The crisis affected especially the purchase of the durable goods and the capital goods, which have been badly hit by the decrease of the internal demand; on the contrary the turnover of the intermediate products and the non-durable goods has been supported by the external demand, which recorded a lower contraction during the second recession period (2011-2012).

Considering the credit market, last years, has been characterised by a dramatic reduction of the level of bank indebtedness of the Italian firms, especially for small enterprises: the 50% of them recorded a reduction, between 2009 and 2013, of the bank credit of more than 13%. In the following graph are reported data about credit crunch in the different class dimension, and it is possible to notice a general contraction of the credit for all the classes (Banca d'Italia, occasional paper).

### **Credit crunch (2009-2013)**



GRAPHIC 15- AMOUNT OF CREDIT CRUNCH PER CLASS DIMENSION IN ITALY

**SOURCE: BANCA ITALIA 2014** 

Near the considerations of the dimension of the company, the initial financial situation has been considered as an element of discrimination in the moment of credit access during the years of the crisis. Firms, with the highest level of indebtedness, have been penalized; banks started to prefer less risky subjects and with lower debt level. This has been a problem because in the segment of the weaker companies there were dynamic firms which needed credit to cover their strengths in innovative activities or international efforts. This had amplified effects on the small enterprises which were unable to soften the credit crunch with alternative financing methods.

As far as concern the role of the banks and the financing methods, in Italy the prevailing used tools were the bank credits and the auto financing. In 2008 the 58% of the firms used bank credit, of this the 39,9% was a short term debt (higher than the European average, which was 32,3%), the 47,6% was a medium long term debt, which was the most and common used, and the 3,3% used emission of bonds to finance. Considering the dimension of the firms, there aren't big differences, as it is possible to see from the table below. However the enterprises with more than 250 employees were a bit different from the other because they used more long term bank debt and more long term emission bonds than the other ('Rapporto corporate Efige 2011').

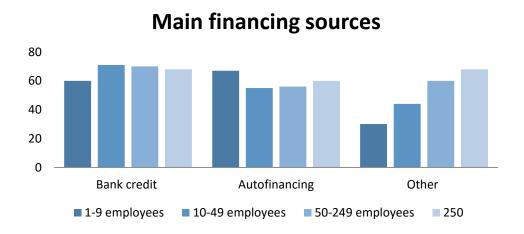
Employees	Short term bank debt	Long term bank debt	Short term bond emission	Long term bond emission	Other
10-19	40,2	47,0	0,3	0,9	11,6
20-49	39,8	47,9	0,3	0,6	11,4
50-249	40,1	47,2	0,6	1,1	11,0
+250	36,4	52,8	0,0	3,4	7,3
Total	39,9	47,6	0,3	0,8	11,4

TABLE 19- FINANCIAL SITUATION OF COMPANIES IN 2008 IN ITALY

SOURCE: EFIGE 2011

During the year 2009 many companies increased the external financing, especially the medium big enterprises have been the ones who increased this tool. This increase was due to a necessity of liquidity in the 58,9% of the firms, caused by the economic crisis which affected the cash flow and the repayment time which became shorter during the slowdown period. The 22% of the companies used this financing tool in order to increase the production through fixed investment, while the 10,36% used it to reorganise and balance their financial situation ('Rapporto corporate Efige 2011').

In 2012 the 62,5% of the firms used bank credit, while the auto financing, chosen by the 60% of the companies, was more widespread in the micro enterprises (62%) than in the small (53,4%), in the medium (56,8%) and in the big (59,9%). The financial tools have been a choice done by one firm over 3, more used especially in the medium (53,6%) and big enterprises (62,8%). The used of financial market was limited to the firms of big dimension, which had the possibility to have a financing profile more articulated (ISTAT (2013), 'Mercati, strategie e ostacoli alla competitività').



GRAPHIC 16- MAIN FINANCING SOURCES IN 2012 IN ITALY

SOURCE: CENSIMENTO DELL'INDUSTRIA E DEI SERVIZI. ISTAT

The big problem in Italy has been that during the crisis, started in 2009, the possibility to get and obtain a loan became very difficult because banks started to limited their lending due to the poor liquidity and the lack of confidence. This has been a big problem for the huge number of micro and small enterprises which rely especially in this form of financing; they could no more invest and growth and this represented a big barrier to grow again. One of the impossibility to get a new loan was the high interest rate on bank overdrafts and on new loans, which has been always much higher than the rate paid on comparable credit as for example in France. On the contrary big firms have been able to replace bank loans by issuing bonds, and this caused a more rapid improvement. The government has acted by strengthening the traditional tools to tackle the credit crunch, such as broadening the criteria for access to the Guarantee Fund for SMEs, giving support from the National Deposit and Loan Bank for productive investment by SMEs, providing subsidised loans to firms that invest in capital goods, and capitalising Consortia and Credit Guarantee Cooperatives (CONFIDI). In addition to improving these schemes, the government has taken steps to diversify firms' access to finance and reduce the bias towards debt financing. The success of these measures helped in supporting the recovery of the economy (Europe Commission, 'Member States Competitiveness Report 2014).

#### 2.2 FRENCH INDUSTRY STRUCTURE

France is stable at the 5th position as major exporting country in the world, also during the downturn it didn't lose its position (Geohive.com). France has the world's sixth largest economy by nominal figures and the ninth largest economy by PPP figures (International business publication, 2014). France and its industrial structure has been hit by the two recession which characterised Europe and the world, and from October 2007 to November 2013 it registered a decrease of the industrial production of -14,7%. During the first period (2008-2009) the French total turnover decrease of -15,4%, slightly lower than the other most important countries; in the second recession period (2011-2012) the effects on each country have been different: in France started in the fourth quarter of 2011, it lasted 12 months and the turnover decreased of -1,4% (ISTAT 2015, 'Rapporto sulla competitività dei settori produttivi').

In France, since the administrative order of 2008, the companies are classified in four different classes, which considers the number of employees, the turnover and the situation of the balance sheet. The four classes are the big enterprises (GE, +5000 employees), the medium enterprises (ETI, 250-4999 employees), the small-medium enterprises (PME, 10-249 employees) and the micro enterprises (1-9 employees). This classification is different from the one of Italy and it is necessary to paid attention when making comparisons.

This classification defines an industrial structure much concentrated, which in 2009 was characterised by 2,69 billion of firms in the trader sector, excluding the agricultural and financial one. Between these, the 95% of enterprises were micro enterprises, 2,56 billion of firms and they employed the 19% of the employees in France. In the opposite dimension there were 217 big enterprises (0,000037%) which gave work to the 31% of the employees. The big enterprises were the one which mostly contributed to the value added, they were in fact responsible of the 44% of the VA in the whole economy, while the ETI contributed with the 28,7% and the PME with the 26,8%. In France there are 31 of the 500 biggest firms in the world, and they contribute a lot to the economic importance of the country.

	Number of enterprises	Number of employees
GE (+5000 employees)	217	3.986.007
ETI (250-4999 employees)	4.576	2.877.952
PME (10-249 employees)	131.353	3.529.842
MICRO (1-9 employees)	2.555.003	2.377.504

TABLE 20- FIRMS CLASSIFICATION PER DIMENSION IN FRANCE

SOURCE: INSEE

Using the same classification of Italy the following results are obtained:

Classes				Economic	activities				То	tal
	Industry		Construc	tion	Commer transpor		Other ser	vices		
	Firms	Employees	Firms	Employees	Firms	Employees	Firms	Employee s	Firms	Employees
1-9	187.248	384.551	380.370	602.620	649.372	1.336.226	2.735.82 7	1.229.580	3.952.817	3.516.977
10-19	15.044	231.590	14.661	222.669	28.702	452.611	17.774	295.330	76.181	1.202.200
20-249	18.017	1.195.366	9.965	447.126	24.869	1.406.262	16.292	982.474	69.143	3.961.228
+250	1.706	1.740.723	290	253.451	1.265	1.972.993	1.118	1.371.174	4.449	5.238.341
Total	222.015	3.558.230	405.286	1.525.865	672.506	5.168.092	1.829.34 4	3.878.558	4.102.590	13.918.76 6

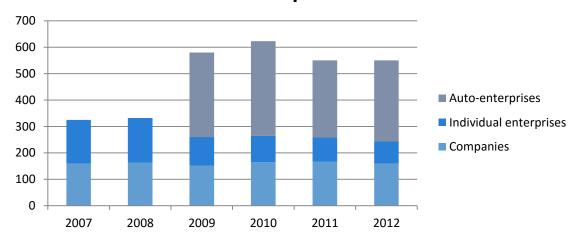
TABLE 21- FIRMS CLASSIFICATION PER DIMENSION IN 2008 IN FRANCE

SOURCE: ESANE

As concluded before the number of small enterprises is the highest, while the big firms have the highest number of employees and are the ones who create the biggest value added in the economy.

The crisis affected the whole economy, touching all the sectors and dimensions of the firms; this crisis also slowed down the creation of new firms and enterprises, in fact in this negative macroeconomic context people had the tendency to postpone or cancel the creation of a new activity and the ones that have been created were smaller than the previous years (INSEE 2014, 'Les entreprises en France').

# **Evolution of the number of founded enterprises**



SOURCES: INSEE

As it is possible to analyse from the graph, after the introduction of the regulation –Loi de modernisation de l'économie- (LME) issued in 2009, which allowed the creation of the autoenterprises, which are individual firms that can be classified as micro-enterprises, the number of new businesses increased. The creation of auto-enterprises raised particularly in the year 2010 at expenses of the other type of firms. On the other hand the societies that are created are less abundant.

In order to understand how the situation changed after the crisis, the following data are necessary:

Classes	Economic activities									Total	
	Industry		Construction		Commerce, transport, hotel		Other services				
	Firms Employees		Firms	Employees	Firms	Employees	Firms	Employees	Firms	Employees	
1-9	218.599	340.705	487.684	569.228	986.638	1.318.623	1.402.822	1.111.240	3.095.743	3.339.796	
10-19	14.043	220.324	15.645	238.434	30.063	477.185	20.030	350.532	79.781	1.286.475	
20-249	17.382	1.130.128	9.228	454.322	25.298	1.441.743	18.019	982.474	56.709	4.008.667	
+250	1.609	1.599.104	308	265.054	1.319	2.032.272	1.143	1.138.723	4.379	5.035.153	
Total	251.633	3.290.261	512.865	1.527.038	1.043.318	5.269.823	1.442.014	4.386.180	3.236.612	13.670.091	

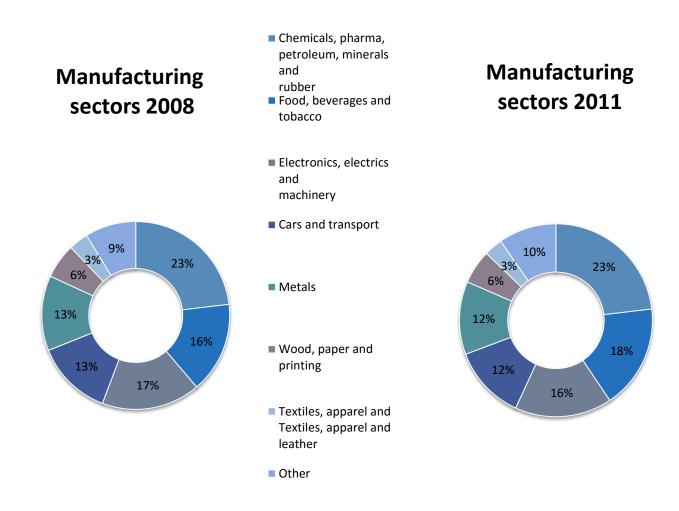
TABLE 22- FIRMS CLASSIFICATION PER DIMENSION IN 2012 IN FRANCE

SOURCE: ESANE

In 2012 considering all the sectors, except the agricultural and the financial one, there were 3,3 billion of enterprises with a turnover of 3.700 billion € and a value added of 980 billion €. The 4.379 big firms represented the 43% of the turnover and 43% of the value added. In opposition, the 3,1 billion of small enterprises contributed with the 22% of the turnover and the 25% of the value added. Comparing the data of 2009 with the one of 2012, it is possible to conclude that the crisis affected both the number of firms in the market and the employment. Both these data decreased from 2009 to 2012, especially the micro firms are the one with the biggest contraction.

Considering the sectorial breakdown, France is specialised in goods and services of medium-high innovation, in sectors that are both technology driven (manufacture of aircraft and spacecraft, pharmaceutical) and marketing driven (luxury goods, cosmetics). Compared to other States, France is less specialised in high innovation sectors such as electronics and computer machinery. The crisis has been particularly important for the manufacturing

sectors; the sectors which recorded the highest decrease have been the textile (-7%), the car sector (-5%), the wood and paper (-2%) and the metal one (-2,4%), the causes have been the substantial decrease of the consumption, of the investments and of the exports. The ones, instead, which registered better results in term of turnover have been the food and beverage sector, with a slow decrease of -0,9% and the pharmacy sector, which recorded a stable growth since 2002. (INSEE 2012, 'L'industrie manufacturière en France depuis 2008: quelles ruptures ?')



GRAPHIC 18- %MANUFACTURING SECTOR IN 2008 AND 2011 IN FRANCE

SOURCE: INSEE, EUROSTAT

In the following table is reported the evolution in % of turnover and export per firms class dimension.

	Turnover			Of which- Export			
	2009/	2010/	2011/	2009/	2010/	2011/	
	2010	2011	2012	2010	2011	2012	
PME	+3,5	+7,9	+2,9	+10,8	+13,8	+4,5	
ETI	+4,8	+8,2	+3,3	+10,1	+12	+3,4	
GE	+6,9	+7,3	+1,7	+15,9	+12,5	+2,1	
TOTAL	+5,3	+7,8	+2,5	+13,1	+12,5	+2,9	

TABLE 23- % EVOLUTION OF TURNOVER AND EXPORT IN FRANCE

SOURCE: BANOUE DE FRANCE

Considering the turnover and the data reported in the table, it is possible to notice that after an increase of the data in the year 2010/2011, the economic situation get worst in the year 2011/2012, especially in the big enterprises; instead the PME and the ETI have been less damaged by the downturn. This result could have been caused by the possibilities, given by the several programs for the credit and liquidity access set by the Government, that the ETI and the PME (which are mostly dependent on the bank credit) had in order to finance their projects. Given these results it is possible to affirm that the demand crisis, of which the companies suffered, was more relevant than the credit crisis (INSEE (2013), 'Les ajustements des entreprises françaises pendant la crise de 2008/2009').

Analysing the data of export, in 2010 France registered an increase of the export turnover of 10%; ETI and GE benefitted, more than the PME, from the vigorousness of the external market, registering an increase of 15,9% and 10,1% respectively. Almost all the big enterprises and more or less the three-quarter of the medium firms had an export activity and in 2010 they realised the 85% of the whole export. On the other hand only one-third of the small enterprises did export activity in 2010 and they were responsible of 15% of export activity. After the good results of the year 2010 and 2011, export decreased substantially in 2012 and it affected all companies sizes, caused by a slowing down of the global market. The big enterprises have been more affected with a growth of just 2,1% compared to the ETI (3,4%) and the PME (4,5%). The sectors, which have been hit mostly, were the automobile and the agricultural one; on the contrary the aeronautics and the pharmaceutical one obtained the best results.

Considering the access to finance and investment, France was among the best countries for delivering access to debt financing for small and medium enterprises (SME) and above

average for equity financing. The French banking system approached the financial crisis relatively well due to the resiliency and good capitalisation of banks. The creation in 2013 of an unique institution, Bpi France, in charge of managing public funds and guarantees, facilitated the access to finance (Europe Commission (2014), 'Member states' competitiveness report 2014. France')

In the following table are reported the data about the evolution of the debt in the different type of companies.

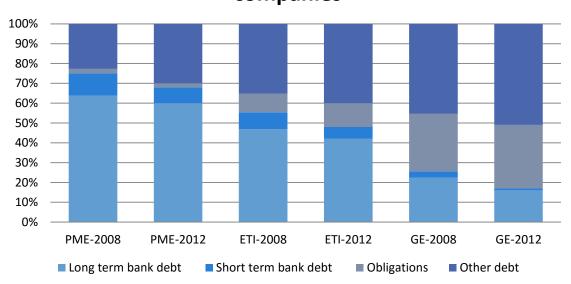
	Financial debt			Of which - Bank debt			Of which- Obligations			Of which- Other debt		
	2009/ 2010	2010/ 2011	2011/ 2012	2009/ 2010	2010/ 2011	2011/ 2012	2009/ 2010	2010/ 2011	2011/ 2012	2009/ 2010	2010/ 2011	2011/ 2012
PME	1,3	3,5	2,7	-0,3	2,1	0,7	4,8	6,9	15,6	4,0	5,4	6,0
ETI	1,7	4,1	1,3	-3,6	-0,5	-5,5	17,2	12,3	19,5	3,9	5,3	3,0
GE	2,7	6,1	4,5	-12,6	1,1	-12,4	8,7	7,8	11,3	7,3	3,5	1,3
TOTAL	2,3	5,2	2,8	-5,9	0,7	-5,9	9,8	8,4	12,5	6,1	4,2	2,1

Table 24- evolution of the debt in French companies in %

SOURCE: BANQUE DE FRANCE

The financial debt grew with at lower intensity in 2012 compared to the one of 2011, year in which it is possible to notice a huge increase of the debt. This increase of financial debt was particularly more relevant in the GE, companies in which the effort to invest continued to expand and the necessity of working capital has been always heavier. Disposing a more easy access to the financial market, the big enterprises replaced the bank credit with the obligations, which represented a big portion of their financial debt. This behaviour was especially done by the big companies with a presence in the stock market. More dependent from the credit were the PME, which instead increased the bank debt, especially they increased the short term debt, in order to cover their immediate need of working capital. On the contrary they decreased their long term debt, as it is possible to see from the graph below, due to a reduction of investment. The situation of the ETI was more similar to the one of the PME, which had a more contribution of bank debt to the total debt and it has been quite stable over the years. To conclude the bank debt decreased of -5,9% in 2012; this decrease of bank debt leaded an increase of the obligations and of other debt.

# Structure of the financial debt of the companies



GRAPHIC 19- STRUCTURE OF THE FINANCIAL DEBT OF THE COMPANIES IN FRANCE

SOURCE: INSEE

Another important information to consider is the level of investment of the companies. In the table below are reported the evolution of the investment over the years, expressed as %growth.

	Investme	nt			Auto-financing				
	2009/	2010/	2011/	2012/	2009/	2010/	2011/	2012/	
	2010	2011	2012	2013	2010	2011	2012	2013	
PME	- 11,0	+6,3	-13,7	-11,3	+10,5	-3,9	-10,2	+10,4	
ETI	- 2,9	+4,0	-4,3	-10,3	+13,3	+0,7	-15,1	-2,6	
GE	- 7,1	+8,1	+3,6	+3,9	+19,2	-12,4	-16,4	-2,8	
TOTAL	- 6,5	+6,2	-3,4	-4,3	+15,9	-7,3	-14	0	

TABLE 25- LEVEL OF INVESTMENT AND AUTO-FINANCING IN FRANCE

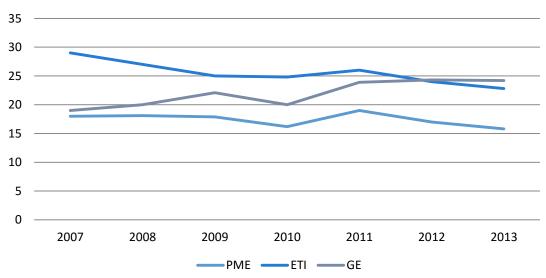
SOURCE: BANQUE DE FRANCE

In 2008 the level of investment was stable at 18,3% and it was particularly high in the big and in the medium enterprises; during the year 2009 the investments substantially decreased especially in the PME and in the GE, in which the reduction has been -11% and -7,1% respectively. In 2010 the registered investment rate in the EPI was 24,8%, in the GE was 20% and the PME was 16,2%, this big difference between the small and the medium big enterprises was due to the fact that given the number of the PME only a quarter of the firms invested, while almost all the medium and the GE registered a regular expense flow during the years. During the year 2010 and 2011 a slow increase characterised the investment expenses

but again in 2012 and 2013 the situation get worst again, especially for the small and medium firms, due to a contraction of the market demand and a low urged production capacity. On the contrary the big enterprises pursued their investment effort, driven by important operations in the energetic and transportation infrastructure sectors (Banque de France (2014), 'Les entreprises en France').

Summarising the evolution of the investment rate in the graph below, it is possible to notice higher propensity to invest especially in the medium and big firms, which record the highest values. In 2013 the investment rate of the GE overtook the one of the ETI, which had the highest rate since 1999. The small companies have been always characterised by a variable propensity to invest during the years and a big part of them never spend the fixed capital.

## **Companies' investment rate**



GRAPHIC 20- COMPANIES' INVESTMENT RATE IN FRANCE

SOURCE: BANQUE DE FRANCE

# 3. SECTORS ANALYSIS

After the analysis of the aspects of the crisis and the industry structure of the two countries, the focus is moved to the specific sectors in order to understand the main indicators and the conditions of them during the recession period.

The sectors, which have been decided to analyse, are the food and drink sector and the automobile one. The main decision to take into considerations these two branches is that, considering the analysis of the industry structure, in France is relevant that they represent a big portion of the turnover and of the employment rate. Also in Italy, especially the food and drink sector, is an important area which drives the grow of the country; the automobile sector is less relevant due also to the presence of only one big Group, which, in any case, is able to influence the economy conditions of the country. Moreover, it is interesting to understand how these two divisions reacted to the crisis, considering two aspects in which they present some differences, which are the export level and the R&D expenses, and which have been considered means to grow in a period of crisis of the European market. Analysing the evolution of the export, on which the two countries but also the two sectors rely on, it is possible to highlight which, between the automobile and the food and drink sector, has been able to increase it and diversify the risk by increasing the sales outside the own country. The international market should have become fundamental for the companies in order to survive, due to the weakness of Italy and France, especially the emerging countries became the way to grow again. Beside this aspect, these two sectors are different for the level of R&D required; the automobile one in fact is characterised by high R&D level, in order to be always more competitive in the market; while the food and drink sector, which consist on everyday products, is less dependent on the innovation level, and analysing how this expense changed during the years, it is possible to understand if the sector, which in theory need more R&D, has been able to use this leverage, and moreover if also the food and drink sector used this means in order to grow.

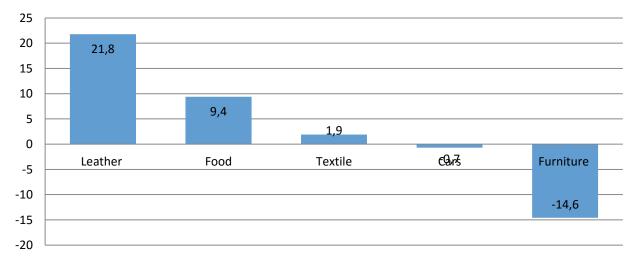
These two sectors are also sectors which interact directly with the final customers, which is the population, and analysing the most important aspects related to them, it is possible to understand the effects of the crisis on the consumers' behaviour, figuring out how the propensity to buy, the average expense or the priority expenses changed during the years.

### 3.1 ITALIAN FOOD SECTOR

The food and drink industry is the largest manufacturing sector in the EU in terms of turnover, value added and employment. It is the second leading manufacturing sector in terms of number of companies in EU. Thanks to the fact that is a non-cyclical sector, the food and drink industry showed continued stability during the recent economy downturn. In Europe, Italy is classified at third position in terms of total turnover, after Germany and France. In 2009 Italy registered net sales in the food and drink sector equal to 120 billion €, while in 2012 the amount was 130 billion €. Germany and France instead were characterised by a turnover of 147.7 and 139 billion € in 2009, while in 2012 169,3 and 160 billion € respectively (fooddrinkeurope.eu publication).

In Italy, the food industry plays an important role in the manufacturing and in 2013 it was the third most important sector, behind the mechanical and the textile, and it counted the 14% of GDP creation (ISTAT (2015), 'Rapporto sulla competitività dei settori produttivi'). The trend of the food industry has been hit by the crisis, but in a weaker way respect to other Italian sectors, as it is possible to see from the graph below, in which are reported the percentage variations of the turnover from 2009 to 2013 of different sectors in Italy. The food sector is one with the best result in term of variation of the turnover.

### % variation turnover (2009-2013)



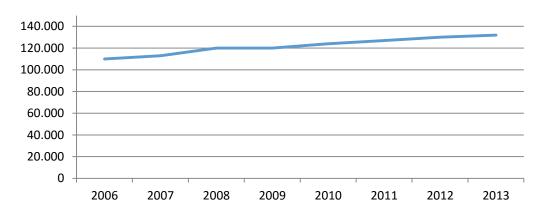
GRAPHIC 21-% VARIATION OF THE TURNOVER ITALIAN FOOD SECTOR

SOURCE: RAPPORTO COMPETITIVITÀ 2014

Considering in the analysis also the beverage and tobacco sectors, the turnover in 2013 reached 132 billion € with a reasonable growth from the previous year. Reporting the ISTAT

data (graph), the values of the production in the sector registered in the last years a positive trend, except for the contraction of the year 2009, in which we can see no growth. The stability of the turnover represents a positive aspects in downturn period and it is the case of the sector in analysis.

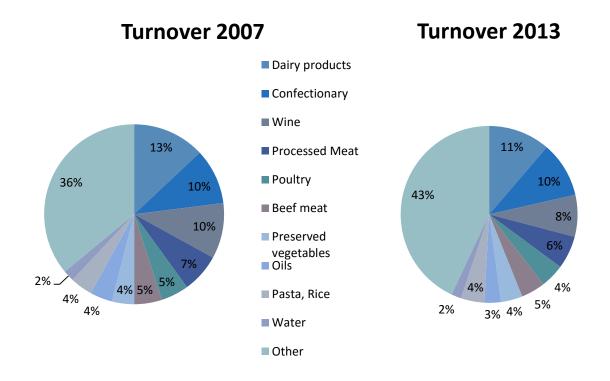
### **Italian sector Turnover**



GRAPHIC 22- ITALIAN FOOD AND DRINK SECTOR TURNOVERIN MILLION €

SOURCE: ISTAT

In 2007, the turnover of the food sector was 113 billion  $\in$ . The dairy represented the main production (13%), then confectionary (10%), wine (10%) and processed meat (7%). In 2013 the turnover was 132 billion  $\in$  and the main sold products were again dairy, confectionary, wine and processed meat; but it is possible to notice a decrease of the turnover from 2007 to 2013 especially for the dairy products and for the wine (Federalimentare Banche dati).



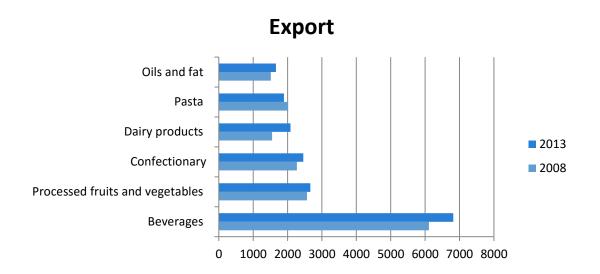
GRAPHIC 23- % TURNOVER PER SPECIFIC PRODUCT 2007-2013 ITALIAN FOOD AND DRINK SECTOR SOURCE: FEDERALIMENTARE

In order to evaluate the role of the Italian food industry respect to other EU countries, have been taken into consideration the data of import-export over the last years.

Analysing data of Federalimentare website it is possible to understand the evolution of export and import. Considering the year 2008, the first year of the crisis, the exports were 19.572 million € and the imports were 15.918 million €, with a positive balance of payment of 3.653 million €. In 2013 the value of the export of food products was 16.863 million € whereas the import reached 12.801 million €, with a positive balance of payment of 4.061 million €. Considering these values it is possible to state that crisis affected considerably the value of import, which decreased of 20%, caused by the dramatic drop of the internal demand. Also export decreased during the last years but in a weaker way (-13%), it is probably due to a more rapid recovery of the external market compared to the Italian one.

In the graphs below it is possible to observe the distribution among the different sub-sectors of the food industry. In 2008 the sub sectors which contributed the most to the export were the beverages one (6.112 million  $\in$ ), with the wine which had the highest value 3.919 million  $\in$ , followed by the confectionary sector (2.274mil  $\in$ ) and the pasta with an export value of

2.016 mil €. In 2013, seven years after the spread of the crisis, it is possible to certify an increase of the export values, especially in the sector of the beverages, pull by the constant increase of the wine sales. But also the oils, the dairy foods and the confectionary sectors registered an increase in the export. This positive effect can be caused by the lower elasticity of the sector and by the high quality and the healthy aspect perceived, which are important characteristics for the Italian food industry. The Made in Italy, identified especially with the top products wine and pasta, has been identified by a valuable and differentiated aspect, which contributed to the positive results.

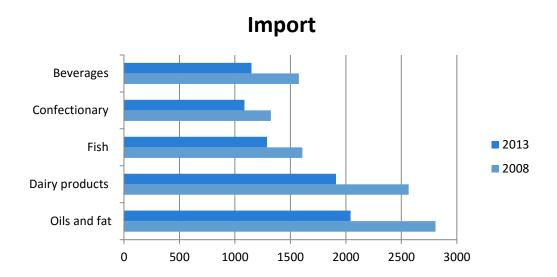


GRAPHIC 24- ITALIAN EXPORT PER SPECIFIC INDUSTRY IN FOOD AND DRINK SECTOR 2008-2013

SOURCE: FEDERALIMENTARE

The greatest part of the Italian export of the food industry is directed to the Euro area and the most important countries with which Italy export are Germany (4.360 mil €, year 2013) and France (3.053 mil €, year 2013). Outside the EU area, USA is the third most relevant export partner (2.790 mil €, year 2013). This situation isn't changed during the years, especially in this specific sector.

Considering now imports, in 2008 the greatest value registered was the sub-sector of oils and fat with 2.8 billion  $\in$ , followed by the dairy products with 2.46 billion  $\in$  and the fish products with 1.6 billion  $\in$ . Considering the year 2013, the sub-sectors of oils and fat was still the first in term of importance with 2.04 billion  $\in$ , then there were the dairy products (1.9 billion  $\in$ ) and the fish products with 1.2 billion  $\in$ .



GRAPHIC 25- ITALIAN IMPORT PER SPECIFIC INDUSTRY IN FOOD AND DRINK SECTOR 2008-2013

SOURCE: FEDERALIMENTARE

All the import of the different sub-sectors suffered a lot after the crisis of 2009. The import consumption shrunk due to the drop of the internal demand, the decrease of the welfare and the individual income. The most important partners in Europe, as for export, are Germany (14%) and France(7%), and the third is China (3%).

Another important aspect to consider is the value added; data shows an increase of the value added from 2010 to 2013 of 2,2%, reaching the value of 25 billion euro. This identifies an increase of the earning obtained in the sector (INEA Banche Dati).

	2009	2010	2011	2012	2013
Agriculture,	27.100 mil	28.417 mil	30.880 mil	31.901 mil	33.699 mil
fishing					
Food,	23.391 mil	24.801 mil	24.426 mil	25.184 mil	25.735 mil
beverage,					
tobacco					
Manufacturing	224.480 mil	228.279 mil	232.204 mil	219.090 mil	216.520 mil
industry					
Total	274.971 mil	1.444.426	1.471.428 mil	1.462.787 mil	1.456.803 mil
		mil			

TABLE 26-EVOLUTION OF VALUE ADDED PER MAIN SECTOR IN ITALY

SOURCE: INEA

Analysing data from ISTAT about the employment rate, from 2012 to 2013 it has been registered a decrease of the number of employees in the food, beverage and tobacco sector of -0,4%, reaching the 448.000. In any case this level of occupation is higher than the level in the

years 2008 and 2010, the situation can be considered quite stable. A different trend has been registered in the agricultural and manufacturing sectors in which the employment rate substantially decreased from the level pre-crisis.

	2009	2010	2011	2012	2013
Agriculture, fishing	999.000	960.000	942.000	913.000	884.000
Food, beverage, tobacco	439.000	443.000	452.000	450.000	448.000
Manufacturing industry	3.988.000	4.166.000	4.135.000	4.066.000	3.990.000

TABLE 27- EVOLUTION OF TOTAL NUMBER OF EMPLOYEES IN THE ITALIAN FOOD AND DRINK SECTOR

SOURCE: ISTAT

Considering the dimension of the firms in Italy in 2010, the food and beverage sector registered a total number of active enterprises of 59.730, with 443.000 employees. Of these 443.000 employees, the 37.4% were hired in micro enterprises, the 27,4 % in small, the 16,6% in big and the 16,8 in large firms. It is possible to see an high concentration of the employees in micro and small firms, which are also the most frequent in the sector.

Considering the structure of the productive system, analysing the data of Infocamere and Movimprese, the Italian food industry was characterised in 2010 by 59.730 active firms, of which 56.432 operating in the food sector and 3.298 in the beverages sector. Considering the number of recorded companies, the total number of firms became 67.898, of which 63.885 in the food and 4.013 in the beverages. Comparing these data with the one of 2013, in which the total number of active firms was 60.249 (food: 56.940, drink: 3.309), while the recorded one was 68.420, of which 64.380 in the food sector, and 4.040 in the beverage, it is possible to conclude that from 2010 to 2013 both the registered and the active firms increased in food and beverage sub-sector, with a weak slowdown in the years 2011 and 2012. The number of ceased firms has been always very high especially in the food sector, and a peak has been registered during 2011, moment of the second recession.

Food and	2010		2011		2012			2013				
firms	Food	Bevera ge	Total	Food	Beverage	Total	Food	Bevera ge	Total	Food	Beverag e	Total
Recorded	63.885	4.013	67.898	63.708	3.997	67.705	63.650	3.968	67.618	64.38 0	4.040	68.420

Active	56.432	3.298	59.730	56.389	3.290	59.679	56.310	3.266	59.576	56.94 0	3.309	60.249
Registered	1.413	32	1.445	1.314	29	1.343	1.348	33	1.381	1.656	45	1.701
Ceased	2.937	159	3.096	3.067	142	3.209	2.972	165	3.137	3.010	135	3.145

TABLE 28- NUMBER OF FIRMS IN ITALIAN FOOD AND DRINK SECTOR

SOURCE: INFOCAMERE, MOVIMPRESE

Always considering the data of Infocamere and Movimprese and analysing the legal status of the companies in this sector, the structure of limited company prevail in the beverage subsector, while in the food production they represent a small fraction. In the food sector, as it is possible to see from the data in the table, the individual firms represent the legal status most implemented, and this is due to the high fragmentation of the sector. The structure of the limited company continuously increased from 2010, recording a +5,4%, while the partnership decreased of -0,2% and the individual firms of -1%. The structure of the partnership has been quite stable in the different years and it represents the second most frequent legal status both for food and beverage.

Food and				2011		2012				2013		
beverage firms	Food	Bevera ge	Total	Food	Beverage	Total	Food	Bevera ge	Total	Food	Beverag e	Total
Limited company	10.002	1.473	11.475	10.310	1.483	11.793	10.507	1.505	12.012	10.90 9	1.554	12.463
Partnership	17.417	867	18.284	17.432	857	18.289	17.348	837	18.185	17.37 6	840	18.216
Individual	27.291	735	28.026	26.962	720	27.682	26.762	697	27.459	26.99 3	679	27.672
Other	1.722	223	1.945	1.685	230	1.915	1.693	227	1.920	31.66 2	236	1.898

TABLE 29- STRUCTURE OF ITALIAN FOOD AND DRINK COMPANIES

SOURCE: INFOCAMERE, MOVIMPRESE

In order to analyse the most important enterprises of the sector, are reported in the table the data taken from Mediobanca report, about the turnover and the number of employees. At the first position there was Ferrero, which in 2013 reached a turnover of 2.697 million euro, followed by Barilla with 2.369 million and Gesco Amadori with 1.499 million € of turnover. At the fourth, fifth and sixth position there were three international groups: Nestlè with 1.186 million, Coca Cola with 1.027 and Big with 1.008 million euro of turnover. They were followed by an Italian enterprise Lavazza with 1.144 million € and then Galbani and Parmalat. Between these ten most important companies working in the Italian sector, four belong to foreign groups, and this underlines the international presence in the country.

Companies	Turnover	(million)	Emplo	oyees	Main activities
	2010	2013	2010	2013	
Ferrero spa	2.327	2.697	5.938	6.114	Confectionery
Barilla G. e R. fratelli spa	2.245	2.369	4.210	4.203	Pasta
Gesco consorzio cooperativo Scarl	1.110	1.499	545	1.499	Meat
Nestlè Italiana spa	1.108	1.186	3.407	3.419	Confectionary
Coca Cola Hbc Italia srl	1.148	1.027	3.098	2.388	Beverage
Big srl (gruppo Lactalis Italia)	1.040	1.008	1.115	1.035	Dairy food
Luigi Lavazza spa	975,5	1.144	1.606	1.593	Coffee
Egidio Galbani spa	830,56	871	1.841	1.831	Dairy food
Parmalat spa	821	857	1.630	1.768	Dairy food

TABLE 30- MOST IMPORTANT COMPANIES IN THE FOOD AND DRINK SECTOR IN ITALY

SOURCE: MEDIOBANCA

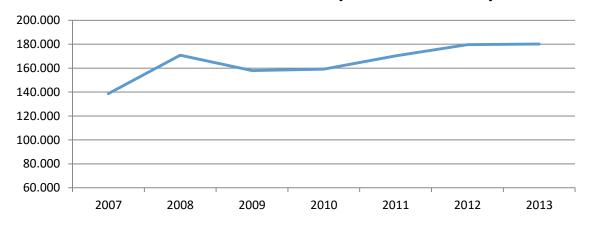
Analysing the data it is possible to notice that all the companies analysed, except the Coca Cola and Big srl, increased the turnover from 2010 to 2013, and this is in line with the expansion of the turnover of the sector. Despite the difficult situation, which the economy and the country experienced, the food and beverage sector reacted quite well during the last years under analysis, this is probably due to the relative high importance of the foreign markets, which were important distribution channels for the sector.

## 3.2 FRENCH FOOD SECTOR

France is one of the world's biggest agribusiness producer and exporter. The agribusiness includes the food sector, beverage sector and tobacco one. These three sectors make an important contribution to the health of French economy and they occupy the second place in the EU. These sectors contribute for the 18% of the total turnover of the manufacturing sector (data from foddrinkeurope.eu).

In the graph are reported data of turnover of the food and drink sector in France from 2007 to 2012, these data come from the statistic national institution (INSEE). Analysing the data it is possible to notice that the turnover of the enterprises of food, beverage and tobacco had a quite positive trend, and except the year 2009, in which it has been registered a decrease of -7,5%, the turnover constantly increased, in spite of the difficult economic situation. The results of this sector were stable, due to the quite constant consumption of the customers.

## French sector Turnover (in million euro)

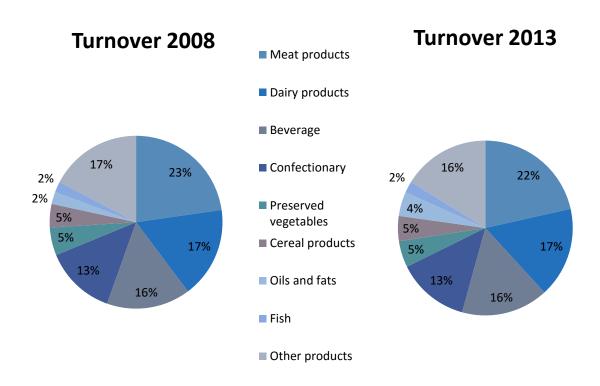


GRAPHIC 26- FRENCH FOOD AND DRINK SECTOR TURNOVER

SOURCE: INSEE

Considering the single products of the food and beverage sector, in both the years under analysis (2008 and 2013), in France the most profitable and with the highest turnover were the industries which produced meat, which contributed to the 23% of the total revenues, followed by the dairy products with the 17% and the beverage industries, especially supported by the wine production. The meat production was an industry of 35.546 million  $\in$  in 2012, while the dairy products and the beverage sectors contributed with 27.667 and 26.637 million  $\in$  respectively.

During the years of the crisis, the specialisation of the industries has been quite stable; the greatest number of the sub-sectors recorded an increase in the level of turnover: from 2008 to 2013, fish products increased of +11,8%, the beverages of + 7,8%, the cereal products of 7,1% while the production of oils and fat of 3,14%. Only the meat production and the preserved vegetables and fruits products suffered a decrease, respectively of -0,6% and -6,7%.



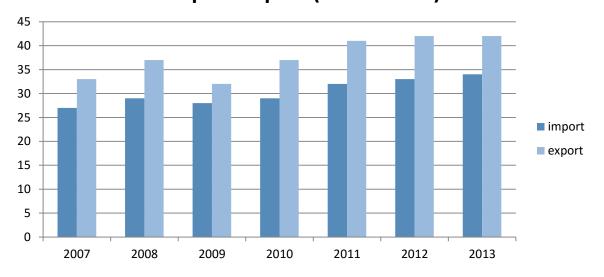
GRAPHIC 27- % TURNOVER PER SPECIFIC PRODUCT FRENCH FOOD AND DRINK SECTOR SOURCE: INSEE

In order to understand the importance of the food and beverage sector in Europe, it is important to analyse the import and export data. France is the fourth most important country in the world to export in this sector, after USA, Germany and Holland, while it is the fifth country in the world for the import, after US, Germany, Japan and England (info from foodexport.org).

As it is possible to see from the graph, analysing data of the French Agriculture ministry, both import and export registered a positive trend, from 2007 to 2013 export grew of 30%, while import recorded an increase of 25,9%. Only in the year 2009 due to the spread of the economic and financial crisis, both import and export decreased in value, reaching their minimum value of the last years. The loss of the import from 2008 to 2009 has been less relevant than the one of the export, which suffered more, the first in fact registered a -5,7%,

while export a -11,7%, due to the difficult economy conditions of the countries toward which France exported. In 2009 it was registered a commercial deficit of the manufacturing industry of -56,3 billion €, which it increased after a bad fall during 2008, reaching the value of -71 billion €. On the contrary, in the food and beverage sector the difference between import and export had a positive trend and it was recorded as 6 billion during 2008 and 4 billion € in 2009. This surplus was obtained by the exports of milk industry and beverage one. In 2010 an increase of +46% of the export was registered, followed by an enhancement of the commercial surplus. From 2010 to 2012 the surplus has always been positive; exports were higher than imports, and this was in opposition with the result of the manufacturing industry, which recorded a deficit in the last years. In 2013, there has been a change in the trend: export continuously increased, but import recorded a bigger gain and the commercial balance shrank of 7% reaching 8.5 billion €.

# Import-Export (billion euro)



GRAPHIC 28- EVOLUTION IMPORT-EXPORT FRENCH FOOD AND DRINK SECTOR

SOURCE: AGRICULTURE.GOUV.FR

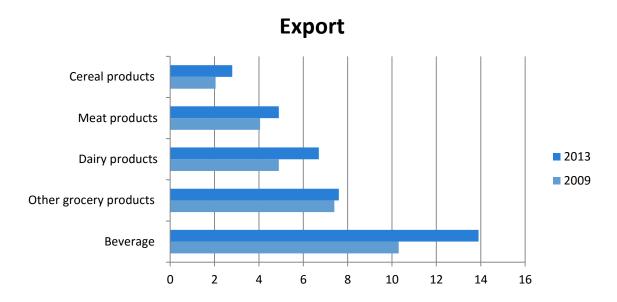
In the following graphs are reported the evolution of the data, taken from INSEE, of export and import for the most important products traded.

In 2008 the beverages sector was at the first position as sector with the highest export with 10.3 billion €, pull by wines and spirits, which recorded total sales in the foreign market of 9,5 billion. Due to the crisis these products recorded a big fall in value from 2008 to 2009, moving from 9,5 billion to 7.5. Wines have been the ones mostly affected -19%, while spirits recorded a weaker fall -12%. In the second position in 2009, as products with highest export, were

recorded the other groceries products, with total sales in the foreign market of 7,4 billion euro and a decrease from the previous year of -0,9%. The dairy products were at the third position with 4,9 billion € in 2009, registering -11% from 2008.

In 2013 the beverage sector stayed stable at the first position with total sales in the foreign market equal to 13.9 billion €; wines and spirits were the leading products with an export value of 10 billion euro. The second mostly traded products were the other grocery products with a total sales in billion euro of 7.6. At third position, as in the year 2009, the dairy products are recorded, with a surplus of 3 billion euro in 2013 and export equal to 6.7 billion.

As it is possible to notice from the graph, the three most important exported products registered a huge increase from 2009 to 2013, especially the beverage sector. Wine and spirit pull the commercial balance in surplus, without these products it would be negative since 2004.



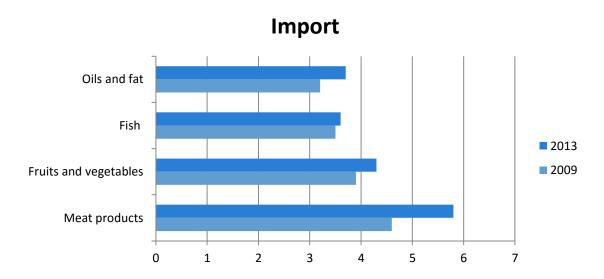
GRAPHIC 29- FRENCH FOOD AND DRINK SECTOR EXPORT PER SPECIFIC SUB-SECTOR

SOURCE: INSEE

As far as concern import, in 2009, meat products were recorded as the goods with the highest value of import with a total of 4.6 billion euro, 8% less than the year 2008. In the second position France mostly imported fruits and vegetables products, which in 2009 reached the value of 3.9 billion €; it is followed by fish with a value of 3.5 billion and oils and fats, which registered 3.2 billion euro of import.

Analysing the data of 2013, meat products are always the one with the highest imports, which reached 5.87 billion €, recording an increase of 21,7%. Stable at the second position, there

were fruits and vegetables whose import value was 4.30 billion in 2013, with a growth from 2009 of 11,7%. The fish products reached a total import of 3.6 billion, while oils and fat registered a value of 3.7 billion €. These products were also the one with a negative commercial balance; exports were lower than imports, and this situation continuously worsened, as it is possible to notice from these data, in which imports increased their values. Meat products are in deficit since 2004, and the situation is getting worse year after year; a possible cause can be a decrease of the profitability of the sector, due to an increase of the working cost and of the raw materials. The worst result has been registered by fruits and vegetable products, which reached a deficit in 2013 of 4.14 billion €, while in 2000 was 2 billion; it is caused by the increase of the demand of the exotic fruits (INSEE).



GRAPHIC 30- FRENCH FOOD AND DRINK SECTOR IMPORT PER SPECIFIC PRODUCT

SOURCE: INSEE

The main countries toward which export are directed are the European ones; even if from 2007, in which the total export toward Europe represented the 71%, to 2013 they decreased reaching 63%. The main receivers in Europe of the French products are Germany, Belgium, Italy, Great Britain and Spain. Outside the EU, the trend registered in the last years, is an increase of the export toward USA, China, Russia and Saudi Arabia. France became the first extra-UE exporter in Europe, its first client became the Far East, with a growth per year of 24% since 2008. The European countries mentioned before represent also the most important importer in France and this trend is stable since 2008.

Another important aspect to be considered is the value added; data have been found on the website of Agriculture.gouv. The food and drink sector in 2008 contributed with the 13% to

the value added of the manufacturing industries, in 2010 the value added became 15,5% and in 2012 it was 17,6%; this positive trend confirms the importance of the sector in the French industry and underlined the positive reaction of the sector to the crisis. Looking in detail at the sub sectors, it has been recorded a decrease in values in the year 2012 for the great part of them, especially the meat production, fish, vegetables and fruits and cereal products, after a huge growth in the year 2010. Some other sectors instead had a positive progress after 2008; the oils and fat sector was the one which registered the best results +34,3% of VA, followed by the beverage sector +31,6% and the dairy products +30%.

	2008	2010	2012
Meat products	4.901	5.387	5.235
Fish	547	612	607
Vegetables and fruits	1.440	1.569	1.543
Oil and fat	349	426	469
Dairy products	3.343	3.643	4.368
Cereal product	1.190	1.443	1.345
Confectionary	2.326	2.693	2.602
Other products	5.471	6.025	6.524
Beverages	5.460	6.148	7.179
Total	26.430	29.521	31.518

TABLE 31- FRENCH FOOD AND DRINK SUB-SECTOR VALUE ADDED (IN MILLION €)

SOURCE: AGRICULTURE.GOUV

Analysing the employment in the food and beverage sector (Ministère de l'alimentation, de l'agriculture et de la peche (2013), 'Enjeux des industries agroalimentaire'), as it is possible to see from the table, the total number of effective employees in 2009 were 511.170, considering also the artisans and the tobacco sector, and it was classified as the second sector in France in order of number of employees; this value registered a decrease in the year 2010 and 2011, but it started to increase again in the year 2012. The sub sector with the highest number of employees was the confectionary production, which since 2009 registered a positive trend, reaching in 2012, 169.900 effective employees; the meat production and transformation, which recorded a decrease during 2011, recorded in 2012, 116.700 employees; and the dairy products had a quite stable trend during the years, and in 2012 there were 51.300 employees.

	2009	2010	2011	2012	2013
Meat products	112.500	119.100	113.300	116.700	116.050
Fish	9.800	11.400	11.000	11.100	11.150
Vegetables	25.000	23.800	23.800	22.400	22.200
and fruits					

Oil and fat	2.400	2.800	2.800	3.600	3.500
Dairy products	51.100	51.800	52.500	51.300	51.350
Cereal product	12.800	13.100	13.200	13.400	13.450
Confectionary	156.600	161.100	163.600	169.900	169.500
Beverages	42.500	40.100	41.200	41.100	41.050
Total (no artisans and tobacco)	376.260	372.270	375.740	380.790	380.100
Total	511.170	509.980	508.400	518.680	518.080

TABLE 32-NUMBER OF EMPLOYEES IN FRENCH FOOD AND DRINK SUB-SECTOR

SOURCE: AGRICULTURE.GOUV

In France in 2011, the total number of enterprises in the food and beverage sector were 85.189 and the total number of employees reached 508.400 people. Of these 508.400, the 33% work in the micro enterprises, 15,5% in the small firms, 19,5% in the big and 32,1% in the large (INSEE data).

Analysing data of the Ministère de l'agriculture, de l'agroalimentaire et de la forêt ('Panorama des industries agroalimentaires 2012'; 'Panorama des industries agroalimentaires 2014'), it is possible to notice a dramatic decrease in the number of enterprises from 2009 to 2011, due to the dramatic economic situation not only in France, but also in the rest of the world, which limited in this way the possibility to export. From 2012 the situation is getting better, thanks to the economic helps given by the government and thanks to the better economic situation outside Europe.

	2009	2010	2011	2012	2013
Number of recorded firms	82.790	82.543	80.997	85.189	85.580

TABLE 33- STRUCTURE OF FRENCH FOOD AND BEVERAGE COMPANIES

SOURCE: MINISTERE DE L'AGRICULTURE, DE L'AGROALIMENTAIRE ET DE LA FORET

In 2009, in the world food and drink ranking, some French companies reached good positions; Danone was classified at 10th position, and Lactalis group in 20th position. In the European ranking instead, Danone was in 4th position, Lactalis in 8th, Pernord Richard in 12th and Bigard group in 17th. In some specific sectors the French companies obtained good results; in the dairy products, Lactalis and Danone reached respectively the 2nd and 3rd position in the

world sub sector ranking, while Pernord Ricard had the 2nd best result in the wines and spirits sector.

In 2012, in the same world food and drink sector ranking, Danone obtained the 13<sup>th</sup> position, Lactalis the 15<sup>th</sup> and Pernord Ricard the 43<sup>rd</sup>. In the European ranking Danone was in 3<sup>rd</sup> position, Lactalis in 5<sup>th</sup> and Pernord Ricard in 12<sup>th</sup> (Deloitte –les champions industrielle de produits de consummation).

Over these last years French companies have been able to react to the crisis and to maintain their position in the world and in Europe. As it is possible to see from the table, the companies with the highest turnover, both in 2009 and in 2012, were Danone, which registered an increase of the result of +39%; Lactalis group, which registered a +84% in the turnover, and Pernord Ricard with a +16%. These positive results have been possible thanks to the numerous mergers and acquisitions activities that are increasing in number in the last years. Companies understood that in order to survive is better to create big multinational enterprises, which have advantages in the R&I activities, in the exports activities and in the brand recognition by the clients.

	Turnover	Main products		Turnover	Main products
	2009			2012	
Danone	14.982	Dairy products	Danone	20.869	Dairy products
Lactalis group	8.500	Dairy products	Lactalis group	15.700	Dairy products
Pernord Ricard	7.081	Wines and spirit	Pernord Ricard	8.215	Wines and spirit
Bigard group	4.200	Processed meat	Tereos	5.037	Sugar, alchool
Terrena group	3.500	Meat	Terrena group	4.478	Meat
Bongrain	3.280	Cheese, butter	Bigard group	4.400	Processed meat
LDC	2.565	Chicken	Sodiaal union	4.360	Dairy products
Fromagerie Bel	2.221	Cheese	Moet Hennessy	4.137	Wines and spirit
Agrial	2.171	Cereals, meat	Bongrain	4.084	Cheese, butter
Sodiaal group	1.300	Dairy products	Soufflet group	4.001	Cereals products

TABLE 34- 10 MOST IMPORTANT COMPANIES PER TURNOVER FRENCH FOOD AND DRINK SECTOR

SOURCES: COMPANIES' REPORTS

## **PUBLIC POLICIES:**

Although the agrifood sector was less affected by the 2008 crisis compared to other sectors, the sector nevertheless suffered from strong international competition and a lack of competitiveness. The measures introduced by the Responsibility and Solidarity Pact provided a solution to the diversity of the sector, which, as it is highlighted before, includes both international champions and very small or medium enterprises. The Responsibility and Solidarity Pact had as main objectives the acceleration of the job creation and the increase of the households' purchasing power. The Pact completed the CICE in order to decrease the job cost and the firms' tax level. Thanks to the reductions in social contributions have been encouraged strategies aimed at growth, job creation, investment, modernisation or innovation, export market share gains or resistance to competition. The sector was characterised by more than 500.000 employees and the 78% of the sector wage bill was impacted by the tax credit to encourage competitiveness and employment. In total the impact of the various measures resulted in additional reductions in social contributions amounting to 431 million € in 2014. In the scope of Responsibility and Solidarity Pact it has been established an employment monitoring committee in the agricultural and agrifood sectors to monitor the implementation of mutual commitments and the performance of the agreements signed in these sectors since 2012 (Gouvernment.fr (2014), 'Competitiveness in the agrifood sector'; Agriculture.gouv.fr (2014), 'Pacte responsabilité solidarité agriculture agroalimentaire'). The agricultural and agrifood sector benefited also of a special budget of 120 million € in the form of subsidies during the period 2015-2017 to encourage technological innovation and investment forming part of the future strategies of the sectors. The Government sustained the sector in the field of export, through the finalisation of the digitalisation of export certification procedures, and the streamlining of export assistance. In 2013, the Government has also implemented a special mechanism aimed at providing individualised long term support with exports to small medium enterprises, through export development loans under very advantages conditions. This initiative has already helped 120 enterprises (Agriculture.gouv.fr (2015), 'L'agriculture et l'agroalimentaire au cœur de la politique pour la croissance et l'emploi').

In 2013 BPI France defined 161 million € of bank financing to 173 enterprises in the agrifood sector, and this let the mobilisation of 514 million € of financing for these enterprises. The bank loans given to agrifood sectors by BPI France increased of 28% from 2012 to 2013. BPI France could intervene in the equity financing by directly participating in the enterprises

capital, or by participating as direct partner in capital fund, or by managing or financing 15 funds which invest in some investment funds. (bpifrance.fr (2014), 'Les actions de Bpifrance dans le secteur agroalimentaire').

## 3.3 ITALIAN AUTOMOBILE SECTOR

The automobile sector in Italy, as well as in many other countries, have been hit hard. This sector shows the wellness of an economy, because it is an important and fundamental sector, and Italy registered a dramatic drop in the sales and matriculation from 2007.

In the table are reported data from UNRAE BOOK, and it is possible to notice the evolution of the number of registered vehicles from 2007 to 2014.

	Cars	Trucks	Industrial vehicles	Camping cars	Caravans
2007	2.493.815	243.828	40.081	14.473	2.927
2008	2.162.231	223.477	37.624	12.348	2.952
2009	2.159.310	177.984	20.671	8.733	2.143
2010	1.961.559	181.630	22.105	7.743	1.860
2011	1.749.095	170.755	22.322	7.184	1.741
2012	1.402.848	116.668	15.835	5.031	1.500
2013	1.304.445	110.500	15.400	4.035	999
2014	1.359.514	111.000	14.900	3.456	878

TABLE 35- EVOLUTION NUMBER OF ENROLLED AUTO VEHICLES IN ITALY

SOURCE: UNRAE BOOK 2014

The number of enrolled cars since 2007 is decreasing; in the year 2008 it has been registered a -13,3%, in 2011 a -10,8% and in 2012 a -19,8%. In 2014 a weak signal of recovering can be noticed with an increase of +4,2%. The level reached brings the car market back in the year 1979, when the total number of enrolled cars were 1.397.039. Also all the other vehicles types registered bad results since 2007; trucks (<= 3,5 tons) recorded a -54,4 %, industrial vehicles (>3,5 tons) a -62,7%, camping cars -76,1% and the caravans a -70%.

In particular the cars with regular gas saw a substantially decrease in sales due to the increase of the petrol price, in 2011 there were 683.997 regular gas cars enrolled, in 2014 there were 393.830, registering a drop of -42,4%, getting a total market of 29% in 2014. The diesel-powered cars instead are quite stable: in 2011 there were 965.489 enrolled cars, while in 2014 there were 746.667, with a total market of 54,9%. Especially in the last years it is possible to notice an increase in the sales of LP gas, natural gas, hybrid and electric cars, respectively they reached a share of 9,2%, 5,3%, 1,6% and 0,08% in 2014 (Canali, 2014).

In the following table are reported the data from ANFIA.it (Studi e statistiche) about the domestic Italian production of passengers auto, trucks, buses and motorhomes. Passengers cars registered a decrease from 2007 to 2012 of -57,3% in cars production, but in 2014 they

get a positive result with an increase from the previous year of +3,3%. On the contrary the production of buses, trucks and motorhomes suffered a dramatic decrease in the year 2009 with a total domestic production which reached the values 1.004, 181.135, 7.432 respectively, after that year the situation of trucks and motorhomes is getting better with a slight improvement in the production, while the buses are registering always lower value.

	Passengers cars	Trucks	Buses	Motorhomes
2007	910.860	372.003	1.449	23.581
2008	659.221	363.209	1.344	17.164
2009	661.100	181.135	1.004	7.432
2010	573.169	263.952	1.065	13.442
2011	485.606	303.919	823	12.658
2012	396.817	274.462	489	9.333
2013	388.465	269.321	421	9000
2014	401.317	296.258	289	8550

TABLE 36- ITALIAN PRODUCTION AUTOMOTIVE SECTOR

SOURCE: ANFIA

Another important data to consider is the numbers of cars in circulation, here in the table are reported the values.

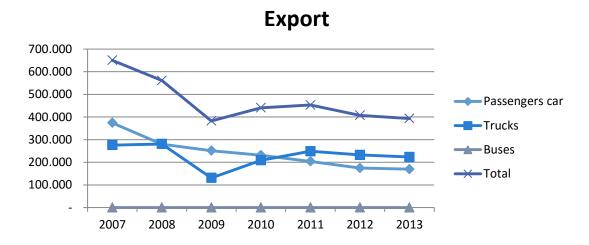
	Passenger cars	Trucks	Buses	Total
2007	35.680.097	4.591.550	96.419	40.368.066
2008	36.105.183	4.691.711	97.597	40.894.491
2009	36.371.790	4.742.017	98.724	41.212.531
2010	36.751.311	4.798.671	99.895	41.649.877
2011	37.113.300	4.853.340	100.438	42.067.078
2012	37.078.274	4.822.175	99.537	41.999.986
2013	36.962.934	4.768.449	98.551	41.829.934

TABLE 37- NUMBER OF CARS, TRUCKS AND BUSES IN CIRCULATION IN ITALY

SOURCE: ANFIA

From these data it is possible to notice that the number of passengers cars registered a decrease in value in the year 2013, so not only the number of new enrolled cars is decreasing, but also the total number of cars in circulation and this can lead to a permanent contraction of the demand. Possible causes are the impoverishment of the middle class, who saw a contraction of the available earnings; the longer life of the cars which in 2014 reached 9,5 years and the fact that the yearly average distance covered is decreasing in the last years, due to the fact that cars are used less. On the contrary trucks and buses registered an increase in the number of means of transport in circulation, the first recorded a +3,8% while buses a +2,2% from 2007 to 2013.

As far as concern the export of Italian companies to the rest of the world, in the following graph are reported the values of cars, trucks and buses. Since 2007 in Italy it has been registered a drop in the export of the investment goods and the automotive sector is one of these. As it is possible to notice the passengers cars registered a reduction in the export value from 2007 of -54,6%; also the export of buses recorded a decrease of -48,9%; on the contrary the trucks export, after a dramatic decrease during 2009, it increased again reaching the value of 2007.

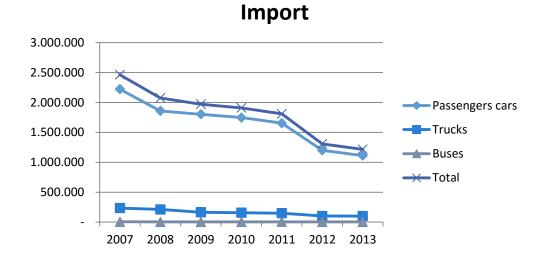


GRAPHIC 31- ITALIAN AUTOMOTIVE SECTOR EXPORT PER YEAR

SOURCE: ANFIA

In 2009 the countries toward which Italy mostly exported were Germany with 64.839 cars, France with 43.968, England with 23.001 and Poland with 16.804. In 2014 France became the first importer with 26.049 cars, followed by England with 18.613 and Germany with 18.413. In the last years are increasing the export in East countries like China and Japan which recorded an increase of imported cars from 2007 of 769% and 233% respectively.

Considering instead import data, which are reported in the following graph, for all the analysed products have been registered a dramatic decrease of the imported means of transport. In particular the passengers cars registered a -49,9%, the trucks a -57,7% and buses a -48%. This has been caused by a decrease in the families' income which started to require lower cars and a general slowdown of the economy with the consequence of a lower demand of buses and trucks for the commerce.



GRAPHIC 32- ITALIAN AUTOMOTIVE SECTOR IMPORT PER YEAR

SOURCE: ANFIA

In order to analyse the sector is important to take into consideration the structure of it, in the following table are reported data from ISTAT (Dati.istat) about the total number of firms in the automotive sector, the total number of employees and the average dimension of the firms.

	2007	2008	2009	2010	2011
Number of firms	77	85	106	114	120
Employees	68.658	68.556	68.448	69.888	63.808
Average dimension	891,7	806,5	645,7	613,1	531,7

TABLE 38- NUMBER OF FIRMS, EMPLOYEES, AVERAGE DIMENSION OF ITALIAN AUTOMOTIVE SECTOR

SOURCE: ISTAT

The number of firms is increasing in value since 2007, and as it is possible to notice from the table below, the number of small enterprises with less than 10 employees raised of +11% from 2007 to 2011, while all the other companies dimension recorded a reduction. The very big enterprises, which are the fewer one, have been quite stable during the years of the crisis registering a -11% from 2007.

	2007	2008	2009	2010	2011
0-9	48,9	46,4	49,1	52,4	54,3
10-19	17,8	19,9	20,1	19	17,4
20-49	16,1	17,1	15	14,3	14,3
50-249	12,5	12	11,4	10,3	10
+250	4,6	4,6	4,4	4	4

TABLE 39- % NUMBER OF COMPANIES AUTOMOBILE SECTOR PER DIMENSION IN ITALY

#### SOURCE: ISTAT

As it is quoted in the table 38, the total number of employees, after an increase in the year  $2010 \ (+2,1\%)$ , recorded a drop in the year  $2011 \ of -7\%$  from 2007. The very big enterprises  $(+250 \ employees)$  were the one with the highest number of employees, in  $2007 \ they$  gave work to the 72% of the total workforce of the sector and they registered an increase, reaching in  $2011 \ the 72,9\%$ . The very small enterprises (<10), which are the most widespread in Italy, in  $2011 \ gave$  work only to the 2,6% of the sector workers and recorded an increase from the year pre-crisis of +18,8%.

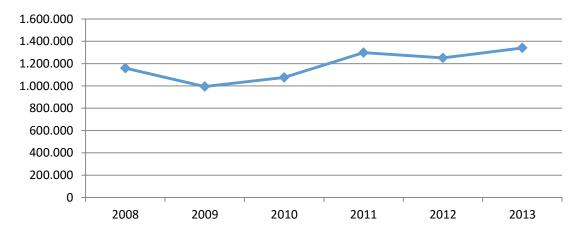
	2007	2008	2009	2010	2011
0-9	2,2	2,1	2,4	2,7	2,6
10-19	3,1	3,3	3,5	3,5	3,3
20-49	6,3	6,7	6,1	6,2	6,4
50-249	16,5	15,7	15,6	14,8	14,8
+250	72	72,1	72,3	72,9	72,9

TABLE 40- % NUMBER OF EMPLOYEES PER COMPANY DIMENSION IN ITALY

SOURCE: ISTAT

The automotive sector is a sector characterised by high investment expenses in R&D, in order to deliver to the clients the best product in term of sustainability, security and design. In the following table are reported data of ISTAT ('L'evoluzione dell'economia italiana. Aspetti macroeconomici') about the R&D expenses of the whole sector.

## **R&D** investment



GRAPHIC 33- EVOLUTION OF R&D EXPENSES OF ITALIAN AUTOMOTIVE SECTOR

SOURCE: ISTAT

It is possible to notice two drops of investment in R&D in the years which correspond to the two recessions; the first has been recorded in 2009 with a reduction of -14%, while the second registered a less rapid decrease with a -3,5%. These expenses, even if have been decreased during the latest years by some companies as Fiat, as a strategic decision to try to restart again after crisis, have been always seen as fundamental in order to sell and gain market.

The most important car producer in Italy is Fiat and Chrysler Group, this union was became effective the January 1, 2011 after two years of trading. The group includes: Alfa Romeo, Chrysler, Dodge, Fiat, Fiat Professional, Jeep, Lancia, Ram truck, Abarth, Ferrari, Maserati.

In the production of trucks and buses, Iveco is the Italian company, 100% controlled by CNH Industrial, US-Italian society established in 2013 with the merger of CNH Global and Fiat Industrial; Iveco Bus is the sub-brand specialised in the production of buses.

The most important Italian companies in the production of caravan and motorhomes are: Elnagh, Laika, Mobilvetta and Rimor.

In the table are reported the ten most important groups in the automobile sector in the world, analysing the total production. Fiat was classified in 2007 at  $9^{th}$  position with the total production of 2.679 million of vehicles, in 2013, after the merger with Chrysler, their production is doubled, reaching the 4.682 million units and getting the  $7^{th}$  position in the world classification.

	2007		2013
	Total production		Total production
Toyota-Daihatsu	9.498	Toyota-Daihatsu	10.325
General Motors	9.350	General Motors	9.629
Volkswagen group	6.268	Volkswagen group	9.603
Ford (Jaguar, Volvo)	6.248	Hyundai-Kia	7.233
Hyundai-Kia	3.987	Ford	6.077
Honda	3.912	Nissan	4.951
PSA Peugeot Citroen	3.457	Fiat-Chrysler	4.682
Nissan	3.431	Honda	4.298
Fiat-Iveco-Irisbus	2.679	Suzuki-Maruti	2.842

Renault	2.669	PSA Peugeot	2.834
		Citroen	

TABLE 41- TEN MOST IMPORTANT CAR PRODUCER IN THE WORLD (IN MILLION)

SOURCE: CCFA

## **PUBLIC POLICIES:**

The Italian government intervened in a weak way to sustain the automobile sector, due to the low resources and the difficult situation it was facing. Mainly two actions were realized (Agenzia delle entrate, 'Agevolazione per l'acquisto del veicolo):

- In the period between February 2009 and December 2009, the Government defined incentives for people who scrapped their cars and would buy a new one (Euro 4,5).
   The sum was 1.500 €. It was also valid for scrapped and purchase of industrial vehicles and trucks and moto (Desiderio, 2014).
- In 2012 a decree (BEC), which defined incentives for the purchase of cars, has been accepted and the total cost was 120 million €. This incentive was given to people who scrapped their cars for a new ecologic cars (methane, electric, hybrid) and the maximum given was 5.000 € (Bec.mise.gouv.it).
- In 2014 incentives for the purchase of ecologic cars have been allocated. The
  Government defined 63,5 million € and the contribution varied according to the type of
  the vehicle and the maximum was 5.000 € (Panorama auto (2014), 'Incentivi 2014, dal
  6 maggio fino a 5.000 euro di bonus').

## 3.4 FRENCH AUTOMOBILE SECTOR

The automobile sector is the fifth manufacturing industry in term of value added and in the last years, as the great part of sectors, performed worsen due to the crisis. This is a relevant sector in France for the whole economy, with the presence of two very important companies, Renault and PSA Peugeot Citroen, between the first ten in the world. The fall of the internal demand and the difficulties in obtaining loans worsened the situation, the car French market fell of -40% from 2007, while the emergent countries continued to increase and growth, and as a result the exports of French enterprises increased (Marouane, 2009).

In the table it is possible to analyse the number of enrolled vehicles in France taken from C.C.F.A. France. The market registered a decreased in the matriculations from 2010 to 2013, only in the year 2014 it is possible to notice a better result. In the first years of the crisis, the market reacted pretty well thanks to the incentives and the policies put in place by the government to sustain the sector.

	Cars	Trucks	Industial vehicles	Camping car	Caravans
2007	2.044.543	461.462	58.030	22.720	12.221
2008	2.050.283	460.273	63.159	22.199	11.158
2009	2.268.671	373.986	42.197	18.242	10.472
2010	2.251.660	417.612	39.603	18.800	10.175
2011	2.204.229	429.254	53.569	18.956	9.957
2012	1.898.760	384.049	48.922	17.873	9.793
2013	1.790.456	367.331	49.586	16.436	7.771
2014	1.795.885	372.074	42.968	16.222	7.582

TABLE 42- EVOLUTION ENROLLED VEHICLES IN FRANCE

SOURCE: CCFA FRANCE

French cars sector recorded a reduction in the number of matriculation of -12,1% from 2007, this is an average result in Europe, and it is much better than Italy, which recorded a -48%. This data is aligned with the decrease of the use of cars and the increase of the life of cars; the part of the vehicles which is daily used moved from 79% in the 2000 to 71% in 2013, and the average age of automobile moved from 7,3 in 2000 to 8 in 2013 (C.C.F.A..fr).

In the last years is also modifying the type of bought cars, in particular the sales of diesel, electric and hybrid cars are increasing in France. In the table are reported the data of the enrolled cars of these types in the last years. Since 2002 the matriculation of diesel cars have been higher than other types, in 2013 they represented the 67% of the market, and they

recorded a low decrease considering the previous years, caused by the introduction of the three-cylinder petrol engine. France is placed in the second position in the worldwide market of diesel cars with 1,2 billion of enrolled cars. An important boost has been registered by the hybrid and electric cars which reached in 2013 the 2,6% and the 0,5% of the total market, respectively. In 2013 the matriculation of hybrid cars achieved the 46.700 enrolled cars, an increase of 68% compared to the previous year, while the electric cars increased of 55%, getting 8.800 units.

	Diesel	Electric	Hybrid
2008	1.498.898	4	8.478
2009	1.574.678	12	9.876
2010	1.593.153	184	9.655
2011	1.596.155	2.630	13.641
2012	1.384.544	5.663	27.889
2013	1.199.729	8.779	46.745

TABLE 43- ENROLLED DIESEL, ELECTRIC AND HYBRID CARS IN FRANCE

SOURCE: CCFA

Considering the production of the sector in France, in the table are reported the data, divided per cars & caravan and trucks & buses. As it is possible to notice, the production registered a decrease in the year 2009, after that two positive years occurred both for cars and trucks, but again in the years 2012 and 2013 the results get worsen, only in 2014 the sector increased the production again, thanks to the better economic situation in France and in Europe. From 2008 the production of cars and caravans registered a decrease of -31%, while the one of trucks and buses a -33%, here the reduction has been less dramatic than in Italy, which recorded a -57,3% in the car production from 2007 to 2013.

	Cars & caravans	Trucks & buses
2008	2.145.935	423.043
2009	1.819.497	228.196
2010	1.924.171	305.250
2011	1.931.030	311.898
2012	1.682.814	284.951
2013	1.460.000	280.000
2014	1.465.000	280.885

TABLE 44- VEHICLES FRENCH PRODUCTION

SOURCE: INSEE, CCFA

Considering the total production, the part of French constructors (PSA Peugeot Citroen and Renault) is reported in the table below:

	PSA Peugeot Citroen	Renault
2008	1.228.778	529.001
2009	1.061.175	428.328
2010	1.190.612	475.185
2011	1.324.110	646.319
2012	1.114.104	532.571
2013	939.483	506.006
2014	969.698	533.108

TABLE 45- FRENCH CONSTRUCTORS PRODUCTION IN FRANCE

SOURCE: CCFA

As it is possible to notice the French constructors represented the biggest part of the total production in France, the PSA Peugeot Citroen group registered a total decrease of -21% from 2008, and after a positive result in the years 2010 and 2011, they decreased their production level; on the contrary Renault from 2008 got a +0.7%, bringing the situation at the pre-crisis level. This was an important result for the employment situation in France and for the whole economy, because it positively influenced the economic results.

Considering the relations of the French market with the rest of the world, in the graphs are reported import and export data for cars, trucks and industrial vehicles, taken from C.C.F.A.fr (2012) and INSEE ('industrie automobile'). As far as concern the export, cars export registered a dramatic decrease in the year 2009, caused by the spread of the financial and economic crisis which affected the automobile demand all over the world. After an improvement in the subsequent two years (2010, 2011), in 2012 and 2013 the market get worse again due to the European crisis. From 2007 the cars export recorded a decrease of -39,1%, caused by both the lower demand and the lower production in France. Considering instead trucks and industrial vehicles the exports has been quite stable, the first registered a -14,1% while the second a -34,2% from 2007 to 2013. The automobile sector export is one of the three most exported products with the food and beverage sector and the aeronautic one. In 2007 the export of the automobile sector represented the 13,2% of the total export of the country, in 2013 they were the 9,5%.

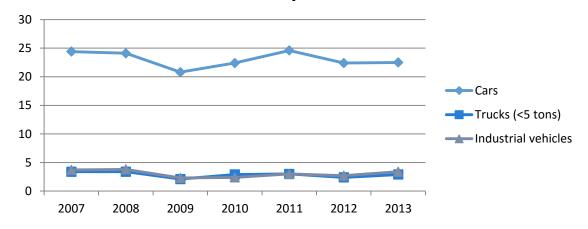
## 

GRAPHIC 34- FRENCH AUTOMOBILE SECTOR EXPORT (IN BILLION €)

SOURCE: CCFA, INSEE

Analysing the import of cars, in 2009 they fell in a less dramatic way, compared to the export, registering a -13,5% from 2008. In 2009 it has been recorded the lowest result in the last years with a total import value of 20,8 billion €. After that years, the imports of cars at lower cost coming from Asia increased and thanks to the subsidies put in place by the government, the internal demand grew. In 2012 the market fell again caused by the European and French economic situation which worsened, but in 2013 a +0,2% was recorded, and it was in line with the economic recovery of the country. As for the export the demand of trucks and industrial vehicles stayed quite stable registering from 2007 to 2013 a -14,7% for the first and a -8,1% for the second. In 2007 the import of automobile sector, compared to the total imports in France, weighted 11,2%, while in 2012 9%, underlying the decrease of the total internal market demand of foreign products.

## **Import**



GRAPHIC 35- FRENCH AUTOMOBILE SECTOR IMPORT (IN BILLION €)

SOURCE: CCFA. INSEE

Since 2007 the balance of import export for the automobile sector has been negative; considering cars, the deficit of the balance substantially increased from 2007 to 2013 caused by the more rapid increase of the import of cars coming from Asia and Germany than the increase of the export, due also to the slowdown of the internal production. Considering instead trucks, after an increase of the deficit in the central years of the crisis, it is possible to notice a contraction of the deficit in 2012 and 2013 due to a more important decrease of the import than of the export. Concluding, the industrial vehicles recorded a dramatic increase of the deficit due to a boost in the import more important than the export, caused by the lower and weaker internal production (Bechler, Bruno, Marie, 2014).

	2007	2008	2009	2010	2011	2012	2013
Cars	-2,7	-6	-7,2	-7,1	-8,6	-7,5	-9,3
Trucks	-0,6	-1	-0,7	-1,2	-0,9	-0,3	-0,4
Industrial	-0,2	-0,1	-0,5	-0,1	-0,5	-0,4	-1,1
vehicles							

TABLE 46- BALANCE EXTERNAL MARKET FRENCH AUTOMOBILE SECTOR

SOURCE: INSEE

The total number of companies in the automobile sector is reported in the table below, in this classification are counted all firms which produce cars, trucks, industrial vehicles, components of cars (electric materials and seats). These data come from the ESANE investigation of firms (2014) and are reported also employment data in the sector. For the year 2012 and 2013 it is possible to notice an increase in the number of firms due to a difference classification of the vehicles equipment enterprises. The total number of

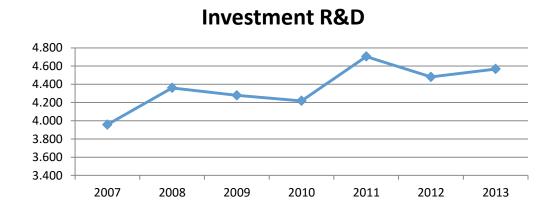
employees, on the contrary, substantially decreased from 2007 to 2013, recorded a -27%; one cause can be the closure of a number of big facilities of multinational enterprises as PSA Peugeot Citroen or Renaud.

	2007	2008	2009	2010	2011	2012	2013
Number of	685	653	565	639	616	714	703
firms (>20							
employees)							
Employees	74.340	73.210	64.881	61.759	59.579	55.470	53.650

TABLE 47- TOTAL NUMBER OF FIRMS AND EMPLOYEES IN THE FRENCH AUTOMOBILE SECTOR

SOURCE: ESANE

The expenses in research and development of this sector is the highest between all the industries in France, before the pharmaceutical sector and the aeronautic one. The crisis caused a decrease of the investments in 2009, but it has been not so significant (-2%) reaching the value 4.279 million €. After that period, in 2011, a boost in the investment has been registered +9,9% but again it decreased in 2012, due to the worse situation of the market. The researches in this sector are fundamental because it is necessary to ensure the reliability of the vehicles along the all lifecycle, ensure the security of the users and preserve the environment.



GRAPHIC 36- R&D INVESTMENT IN THE FRENCH AUTOMOBILE SECTOR

SOURCES: ESANE

This sector needs a huge sums of investments, from the production plants to the R&D to develop the products which respect both safety and environment, and this aspect weighted a lot during the recession period. In order to face this problem the government defined some instruments for the long term financing (Fonds Stratégique d'Investissement, 2008, and Fonds de Modernisation des Equipementiers Automobiles, 2009) and the capacity of R&D (Crédit

d'Impot Recherche et l'Investissement d'Avenir). Since its foundation, Fonds Stratégique d'Investissement invested in three enterprises of automobile sector, while Fonds de Modernisation des Equipementiers Automobiles invested 329 million € in 16 equipment enterprises. Moreover l'Investissement d'Avenir, founded in 2009, has as objectives the increase of the productivity and the grow of the competitiveness of French enterprises. The sector also benefits from the Crédit d'Impot Recherche (CIR) delivered by the Government to the enterprises, and the automobile sector receives 354 million €.

The automobile sector, to face the crisis of the last years, built and defined a well structure supply chain. "La Platforme de la Filière Automobile" (pfa-auto.fr)) has been established in 2009 by all the manufacturers and suppliers in order to increase the efficiency of the supply chain. The crisis affected the whole structure of the sector, weakening it, and in order to face these problems PFA defined four priorities: lean manufacturing, competencies and craft of the future, a better management of the communication and the definition of the medium and long term strategies of the manufacturers and of the suppliers. In October 2012 a supply chain contract has been signed and it defined four main working axes: a common vision of the supply chain to forecast the economic changes, innovation and R&D, the solidarity of the supply chain and the internationalisation of the actors.

The French car producers, PSA Peugeot Citroen and Renault, are two of the most important car producers in the world. In 2007 they were in the top ten, with PSA placed at 7<sup>th</sup> position with a total production of 3.457 million cars and Renault in 10<sup>th</sup> position with 2.669 million of units. Due to the difficult economic situation, especially in Europe they saw a decrease in their production level, and in 2013 PSA was ranked at 10<sup>th</sup> position with a production of 2.834 million of cars while Renault was place 11<sup>th</sup>. The production of French producers in the world weighted 8% in 2007 while in 2013 they saw a decrease in their presence, reaching the 6%.

	2007		2013
	Total production		Total production
Toyota-Daihatsu 9.498		Toyota-Daihatsu	10.325
<b>General Motors</b>	9.350	General Motors	9.629
Volkswagen group	6.268	Volkswagen group	9.603
Ford (Jaguar, Volvo)	6.248	Hyundai-Kia	7.233
Hyundai-Kia	3.987	Ford	6.077

Honda	3.912	Nissan	4.951
PSA Peugeot Citroen	3.457	Fiat-Chrysler	4.682
Nissan	3.431	Honda	4.298
Fiat-Iveco-Irisbus	2.679	Suzuki-Maruti	2.842
Renault	2.669	PSA Peugeot	2.834
		Citroen	

TABLE 48- TEN MOST IMPORTANT CAR COMPANIES IN THE WORLD (IN MILLION UNITS)

SOURCE: CCFA

#### **PUBLIC POLICIES:**

To help the automobile sector, the government defined some actions, since the beginning of the crisis:

- "Prime à la casse": it has been established in December 2008, until December 2010. It was intended for people who had cars aged more than 10 years, who wanted to buy a new car. The sum was 1.000 € at the beginning, but then it became 750 in January 2010, and then 500€. The cost of the measure has been 1 billion € and when it ended the purchase of cars fell down (Leclerc, 2010).
- "Bonus malus": this measure, defined in 2008, has been set to increase the purchases of less pollutant cars. The sum was between 600 and 400 €, varying according to the type of the car. This measure represented a cost for the Government of 2,3 billion € (D'Haultfœuille, Givord, Boutin, 2013).
- "Pacte automobile": The Government, in 2008, granted a subsidize loan to the two big
  French companies, of 3 billion € to each, in order to not close the production plants in
  France. The two groups repaid the loans in 2011 (Economie.gouv.fr (2011), 'Rappel
  des mesures du « Pacte automobile de première génération»').

# 4. CASE STUDIES - Data and information collection-

## 4.1 MY HYPOTHESIS AND THE THEORY BEHIND

After the descriptive part in which I studied the evolution of the market, industrial and sectorial conditions in France and Italy, I analysed some specific firms which are for the food and drink sector Danone and Parmalat Group, and for the automobile sector Fiat and PSA Peugeot Citroen. I chose these companies because, considering the food and drink sector, in France, Danone is the largest dairy producer and it is an international enterprise with a worldwide presence and it is responsible of the largest turnover in the sector; in Italy instead I decided to consider Parmalat, first of all because it is a dairy producer, as Danone, with a smaller dimension than the French company and secondly because it more represents the structure of the Italian industry, composed by more small medium enterprises. Considering instead, the automotive sector, in Italy, Fiat Group is the only big reality that is possible to analyse and which has an international structure, interesting to study; in France the two biggest companies are PSA Peugeot Citroen and Renault, but considering the dimensions and the level of turnover and production, I decided to consider PSA Peugeot Citroen.

I carried out the analysis of the companies by matching different sources of information. First of all I chose all companies with an available online Annual Report, in order to have all the main information and data; moreover I analysed some articles and papers which spoke about the companies' results and evolution during the years. In order to have a more complete view of the situation, I also contacted some employees, considering also their availability, of Fiat, Trigano and Bolton Solitaire, which I interviewed even if I didn't analyse them (Trigano and Bolton Solitaire) in the report. My initial idea was to interview all the companies, but I found it very difficult, even if I had got confidential and reliable contacts inside the firms.

Analysing these companies, my questions considering the single company analysis were:

- 1. Which was the initial situation of the company, before the crisis?
- 2. Which strategies have been adopted by the companies?
- 3. Which have been the results and performances after the implementation of the strategies, considering also the situation of the market?

So after having collected all data, I decided to structure the case studies by analysing, for each company: the history, revenues and sales, group's strategy, retrenchment strategies, investment strategies and the results. In the results section I analysed the most important indicators, considering three main categories: profitability indicators, liquidity indicators and margin indicators. For the profitability indicators, which evaluate the capacity of the company to remunerate all the factors of production and the investors, I analysed ROE, ROI and ROS; about the liquidity indicators, which represent the ability of the company to cope with the economic commitments, I chose to analyse the current ratio, the quick ratio and the indebtedness level, because this financial crisis has been also a debt crisis, and during this period the access to the credit has been more difficult and companies suffered a lot; concluding considering the margin analysis, I took into consideration the treasury margin, the structure margin and the net working capital, in order to have also an absolute value of the ability of the companies to pay short term debt.

After having analysed the single companies, the following step is a more comprehensive and complex analysis, matching the results in order to understand relationships, similarities or differences between the companies. The questions to whom I would like to reach an answer are:

- 1. Did the companies in the same sector react in the same way?
- 2. Which are the differences or similarities between the reactions of the companies in the same sector and between the two different sectors?
- 3. Is it possible to identify some common trends in the market, which influenced the reactions and the results of the companies?
- 4. Which have been the fundamental characteristics or decisions which allowed the companies to survive?

The answers to these questions are defined in the conclusions part, after having matched the case studies analysis and the first part analysis with the considerations of the crisis, the industry structure and the sectors characteristics.

Before starting the case studies, it is important to highlight the hypotheses that I identified before the analysis of the companies:

1. The first hypothesis concerns the general results of the companies in the two different sectors. I expect that the companies in the food and drink sector, Danone and Parmalat,

- recorded better results than the companies in the automobile sector, Fiat and PSA Peugeot Citroen, due to the general characteristics of the businesses under analysis, identified in the *chapter 3*. The differences are mainly due to the general features of the two products, and consequently the correspondent markets beyond these products are completely different.
- 2. The second expectation and hypothesis concerns the countries. After having analysed the general characteristics of the countries, the corresponded effects of the crisis and the public policies put in practice by the governments, I expect that the companies in France got better results than the companies in Italy. France in fact obtained better results in terms of GDP and growth than Italy and the public policies defined by the Government have been much more structured than the Italian ones.
- 3. The third hypothesis results from the literature analysis, which have been the analysis of Rapporto di Competitività, drafted by ISTAT, the analysis of Rapporto Met 2015, drafted by Raffaele Brancati and other papers and articles founded on the web. I expect that the companies which increased their internationalisation and the R&D expenses reacted better to the crisis. This is due to the always higher importance of these two strategic decisions in the overcoming of the recession period, mainly caused by the difficult economic situations in the countries of origin (Italy and France) and by the always higher competitions and higher rate of innovation which characterised a big number of sectors.
- 4. Considering the indexes which I chose to analyse, I expect that the profitability indicators, ROE, ROI and ROS, recorded a reduction in the level of Net Income and Operating Income in the central years of the crisis, due to the dramatic decrease of the demand, which should be especially visible in the automobile sector for the general characteristics of the product. Considering instead the liquidity indicators I expect that from 2008 to 2010, due to the credit crunch, the debt structure of the companies changed towards a more stable one, in general, by decreasing the short term debt and increasing the long term financing sources (equity and long term debt). In order to analyse this aspect I took into consideration both the ratio and the absolute indicator, in this way it should be easier to understand the extent and the impact on the debt structure of the companies.

In order to identify the strategic decisions implemented by the companies I read some studies about this argument. The most important studies which I took into consideration have been

the 'Rapporto Competitività 2013' and 'Rapporto competitività 2014' published by ISTAT, 'Rapporto Corporate EFIGE 2011' drafted by Unicredit, 'Rapporto MET 2015' edited by Raffaele Brancati and 'Competitive Report: Italy' of the European Commission. In 'Rapporto competitività' 2014 and 2015, through a survey have been analysed the strategic decisions put in place by the companies in order to improve the competitiveness in the foreign market, and the main decisions identified have been: the increase of foreign suppliers; the decrease of the sales price; the improvement of the offered services and the improvement of the products characteristics and quality. The Report identified as vital the improvement of the export level and it focused its analysis on this aspect. The 'Rapporto Corporate EFIGE 2011' analysed different aspects related to the structure of the companies in Italy and analysed how the firms modified the export level and the R&D expenses in response to the crisis. Also 'Rapporto MET 2015', through a survey, analysed the investment strategies implemented by the companies in order to improve the situation from 2008 to 2010; the most important decisions implemented by the companies in order to grow have been the increase of the level of internationalisation and the increase of the R&D in order to be more competitive in the market. Not all the companies have been able to implement these two strategies because they required a certain level of investment and dimension of the firms; due to the fact that Italy is mainly characterised by firms of small-medium dimension, which have no sufficient resources and possibility to go in the international market or to increase the innovation expense, Italy suffered and it is suffering more than other countries to go out recession and grow again. In all these studies are not highlighted the relations between the strategic decisions implemented and the performance of the companies, and this is what, through my research, I would like to show. Moreover I didn't find studies like this ones in France, and I hadn't the possibility to compare the two countries, considering a more general set of answers, given by the companies.

Considering the strategy adopted by the companies, in the contemporary literature, there are two main schools of strategy: the 'positioning school' and the 'resource-based' view (Kitching, 2009). The 'positioning school' popularise by Porter (1980), views the firm as concern achieving the 'strategic fit', with its environment; that is, with evaluating the competitive forces operating in the environment (Porte's five forces) to assess where and how best to compete (Van den Bosch, De Man, 1997). In the 'resource-based' view school, initiated by Penrose (1959) and later development by Rumelt (1984), Wernelfert (1984) and Barney (1991), a firm's competitive advantage lies mainly in the bundle of resources at its disposal

and how it can stretch this to achieve competitive advantage. Recent analysts have enlarge the 'resource-based' view with the concept of 'dynamic capabilities' to refer to the firm's ability to develop and extend resources and competences to adapt to a changing environment (Teece, et al. 1997; Eisenhardt, 2000; Teece, 2007).

Analysing the strategic decisions of companies, it is necessary to consider them in relation with all the factors, which affect the choice. From different articles and studies it is highlighted the relationships between the business strategy and performances, and the resources and capabilities of the company, the owner/manager perceptions of the threats faced and opportunities available, and the wider organisational, market, institutional and cultural contexts. So the decisions implemented are the results of a complex situation and can be affected by different factors. The starting conditions of the firms, the managers' sensitivity to downturn, and the government supports and public policies influences on how firms adapt to recession conditions, and their subsequent performance. Companies can decide to exploit firm's resources or develop or acquire new ones in order to generate new revenues streams. The strategies that can be implemented by the companies can have as objective the increase of the efficiency, by decreasing costs, or the increase of the profitability, finding way to increase revenue. According to the implemented strategy, the performance outcomes vary, and the effects of the strategic decisions affect sales, revenues and market share.

Recession periods are moment with high uncertainty and this uncertainty affects the companies decisions. First of all, during recessions, as definition, the GDP falls and this can decrease the consumer expenditure and confidence, and this can have implications on firm's performances; but at the same time, recession influences assets prices, which are reduced, and this enables resources acquisition (Stijn, Kose, 2011). The effects of the crisis can be multiple and it is not possible to identify a best way to answer to it. The successful strategies depend on a multiple factors, and are context-specific and vary across industrial and geographical characteristics. The choice of the strategic decisions depends first of all on the resources of the firms and secondly it is affected by the network and the competition in the company operates (i.e. in a network in which the level of innovation is very high, the level of R&D should continuously increase). The most important choice of companies is the orientation to the short term or the long term (Chastain 1982, Dean 2009): in period of recession, many companies look only at the immediate future, by cutting costs and investments in order to conserve resources, but this strategy can bring the companies to not

be able to survive when the recession is over. While other firms, usually the ones with more resources and possibilities, decided to invest and grow, having a long term orientation, and positioning themselves in a better position for recovery. Silberston (1982) distinguishes the 'statically efficient' firm, one making the most efficient use of resources in given circumstances, with the 'dynamically efficient' firm, one capable of surviving changing circumstances. Clearly, businesses must be able to be both statically and dynamically efficient if they are to endure. Firms must be able to cut their cloth to survive present conditions while at the same time continue to invest in business development if they are to sustain satisfactory performance beyond the recession.

In order to explain how firms adapt under recession conditions three types of business strategy are distinguished: retrenchment, investment and 'ambidextrous' strategies (Kitching, 2009).

#### RETRENCHMENT STRATEGIES

Retrenchment strategies involve operating costs and divestment of non-core assets. Often in time of recession, managers and owners focus on immediate survival rather than on long term aims. Many businesses choose to retrench, believing it is easier to reduce costs than generate additional revenue. The main actions are divestment of businesses, establishment closure, reduction in working hours and employment, expenditure cuts on a wide range of activities including R&D, marketing, training. Looked at in a positive light, the current recession provides a stimulus for firms to re-examine their portfolio and focus on the core, as well as giving them a good reason to increase efficiency, cutting operating costs and divestment of non-core assets.

#### **INVESTMENT STRATEGIES**

The firms which adopted investment strategies during recession, it means that they perceive it as an opportunity to invest, innovate and expand into new markets in order to achieve or extend a competitive advantage during the recession and beyond. Investment strategies can be new product development, increased marketing spending, investment in new machineries, or increase the quality of products. These strategies are risky and many businesses are likely to be too preoccupied with short term survival to think about innovation and growth. They also required resources (finance, managerial skills, technical expertise) and firms with limited resources are less able to implement them.

## **AMBIDEXTROUS STRATEGIES**

Companies that combine retrenchment and investment strategies are implementing ambidextrous strategies. In this way firms performs both judicious cost/asset cutting behaviour and selective investments in product innovation and market development. This is probably the best way to react to crisis, because cost cutting alone can leave businesses unable to take advantage of an improvement in trading conditions, while investment strategies alone can weight and require many resources, difficult to find in recession period. These strategies seem to offer firms both a short term route to survival, as well as a longer term opportunity to secure competitive advantage. The combination of exploitation (improving efficiency) and exploration (seeking new sources of competitive advantage) appears to be an important strategy in recession.

# **GROUP'S OVERVIEW AND HISTORY**

Parmalat is an Italian company specialized in milk, dairy products (yoghurt, cream based sauces, desserts and cheese) and fruit beverages.

The history of the Group can be described as follow: the first period goes from 1961, year of foundation of the company, to 2003, year of the financial scandal. From December 2003 started the restructuring plan of Parmalat group and the composition with creditors. It established a separate legal entity Parmalat S.p.A., in which from October 2005 are included 16 companies of the former Parmalat group. The new Parmalat S.p.A. has been registered on the Italian stock exchange since October 2005. In 2008 the Group did some divestments: it sold NewlatS.p.A. to TMT Finance SA; it sold to Jonicalatte S.p.A. the business operations comprised of the Taranto milk bottling centre; it sold to Newlat S.p.A. its dairy manufacturing business operations in Lodi. In 2009 Parmalat Group purchased a portfolio of assets in the fresh milk sector by buying the National Foods based in New South Wales and South Australia. The same year Parmalat Nicaragua, subsidiary of Parmalat S.p.A., sold 51% interest in Parmalat Centroamerica S.A. to Productos Lacteos Centroamericanos S.A. Since July 2011 Parmalat S.p.A. has been acquired by Lactalis Group, which owns the 83% of the company's share capital. In 2012 in Italy the Group decided to close three facilities, the ones in Genoa, Villaguardia and Cillavegna, due to the weak market and the scarce demand. In 2013 the Group performed a merger by absorption of Carnini S.p.A., LatteSole S.p.A. and Parmalat Distribuzione alimenti S.r.l. into Parmalat S.p.A.. During the same year the Group acquired Balkis, a Brazilian company based in Sao Paolo.

The company, in all the years under analysis, had a presence through manufacturing in Europe, in Italy, Portugal, Russia and Romania; in the rest of the world in Australia, Botswana, Brazil, Canada, Colombia, Cuba, Ecuador, Mexico, Mozambique, Paraguay, South Africa, Swaziland, United States of America, Venezuela, Zambia and in 2013 were added Bolivia, Paraguay and Uruguay. It also had a presence through licenses in Brazil, Chile, China, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Hungary, Mexico, Nicaragua, United States of America, Uruguay.

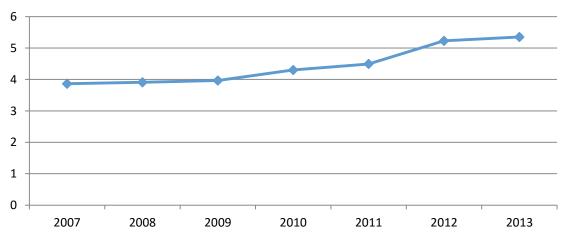
The brands of the Group are Parmalat for milk and dairy products and Santàl for fruit beverages. Zymil, Vaalia and Omega 3 are international brands dedicated to functional

products. Among other local brands, the most important include: Beatrice, Lactantia, Black Diamond and Astro in Canada; Pauls, Ice Break, Oak and Breaka in Australia; Centrale del Latte di Roma, Chef, Berna, Sole, Puro Blu and Carnini in Italy; Sorrento and Precious in the United States of America; Frica and La Campiña in Venezuela; Bonnita, Everfresh, Simonsberg, Melrose, Steri Stumpie and Purejoy in South Africa; Proleche in Colombia; Galbani and Président, brands in exclusive license to the LAG Group, in the Americas.

#### **GROUP'S REVENUES**

Analysing the net revenues of the Group, in all the years under analysis it is possible to notice a positive trend.

# **Revenue Parmalat Group**



GRAPHIC 37- PARMALAT GROUP REVENUE STREAM (IN MILLION €)

In 2008 the net revenues, after currency translation differences, gained 1,2%, due to the higher list prices caused by the raise of the cost of raw milk and by the improvement of the product mix. During this year the milk division counted the 59% of the Group's total revenues and the milk sales were concentrated mainly in Italy (37%), Canada (25%) and Australia (16%). The milk derivatives division (yoghurt, dessert, butter and cheese) contributed the 32% of the Group's net sales and the largest markets were Canada (62%), South Africa (14%), Italy (11%) and Australia (6%). The Fruit based drinks instead accounted for 7% of the total revenues and the main markets were Italy (36%) and Venezuela (35%). In 2008 the Group sold the company Newlat, which was required to comply with antitrust requirements, had the effect of reducing the revenues by 72,6 billion €. In 2009 the net revenues grew up +0,6%,

mainly due to the list price increases implemented to rebuilt profitability. Milk division accounted for 58% of the total revenues and the sales were concentrated in Italy (33%), Canada (26%) and Australia (18%); it is possible to notice a decrease of the net sales in Italy, mainly deriving from Newlat disposal and from the difficult economic situation the country was facing, with lower consumption level and more attitude to buy lower costs products. The milk derivatives contributed with the 31% of Group's net revenues and the largest markets were Canada (61%), South Africa (15%) and Italy (8%); also for this division the revenues in Italy were decreased by 2% due to the disposal of "Lodi" operations (cheese). The fruit based drinks accounted with the 8% and the most of the sales are generated in Venezuela (46%) and Italy (31%); this year Venezuela net sales grew 43%, while in Italy the growth rate was flat. In 2010 the revenues increased by 8,5%, thanks to the consolidation of Parmalat Food Products, an Australian company acquired in 2009. The milk division accounted 59% of the Group's net sales, which were concentrated mainly in Italy (30%), Canada (27%) and Australia (24%); also this year the net revenues in Italy decreased, caused especially by the consumers switching to private labels and the increase use of promotional programs by all players in the market, which caused depressed sales prices. The milk derivatives division, which accounted for the 32% of the revenues, had the main markets in Canada (63%), Africa (16%) and Italy (7%); Italian sales decreased also this year, due mainly to the "Lodi" disposal. The fruit based drinks accounted for the 6% and the sales were divided especially between Italy (36%) and Venezuela (35%); this division get bad result over the year due to the devaluation of Venezueland bolivar and the sales in Italy decreased of 5%. In 2011 revenues grew +4,4%, mainly due to the higher sales prices in Canada, Italy and Venezuela and the higher sales volumes in Australia. The milk division accounted for the 59% of the net revenues and they were concentrated in Italy (29%), Australia (27%) and Canada (26%). Revenues in Italy raised slightly during the year, as in Canada and in Australia which recorded a +14%. The milk derivative division contributed about 32%, with the main markets which were Canada (61%), South Africa (16%), Australia (10%) and Italy (7%). The fruit based drinks division accounted the 6% of the net revenues and it generated mostly of its sales in Venezuela (42%) and Italy(32%). Italian revenues recorded a decrease of 4%. In 2012 the revenues of the group recorded a +16,4%, thanks to the acquisition of operations in United States, Mexico and Brazil, thanks to the price increase implemented in all markets and the appreciation of some currencies. The milk division accounted the 55% of the Group sales, which were concentrated in Australia (28%), Italy (26%) and North America (25%). The milk derivatives contributed with the 37%, with the main markets as North America (68%), Africa (12%) and Italy (5%); the division grew by an average of 18% mainly due to the new business acquisition implemented during the year. The fruit based division accounted for 6% and generated most of its sales in Venezuela (47%) and Italy (27%); Venezuela during the year recorded a huge increase in sales of +21%. In 2013 the net revenues were up overall, especially they grew in Latin America and Africa, a slight decrease in Canada and a positive result in United States; in Italy revenues were stable. The milk division accounted for the 51% of the Group's revenues and the sales were mainly concentrated in Italy (25%), North America (25%) and Australia (27%); during the year revenues increased in Italy and Australia. The milk derivatives division contributed about 39%, and the largest markets were North America (78%), Africa (10%) and Italy(4%). The fruit based drinks division accounted for 5% of the Group's net revenues and the main markets were Venezuela (45%) and Italy (25%); during the year Venezuela recorded an increase in the revenues of 48%.

# **GROUP'S STRATEGY**

Analysing Parmalat, it is possible to conclude that the Group suffered quite a lot during the crisis, especially with the European market, and the Italian one on the top, which saw a decrease of the net sales and revenues quite relevant. In Italy the market switched from branded products to non-labelled ones due to the decline of the consumers' purchasing power and this affected consistently the results of the Group. In 2011 it has been sold the 83% of the share capital to the French company Lactalis and after that year net revenues substantially increased, thanks also to higher internationalisation and the acquisitions of operations in Mexico, Brazil and USA, countries in which the possibilities to grow are high. In order to sustain the sales in old and new markets the Group had the necessity to invest a lot in advertising and promotion, and this increased costs has been balanced by the costs saving plans implemented by the Group in the area of ingredients optimization, continuous improvement and saving projects, utilities optimization, efficiency and overhead spending improvement.

#### RETRENCHMENT STRATEGIES

#### COSTS:

In the table below are reported the main costs of the Group:

	2007	2008	2009	2010	2011	2012	2013
Cost of goods sold	2.993	3.203	3.069	3.400	3.568	4.186	4.323
Distribution cost	411	414	430	436	436	438	441
Administrative expense	241	218	241	294	302	341	342

TABLE 49- PARMALAT GROUP COSTS (IN € MILLIONS)

From 2007 to 2008 the cost of goods sold increased, especially due to the increase in raw material prices, especially milk. The distribution cost, composed by advertising and promotion, sales commissions, distribution freight, personnel and commercial services, slightly increased as well; while the administrative expenses have been reduce thanks to the numerous plan implemented in all countries of cost cutting. In 2009, thanks to both the divestment in Lodi business operation and the one in South America, and the decrease of raw milk price, the cost of goods sold substantially decrease. The increase in the distribution cost was caused by the important increase in advertising and promotions, used to offset the dramatic reduction of sales especially in Europe. The administrative expenses recorded a slight increase to the level of 2007. In 2010 the increase in cost of sales, distribution costs and administrative expenses was due mainly to the loss of value of the euro versus the currencies of the main countries where the Group operates, to the consolidation for the full year of the Australian business operations acquired in July 2009 and to price indexing in countries with hyperinflationary economies. In 2011 the cost of goods sold increased due to the higher prices paid for raw milk and packaging materials in several countries where the Group operated. The distribution stayed quite stable, while the administrative expenses raised especially due to the appreciation of the euro versus the currencies of the main countries where the Group operated and by the hyperinflation indexing in Venezuela. In 2012 and 2013 the costs increased mainly due to the consolidation with Lactalis Group; in particular the cost of goods sold continued to raise due to the higher purchase costs of raw materials. In all the years the company implemented programs to support sales volumes included increased investment in advertising and product promotions, this caused the raised of distribution cost during the years.

#### **INVENTORIES:**

In the table below are reported data about the total level of stock of the Group:

	2007	2008	2009	2010	2011	2012	2013
Total	387.4	333.6	376.1	390.5	378.6	508.5	454
inventories							

TABLE 50- PARMALAT GROUP TOTAL INVENTORIES (IN €MILLIONS)

From 2007 to 2008 it is possible to notice a decrease in the inventory level due to the deconsolidation of Newlat S.p.A. and the more efficient inventory management system of the Canadian subsidiary, which improved the inventory turnover rate by 7 days. In 2009 the inventory level increased due to the increased purchases of powdered milk, packaging materials and fruit concentrate by the Venezuelan operation to meet the demand. In 2010 the inventory level grew again, especially caused by the increased inventories of fresh cheese and powdered milk held by Canadian subsidiary to face higher sales in the first period of 2011. This increase was partially offset by the introduction of a more efficient inventory management in South Africa subsidiary. In 2012 the inventories decreased due to a reduction of the inventory level of aged cheese and ingredients by the Canadian subsidiary. In 2012 the inventory level substantially due by the consolidation with Lactalis Group; moreover the Venezuelan subsidiary imported higher quantities of powdered milk to meet an increase in demand, and the Canadian subsidiary increased the inventory of butter and aged cheese in anticipation of higher sales in 2013. In 2013 the it is possible to notice a reduction in the level of inventory caused by a reduction of finished goods products of the Canadian subsidiary due to the effect of increased sales.

### **EMPLOYEES AND PLANTS:**

In the table are reported data, from 2007 to 2013, about the number of employees and the total number of plants of the company. It is important to analyse those data in order to understand how the Group reacted to the crisis under this aspect.

	2007	2008	2009	2010	2011	2012	2013
Employees	14.721	14.168	13.788	13.930	13.932	15.645	16.352

TABLE 51- PARMALAT GROUP TOTAL NUMBER OF EMPLOYEES

From the year 2007 to 2008, the total number of employees decreased, especially in Italy due to the sale of Newlat S.p.A. and the business operations in Taranto. In all the other countries

the situation was stable, with the exception of increases in Russia and Venezuela, required to meet the higher production needs. From 2008 to 2009 the number of employees decreased as well, especially in Italy, due to the sale of business operations in Lodi, and in Central America due to the divestment of the Parmalat Centroamerica SA subsidiary in Nicaragua. Also in the other countries staffing levels slightly decreased, with the exception of Africa and Australia. In 2010 the total number of employees increased, due mainly to the hiring of temporary workers in South America, Russia and Zambia and of production employees in Australia. In Italy the employees decreased again due to the shutdown of Pa.Di.Al, regular retirements, early retirements and reorganisation of corporate functions. In 2011 the Group's staffing level held quite steady, compared to 2010; in Italy the employees decreased again due to staff turnover, reorganisation of sales unit and of some production facilities. On the contrary, in Russia and Africa, payrolls increased. In 2012, after the acquisition by the Lactalis Group the employees level increased by 1,665 men. In Italy the number of payrolls decreased due to the closing of facilities in Genoa, Villaguardia and Cilavegna. On the contrary in Africa the staff increased, thanks to the hiring of factories staff for the newly established production lines in Zambia and Swaziland. In 2013 the staff grew compared with the previous year due mainly to the acquisition of Balkis in Brazil. Staff increased were also recorded in South Africa, Russia and Australia. In Italy the number of employees decreased due mainly to the expiration of shortterm contracts, not renewed.

In the analysis of the evolution in the number of plants, it is possible to find all the correlations with the employment level evolution. Data of plants are reported in the following tables.

	2007	2008	2009	2010	2011	2012	2013
Italy	12	12	12	12	12	9	9
Other	4	4	4	4	4	4	4
European countries							
Africa	13	13	12	13	13	13	13
North America	18	18 (Canada)	18	18	18	17 (Canada)+ 5(US)	17 (Canada)+ 5 (US)
South America	12	12	12	12	12	12	14
Australia	6	6	8	8	8	8	8

Total	67	67	68	69	69	70	72

TABLE 52- PARMALAT GROUP TOTAL PLANTS

#### **DEBT COMPOSITION:**

In the table are reported data about the Group's level of debt from 2007 to 2013.

		2007	2008	2009	2010	2011	2012	2013
Long term borrowings	Due to banks	276.9	198.7	163.6	2.1	-	-	85.0
	Due to other lenders	33.9	47.7	10.2	1.6	1.2	3.2	1.2
	Obligatio ns	25.4	5.9	8.6	6.2	5.6	4.1	7
Short term borrowings	Due to banks	229.7	219.2	52.5	9.9	11	12.1	41
_	Due to other lenders	6	6.3	6.1	5.7	5.9	9.9	0.4
	Obligatio ns	5.8	3.2	4.6	5.2	5.3	2.7	2.8

TABLE 53- PARMALAT GROUP LONG AND SHORT DEBT LEVEL (IN € MILLION)

The main financing means used by the Group are the banks borrowings, followed by the other lenders' financing and the obligations. From 2007 to 2008 the Group saw a decreased of long and short term banks borrowings and obligations due to the sale of Newlat S.p.A. in 2008. During the same year the Group, considering the long term borrowings, established new borrowings for 79.5 million € (120 million Australian dollar drawn from a new three years syndicated facility to refinance maturity indebtedness; the non-current portion (66.7 million rand) of a facility totalling 80 million rand due in 2013, which was provided by Standard Bank to finance the purchase of a distribution centre in Gauteng), and repaid 88.7 million € of long term borrowing; considering the short term one, the Group defined new borrowings of 5.1 million € (Utilization by a Russian subsidiary of 68.0 million rubles in subsidized short-term credit lines; Current portion (13.3 million rand) of a facility totalling 80 million rand due in 2013, which was provided by Standard Bank to finance the purchase of a distribution centre in Gauteng), and repaid 69.8 million euros. In Italy the Group established a loan with Mediocredito Regionale della Sicilia, and it was repaid with semi-annual instalment of 1.1 million €. In 2009 the long term borrowings decreased mainly due to the disposal of Parmalat Centro America in 2009 (-0.9 million €) and due to the repayment of 107 million euros, while they defined new borrowings of 8.2 million euros refers to the execution of new finance leases

for plant, equipment and vehicles. The short term borrowings decreased by 2 million euros for the sales of Parmalat Centroamerica and it performed repayment of 49.6 million. In 2010 the long term borrowings increased due to new borrowings of 3.7 million euros for the execution of new finance leases for plant and equipment and a total of 202.4 million € have been repaid; the short term one instead increased by 6.2 million € and they performed a total repayment of 23 million €. In 2011 and 2012 the Group had no more long term borrowings by banks, but it established new short and long term obligations and new short term banks borrowings. In 2013 the Group obtained a new medium term credit line, which increased the long term borrowings due to banks by 85 million euros. The short term borrowings increase due to the stipulation of new short banks loans and obligations.

#### **INVESTMENT STRATEGIES**

#### RESEARCH AND DEVELOPMENT:

The Group doesn't report the expenses in R&D in the annual report, but It has always been engaged in improving and enlarge the offered products.

#### **SUMMING UP**

RETRENCHMENT STRATEGIES	INVESTMENT STRATEGIES
2011: Lactalis acquired Parmalat	Acquisition (after Lactalis acquisition)
2011. Lactails acquired Fairnaiat	Acquisition (after factalis acquisition)
Costs reduction in 2009: Costs of goods and services (-4,1%)	Internationalisation (after Lactalis acquisition)
Reduction of employees in 2009: - 2,6%	
Decrease of short and long term borrowings	

#### THE RESULTS

#### PROFITABILITY INDICATORS

### 1. Return On Equity (ROE)

Formula:  $\frac{Net\ income}{Shareholders'equity}$ 

**Description:** it measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested

M€	2007	2008	2009	2010	2011	2012	2013
Net income	674,4	675,7	521,5	285	170,9	84,5	223,2
Equity	2.685	2.852	3.256	3.531	3.655	3.018	3.090
ROE	0,25	0,23	0,16	0,08	0,046	0,027	0,072

TABLE 54- ROE PARMALAT GROUP EVOLUTION

**Comment:** the index is always positive even though it recorded a dramatic and constant decrease from 2008 to 2012, due to the decrease of the net income and the increase of equity. Only in 2013 the net income recorded a better result and the indicator increased as well. Before 2010 the results were positive and highly over the market rate of return, but after 2009 the situation got worse and the results decreased.

# 2. Return on Investment (ROI)

Formula: Operating income
Total assets

**Description:** it measures the profitability of the operating activities of an enterprise compared with the invested capital

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	767,9	738,8	666,8	334,2	199,4	130	302,4
Total assets	4.570	4.369	4.593	4.644	4.800	4.411	4.399
ROI	0,16	0,17	0,14	0,071	0,041	0,029	0,068

TABLE 55- ROI PARMALAT GROUP EVOLUTION

**Comment:** as for ROE, ROI is always positive and recorded a constant decrease of the results from 2008 to 2012, showing the difficult economic situation the company was

facing in the central years after crisis. In any case the positive results of the index represent the ability of the company to remunerate the investments through the business.

### 3. Return On Sales (ROS)

Formula: Operating Income
Revenues

**Description:** it evaluates the company's operational efficiency and it calculate how much profit is being produced per € of sale

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	767,9	738,8	666,8	334,2	199,4	130	302,4
Revenues	3.894	3.940	3.992	4.360	4.538	5.270	5.404
ROS	0,197	0,187	0,167	0,076	0,043	0,024	0,055

TABLE 56- ROS PARMALAT GROUP EVOLUTION

**Comment:** this indicator as the previous indicators constantly decreased from 2007 to 2012, due to the constant decrease of the operating income, and the constant increase of the revenues. The lower indicator represents the always higher percentage of the revenues absorbed by the operating costs. Effects of the crisis have been the higher costs the company has to sustain to run the business.

#### LIQUIDITY INDICATORS

#### 4. Current Ratio

Formula: Current assets
Current liabilities

**Description:** it measures the liquidity of a company, and it evaluates company's ability to pay short term obligations

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	2.597	2.652	2.692	2.570	2.671	2.133	2.283
Current liabilities	1.079	902	765	728	723	873	748
Current Ratio	2,4	2,94	3,51	3,53	3,69	2,44	3,05

TABLE 57- CURRENT RATIO PARMALAT GROUP EVOLUTION

**Comment:** the acceptable level for the current ratio is 2; for this company is easy to notice that the index is always higher than 2 especially in the central years of the crisis, from 2009 to 2011. A value of the indicator higher than 2 means that the company probably didn't use its current assets or its short term financing facilities efficiently. It is possible to verify that the Group drastically decreased its current liabilities, consequence to the fact that the business was running very bad, and the company decided to decrease both short and long term debt.

### 5. Quick Ratio

Formula:  $\frac{Liquidity}{Current\ liabilities}$ 

**Description:** it is an indicator of short term company's liquidity. It measures a company's ability to meet short term obligations with its most liquid assets.

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	2.210	2.319	2.316	2.180	2.293	1.625	1.829
Current liabilities	1.079	902	765	728	723	873	748
Quick Ratio	2,04	2,57	3,02	2,99	3,17	1,86	2,44

TABLE 58- QUICK RATIO PARMALAT GROUP EVOLUTION

**Comment:** the best value of the indicator should be equal to 1; for Parmalat Group the indicator is always higher than 1, and as the precedent one it increased in the central years of analysis. A value higher than 1 means that the company easily converts receivables into cash and has fast inventory turnover. One possible cause of the low quick ratio is the reduction of the current liabilities, caused by the slow and difficult business run by the company after 2009.

# 6. Indebtedness level

Formula:  $\frac{Total \ assets}{Equity}$ 

**Description:** it measures how much the assets are financed with the equity

M€	2007	2008	2009	2010	2011	2012	2013
Total assets	4.369	4.570	4.593	4.644	4.800	4.411	4.399
Equity	2.685	2.852	3.256	3.531	3.655	3.018	3.090
Indebtedness	1,70	1,53	1,41	1,31	1,31	1,46	1,42

level				
IEVEL				
ICVCI				

**Comment:** this value should be lower than 2, to be considered acceptable; and the Group has a result always lower than the threshold. This means that the company financed the total assets in a big portion through equity, which increased from 2009 to 2011, and the short term and the long term liabilities paid a minor role and their importance decreased when the situation got worse.

### **MARGIN ANALYSIS**

# 7. Treasury Margin

Formula: Liquidity - Current liabilities

**Description:** it evaluates the ability of the company to repay short term debt through

the liquidity

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	2.210	2.319	2.316	2.180	2.293	1.625	1.829
Current liabilities	1.079	902	765	728	723	873	748
Treasury margin	1.131	1.417	1.551	1.452	1.570	752	1.081

TABLE 60- TREASURY MARGIN PARMALAT GROUP EVOLUTION

**Comment:** this margin is always higher during all years, this means that in case of necessity the company can cover all the current labilities with the only liquidity. Parmalat operates in a market where the liquidity is not a big problem, because inventory turnover is quite fast; and moreover the Group decreased during the years the short and long debt level, this brought to a higher index especially from 2008 to 2011.

# 8. Structure Margin

**Formula:** Equity – Non current assets

**Description:** it measures how equity finances the non-current assets

M€	2007	2008	2009	2010	2011	2012	2013
Equity	2.685	2.852	3.256	3.531	3.655	3.018	3.090
Non -	1.668	1.511	1.900	2.073	2.125	2.222	2.113
current							

assets							
Structure	1.017	1.341	1.356	1.458	1.530	796	977
margin							

TABLE 61- STRUCTURE MARGIN PARMALAT GROUP EVOLUTION

**Comment:** due to the fact that this margin is always positive, the equity is always enough to cover the non-current assets. This is positive for the company because in case of necessity it should not be in necessity to liquidate the non-current assets.

# 9. Net Working Capital

Formula: Current assets - Current liabilities

**Description:** it is used to determine the availability of a company's liquid assets by subtracting its current liabilities

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	2.597	2.652	2.692	2.570	2.671	2.133	2.283
Current liabilities	1.079	902	765	728	723	873	748
Net working capital	1.518	1.750	1.927	1.842	1.948	1.260	1.535

TABLE 62- NET WORKING CAPITAL PARMALAT GROUP EVOLUTION

**Comment:** this index, as the treasury margin, is always positive and substantially increased from 2008 to 2011. As said before it can be caused by the restructured current liabilities, with the reduction of the short debt.

# **GROUP'S OVERVIEW AND HISTORY**

The Danone Group is a company and a major player in the global food industry.

In all the years under analysis (2007-2013) the company operates in four different markets corresponding to four different lines: Fresh Dairy Products, Water, Baby Nutrition and Medical Nutrition. The most important Group's brands were Danone, a leading brand of fresh dairy products; Evian, leading brand of bottled still mineral water; Volvic, international brand of bottled still water; Aqua, brand of packaged water in Indonesia; Nutrica and Mupa, baby nutrition market; Actimel and Activia, two probiotic product lines; Taillefine, Vitalinea and Ser, low-fat products, and Danonino, Danimals and Petit Gervais, in the fresh cheese line.

The 2007 has been an important year for the refocusing of the business that the company started in 1997. The strategy of the Group was to focus in the area of health, that's why in that period the company acquired Numico, which enabled it to add baby food nutrition and medical nutrition activities in the portfolio.

In 2008, the Group decided to refocus the water division strategy, by withdrawing its commitment to non-alcoholic beverages and fruit drinks in Asia-Oceania; that's why it sold minority equity stake in China Huiyuan Juice Group Limited, a company leader in fruit drinks, and it sold its subsidiary Frucor, one of the leaders in non-alcoholic beverages in New Zealand and Australia, and of its international brands V and Mizone. Moreover the same year to strength its presence in the four business lines the Group's South Africa subsidiary acquired Mayo, a fresh dairy product company in South Africa.

In 2010 the Group acquired the Unimilk group companies, this transaction concerned Russia, Ukraine, Kazakhstan and Belarus and covered all dairy products. This acquisition gave to the Group significant sales and cost synergies thanks to the shared knowledge and infrastructures. In 2011, Unimilk's activities were merged with those of Danone's Fresh Dairy Products Division already present in the area for the purpose of pooling the resources and cultures of the two entities. Furthermore, efforts were made to prioritize Unimilk's brands, with a particular emphasis on the development of value-added dairy products, specifically the Prostokvashino, Tëma and Bio Balance brands. During the same year the Group acquired the 100% of Medical Nutrition USA, a medical nutrition company in United States, moreover it acquired the 94% of Yocream, an American company of fresh dairy products.

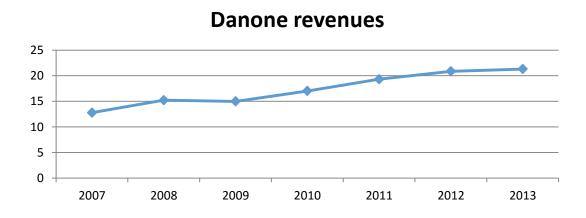
In 2011, following both strategies, Danone signed an agreement with Wockhardt Group to acquire its nutrition business and brands as well as its related industrial operations from Carol Info Service (located in Punjab, India).

In 2012 Danone raised its interest in Centrale Laitière du Maroc to 67.0%; this transaction helped the Group to invest more in a market with high potential and to support growth of the local dairy industry. In the same year Danone closed the acquisition of Wockhardt's nutrition business in order to establish a presence in the Indian baby nutrition and medical nutrition markets.

In 2013 the strengths to expand its global presence continued; that's why Danone signed a partnership with Sirma, one of the leading player in the Turkey market, acquiring the 50,1% of the company. Moreover in the same year it acquired Happy Family one of the fastest-growing premium organic baby food companies in the United States, the Group acquired an over 90% equity interest in Happy Family.

#### **GROUP'S REVENUES AND SALES**

In order to understand how crisis affected the market of the Group, it is important to analyse the total sales, per product and per geographic area. In this way it is possible to evaluate the two strategies adopted by the companies: increase of the market presence; health refocusing strategy and innovation.



GRAPHIC 38- DANONE GROUP TOTAL SALES IN MILLION €

From the graph it is possible to analyse Danone's net sales during the years and it is possible to notice that net sales had a positive trend, except in the year 2009, when it recorded a

decrease in the total revenues due to a negative effect of changes in consolidation scope and changes in exchange rate. During that year in fact the company performed two disposals, one of the subsidiaries Frucor (water- New Zeeland and Australia) and the other of Danone Naya (water- Canada); furthermore the exchange rate effect was mainly due to the weakening of the Russian ruble, the Polish zloty, the Mexican peso and the U.K. pound. During all the other years the revenues continuously increased due to the positive effects of higher volume and the price/mix effect, moreover the higher revenues are justified by the positive effects in the scope of consolidation, due to the acquisition of different companies which positively affected the sales (Unimik-2010; Centrale Laitiere-2013).

In the table below are reported data about net sales divided per business line and per geographic area.

In € million, except for percentage	Fresh dairy products	Waters	Baby nutrition	Medical nutrition	Europe	Asia	Rest of the word
2007	8,229	3,535	809	133	60%	12,9%	27,1%
2008	8,696	2,874	2,795	854	62,6%	12,2%	25,2%
2009	8,555	2,578	2,924	925	59,8%	12,5%	27,7%
2010	9,732	2,868	3,355	1,055	56%	14%	30%
2011	11,235	3,229	3,673	1,181	56%	15%	29%
2012	11,675	3,649	4,257	1,288	52%	17%	31%
2013	11,790	3,903	4,263	1,342	-	-	-

TABLE 63- DANONE GROUP NET SALES PER BUSINESS LINE

Considering the business lines, Danone is the world's largest producer of Fresh Dairy products and from 2007 to 2013 the net sales continuously increased, except in the year 2009, due to a contraction of sales especially in Europe, affected by the crisis. The Group recorded a positive trend thanks to the continuous strength to innovate and to reach the highest possible number of countries. During these years the Group reached Chile, Egypt, Japan, Indonesia and strengthen its position in China and South Africa; while growing also in the already well established countries as in Europe (considering also Russia and Turkey), North America and South America (especially Argentina and Brazil). Considering the water division, it recorded a dramatic reduction in sales in 2008 and 2009, reduction especially recorded in the industrialized countries which had bad performances due to the impacts of the economic crisis on the market, and due to the disposals of two companies Frucor (Waters

- New Zealand and Australia) and Danone Naya (Waters - Canada). On the contrary the

emerging countries (Indonesia, Mexico, Argentina and China) continuously recorded positive growth thanks to the business line's ability to promote its brands. From 2010 the line started to grow again due to the division's improved product mix. Considering instead baby nutrition after the acquisition of Numico, the division recorded a positive trend in all the years with all the countries which positively contribute to the sales, and the main contributors' to the division's growth have been China, Indonesia and United Kingdom. Concluding the Medical Nutrition, as the Food Nutrition, recorded a positive growth from 2007 to 2013, and the most important countries which contributed the most to the sales are China, United Kingdom, Turkey and United States.

The Group is present in all the regions of the world and as it is possible to analyse from the table, an important strategy has been the increase of the net sales in the emerging markets, countries outside Europe. The Company's growth strategy has been to focus its geographical expansion on high-growth countries like Mexico, Indonesia, China, Russia, the United States and Brazil. In fact it is possible to notice a decrease of the net sales of European countries, while Asia and rest of the world sales grew during the years under analysis. This strategy has been possible also thanks to all the acquisitions that the Group did during all the years under analysis.

# **GROUP'S STRATEGY**

Danone Group, as mentioned before, during the years under analysis, adopted two main strategies: the first has been the development of markets outside Europe, due to the weaker economic situation of the countries in EU, and the second strategy has been the refocusing business strategy with the acquisition of the nutrition sector and the sale of the less profitable ones. The Group put high efforts in increasing its presence in countries with high potential growth, and this gave to the Group the possibility to balance the fewer sales in the European countries with the new ones reached. Thanks to the acquisition of the two new divisions and the sales of the brands and products less profitable, and thanks to the strong brand identity, the Group didn't suffer a lot during the years 2008-2013, keeping the revenues and the sales in constant growth.

#### RETRENCHMENT STRATEGIES

#### COSTS:

	2007	2008	2009	2010	2011	2012	2013
Costs of goods and services	6,380	7,172	6,749	7,959	9,541	10,409	10,977
Selling cost	3,498	4,197	4,212	4,663	5,092	5,474	5,425
General and administrative expenses	943	1,297	1,356	1,494	1,564	1,746	1,707

TABLE 64- DANONE GROUP COSTS (IN € MILLIONS)

Considering the costs of goods sold the Group since 2007 has implemented policies to optimize costs. In 2008 and 2009 the costs of goods sold, as a percentage of net sales, decreased resulted from productivity gains, achieved with a reduction of raw material prices, renegotiation of some of its purchase contracts and synergies implemented in the area of logistics. Since 2011, the acquisition of Unimilk increased the cost, which has also been affected by the increase of the raw material prices; in 2012, as well as 2013, the costs of milk, proteins, fruits and sugar negatively affected the total cost of goods sold. This increase has been partially offset by the cost-cutting measures implemented during the years. Considering the selling costs, which are advertising and promotional expenses, distribution costs and sale forces overhead costs, it recorded a constant increase during the years due mainly to the always high efforts of the Group to sales promotion initiatives, launch of new products, extension of distribution area, and since 2010 the expenditure on digital marketing recorded a constant growth. Only in 2010 the Group reduced the advertising and promotional expenses, as a cost cutting policy, but in the subsequent years the expenses grew again to support the visibility of the Group brands. Concluding the general and administrative expenses have always recorded a positive growth and no specific policies have been adopted.

#### **INVENTORIES:**

In the table below are reported data about the total level of inventories of the Group.

	2007	2008	2009	2010	2011	2012	2013
Inventories	861	795	765	975	1,061	1,095	1,252

TABLE 65- DANONE GROUP INVENTORY LEVEL (IN € MILLIONS)

It is possible to notice that this strategic action, to decrease the inventories, it has been adopted only in the years 2008 and 2009, after that period the level of inventories grew, due

to the higher demand and the good results of the market. The pick of the inventories has been registered from the year 2011, after the consolidation with Unimilk.

#### **EMPLOYEES AND PLANTS:**

In the table below are reported data about the number of production plants owned by Danone.

	2008	2009	2010	2011	2012	2013
Europe	54	55	54	77	-	-
Asia-Pacific	50	50	49	43	-	-
Rest of the	56	54	55	66	-	-
world						
TOTALE	160	159	158	186	194	191

TABLE 66- DANONE GROUP NUMBER OF PRODUCTION PLANTS

The division per country is available only until 2011. Considering it, it is possible to conclude that after the acquisition of Unimilk the number of plants in Europe substantially increased from 2008 to 2011; also in the rest of the world it is possible to notice a grow in the number of plants, while in Asia the number decreased. Analysing the plants in the complex, from 2007 to 2013 they raised and this can be due to the acquisitions that the companies performed during the years.

Considering France, in the country the number of plants have been quite stable; in 2007 there were 12 while in 2013 were 13. So it is possible to conclude that the company didn't closed important facilities in the country but maintain its position and brand also during the difficult years under analysis.

In the table are reported data about the total number of employees of the Group.

	2007	2008	2009	2010	2011	2012	2013
Number of	76.044	80.143	80.976	100.995	101.885	102.401	104.642
employees	ployees		85.073	87.164	86.555	85.853	

TABLE 67- DANONE GROUP NUMBER OF EMPLOYEES

From 2010 are reported both data with the acquisition of Unimilk, the Russian company, and data without Unimilk. Considering Danone, without Unimilk, it recorded a positive growth in the total number of employees from 2007 to 2011, after that year the company decided to apply a strategic plan to reduce costs, due to the difficult economic situation in the European market, that is why it is possible to notice a decrease in the total number of employees (-1,5%), and they decreased especially in rest of Europe (excluding France) and in Africa and Middle East. In particular in France the employment has been quite stable over the years: in 2007 the employees were 8,669, in 2010 were 8,786, and in 2013 were 8,585; so they decreased in 2013 but in a less important way than in the other countries. Considering also Unimilk, the company positively affected the total number of employees, and from 2010 they increased constantly in all the years under analysis.

#### **DEBT COMPOSITION:**

Within the scope of its operating activities, the Group does not use indebtedness in either a recurring or a significant way. Operating cash flows are generally sufficient to self-finance its business operations and internal growth. Its goal was to maintain its amount of debt at a reasonable level, in particular, to preserve some flexibility with respect to its financing sources. The Group reduces its exposure (i) by seeking diversified financing sources, (ii) by managing a significant part in the medium term financing, (iii) by maintaining financing sources that are available at any moment and (iv) by ensuring that it is not subject to any commitment relative to financial covenants.

In the table are reported data about Group's debt broke down in order to analyse how it is changed during the different years:

	2008	2009	2010	2011	2012	2013
Bonds	4,286	2,834	3,373	3,373	4,563	7,078
Financial debt managed at corporate level	2,490	-	-	4,338	5,448	7,827
Subsidiaries' bank financing and other financing	649	455	1,296	1,013	756	815
Commercial	1,563	1,140	657	852	853	737

papers

TABLE 68- DANONE GROUP TOTAL DEBT (IN € MILLIONS)

The Group's financing structure is mainly comprised of: bank financing, financing on debt and capital markets and cash and marketable securities. In 2008 the Group, in order to finance the acquisition of Numico, stipulated a bank financing for a total amount of 4 billion €, divided in 2 tranches: 2,3 billion € expiring in December 2010 and a second one of 1,7 billion expiring in December 2012. Moreover for the medium term financing the Group had available two credit facilities: EMTN (Euro Medium Term Notes) bond financing a program with a total amount of 7 billion €, of which 4,286 has already been drawn in 2008; and commercial paper, a program with a total amount of 2,5 billion €, of which 1,6 billion already drawn. In 2009, the Group strengthened its financial structure in order to reduce its gross and net debt levels, and return to its debt levels consistent with its cash generation capacity. That's why the Group hadn't drawn down any amounts in respect of the credit facility stipulated to finance the acquisition of Numico. In the same year the Group drawn an amount of 2,8 billion € from the EMTN bond financing and 1,1 billion from the commercial paper. Also in 2010 the Group had not drawn any amount of the remaining tranche from the credit facility to acquire Numico, but from the debt and capital markets financing Danone drawn 3,2 billion € from the EMTN bond financing and from the French commercial paper an amount of 657 billion. In the subsequent years the Group increased its net debt, by raising its financial debt managed at corporate level and in order to diversify its source of financing and extent the average maturity of its debt the Group increased the Bond issued (EMTN) especially in 2012 and 2013.

#### **INVESTMENT STRATEGIES**

#### **RESEARCH AND DEVELOPMENT:**

In all the years Danone continued to increase its effort in the research and development field in order to improve its position on the market. The Research and Development division is fundamental for the growth of the company and it has two major scientific hubs: one in France, near Paris and one in Netherlands. It also have different centres in mostly countries it is present in order to be nearer the market and be more effective. The division counted 1200 employees in 2007 and in 2013 they became 1500, of which 500 are in France. The main objectives of the R&D are: develop products whose nutritional qualities are adapted to the needs – and tastes – of the local populations; develop products with specific and targeted effects to optimize people's health capital and quality of life; improve dietary practices and

promote healthier diets for everyone. This process has been always carried with the objective of develop innovative production process which serve the general strategy of reducing costs. In order to grow it is very important for the Group to continue innovate and try to find new products which satisfy customers' needs; every years Danone try to increase its offer, adding new products in their portfolio.

	2007	2008	2009	2010	2011	2012	2013
R&D cost	121	198	206	209	233	257	275

TABLE 69- DANONE GROUP R&D EXPENSES (IN MILLION €)

Analysing data in the table it is possible to notice a huge increase in the year 2008 of the R&D expenses, due to the integration of the two new area Medical Nutrition and Food Nutrition, which require a huge amount of expenses in Research and Development. After that year the expenses have grown proportionally with the growth of the revenues, staying quite stable at 1,3% of the net sales value. The Group has always put an effort in developing specific products for the specific requirements and needs of the different countries; both in term of products itself but also for the packaging (the "shot" bottle in Iran and Fontvella 2.5-liter family format to go with meals in Spain; Danonino, a dairy product for children, differs from one country to another, for example with added vitamins D and E in Brazil, calcium and vitamin D in Poland, zinc and vitamin D in Mexico;)

In the fresh dairy division, the researches have been focused in the areas of i) bone health, ii) interactions between microbes in the human intestine and their host, and iii) the impact of these microbes on human health; moreover in 2012 and 2013 the Group focused its research on the impact of the consumption of yogurt as an essential food category in terms of diet and health and they continued to develop innovations with the launch of the new KISS cup in Europe and the continued roll-out of the Oikos and Danio greek-style yogurts. The water division since 2010 started to focus its attention on the packaging by developing eco-friendly bottles in order to reduce the carbon footprint, and also it continuous to analyse the hydration of the human being. In 2010 has been introduced the first partly vegetable PET bottle, under the Volvic brand in France; in 2011 and 2012 the water division continued its effort in the developing a 100% bio-polymer bottle and in 2012 the completion of a prototype has been achieved. Moreover the Group worked on the extension of the Aquadrinks Villacencio product line in Argentina, the development of Bonafont Kid con Jugo in Mexico and of Volvic Juicein the

United Kingdom. In 2013 the Division continued to develop the line of aquadrinks (beverages made from water and fruit juice), with the launch of Bonafont Levissé in Brazil and the first formulations of lemonades in Europe. The Baby Nutrition Division in the first years of the acquisition focused its attention in developing an individual's health capital and on studying specific topic as the impact of nutrition on the first three years of life or on baby's allergies. In 2010 the Division's Research and Development team came up with a growth milk containing the probiotic scgos/lcfos, which is associated with bifi dobacterium breve. The milk was introduced in Thailand under the name Dumex hi-q1. Moreover to support the growth of the Group's business in the Asia-Pacific region, Danone opened a brand new research facility in Singapore in April 2011, which will focus on nutrition for mothers' and children's health. In 2012 the Division launched a new follow-on milk aimed at reducing the risk of infections and improving the intestinal flora for children between the ages of 1 and 3 years. Concluding, considering the Medical Nutrition Division, in 2009 it developed the Fortimel Compact, an oral dietary supplement for senior citizens, suffering from deficiencies of essential nutriments; in 2010 to strengthen its global presence a research centre was open in United States and in the same year were also introduced the new Nutrison Tube feeds, with new formulas based on the most recent nutritional information and recommendations, including a new protein and a mix of fats. In addition, a beverage named Fortini Smoothie was developed and circulated in paediatric nutrition circles. In 2011 the Division launched new products as the Fortimel Compact Fibre and Neocate LCP, and it opened a new Research and Development centre in Singapore, with the Baby Nutrition one. In 2012 and 2013 the Division developed or improved 19 and 18 new products respectively and it continues the trial of the Souvenaid, nutrient-enriched beverage aimed at people diagnosed with early onset or moderate Alzheimer's disease. In 2013 it established development teams in Brazil and India in order to support the local markets and implement technology transfers to companies recently acquired by the Group in these countries.

# **SUMMING UP**

# Retrenchment strategies Investment strategies Cost reduction in 2009: Costs of Internationalisation goods sold (-5,8%) Refocusing strategy on health and Inventories: in 2009 -3,7% nutrition Reduction number of plants: in 2009 Investment in R&D to develop new -0,06% products In 2012-2013 saving and adaptation Important acquisition of Unimilk plan in Europe: cost and employees reduction Assets disposal: optimise portfolio and focusing on core business

#### THE RESULTS

#### PROFITABILITY INDICATORS

# 1. Return On Equity (ROE)

Formula:  $\frac{Net income}{Shareholders' equity}$ 

**Description:** it measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested

M€	2007	2008	2009	2010	2011	2012	2013
Net income	4,338	1,491	1,521	2,034	1,855	1,733	1,550
Shareholders'	9,100	8,700	10,609	11,987	12,198	12,254	10,729
equity							
ROE	0,48	0,17	0,14	0,17	0,15	0,15	0,14

TABLE 70- DANONE GROUP ROE EVOLUTION

**Comment:** the results of the Group, as it is possible to see from the index, are quite good. ROE is always positive and higher than the market rate of return. The result of the year 2007, before the crisis was better than the results after 2008, especially due to the decrease of the income, and the increase during the years of the equity.

# 2. Return on Investment (ROI)

Formula:  $\frac{Operating\ income}{Total\ assets}$ 

**Description:** it measures the profitability of the operating activities of an enterprise compared with the invested capital

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	1,546	2,187	2,511	2,498	2,729	2,747	2,128
Total assets	27,576	26,865	24,307	28,099	28,426	29,537	30,928
ROI	0,056	0,081	0,103	0,088	0,096	0,093	0,068

TABLE 71- DANONE GROUP ROI EVOLUTION

**Comment:** ROI registered good and positive results during all the years under analysis. Operating income increased and bought a positive contribution to ROI. This means that the money that the company invested in a project are generating sufficient profit and return, and this is positive for the company and the investors.

# 3. Return On Sales (ROS)

Formula: Operating Income Revenues

**Description:** it evaluates the company's operational efficiency and it calculate how much profit is being produced per € of sale

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	1,546	2,187	2,511	2,498	2,729	2,747	2,128
Revenues	12,776	15,220	14,982	17,010	19,318	20,869	21,298
ROS	0,121	0,143	0,167	0,146	0,141	0,131	0,099

TABLE 72- DANONE GROUP ROS EVOLUTION

**Comment:** this index registered a not constant trend during the years, increasing and decreasing in relation to revenues and operating income. Operating income had a quite constant increase, except for the year 2013 in which it registered a lower result; while the revenues recorded a lower result in 2009 but after that year the trend is positive. The index increased since 2009 and after that year started to decrease; this means that the 90% of the revenues are absorbed by the operating costs and this result reduced in the last years, meaning that the operating costs are consuming more revenues than before.

# LIQUIDITY INDICATORS

# 4. Current Ratio

Formula: Current assets
Current liabilities

**Description:** it measures the liquidity of a company, and it evaluates company's ability to pay short term obligations

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	4,394	4,883	4,407	5,895	6,112	6,923	7,850
Current liabilities	6,813	4,898	5,856	7,203	6,963	8,553	10,607
Current Ratio	0,64	0,99	0,75	0,81	0,87	0,81	0,74

TABLE 73- DANONE GROUP CURRENT RATIO EVOLUTION

**Comment:** to be considered good this indicator should be higher than one. The company instead registered results always lower than the threshold. This means that the current assets are not sufficient to cover the current liabilities in case of necessity. It is possible to notice a quite constant positive trend for both current assets and liabilities even though liabilities are always higher than assets, consequently the company could run into liquidity problems.

# 5. Quick Ratio

Formula:  $\frac{Liquidity}{Current\ liabilities}$ 

**Description:** it is an indicator of short term company's liquidity. It measures a company's ability to meet short term obligations with its most liquid assets.

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity (current assets- inv)	3,533	4,088	3,642	4,920	5,051	5,828	6,598
Current liabilities	6,813	4,898	5,856	7,203	6,963	8,553	10,607
Quick Ratio	0,52	0,83	0,62	0,68	0,72	0,68	0,62

TABLE 74- DANONE GROUP QUICK RATIO EVOLUTION

**Comment:** this index should be higher than one, but also in this case it is always lower. Liquidity from 2007 to 2013 increased, not in a constant way and proportionally less than the current liabilities. This index is of course always lower than the current ratio and it means that the company is not able to repay all the current liabilities with the only liquidity, so in case of necessity the current assets should be touched.

#### 6. Indebtedness level

Formula:  $\frac{Total \ assets}{Equity}$ 

**Description:** it measures how much the assets are financed with the equity

M€	2007	2008	2009	2010	2011	2012	2013
Total assets	27,576	26,865	24,307	28,089	28,426	29,537	30,928
Equity	9,100	8,700	10,609	11,987	12,198	12,254	10,729
Indebtedness	3,03	3,08	2,26	2,34	2,33	2,41	2,88

1			
level			

TABLE 75- DANONE GROUP INDEBTEDNESS LEVEL EVOLUTION

**Comment:** to be considered good the index should be lower than two, but it recorded values always higher, even though in the central years the situation was better. This means that less than a half of the total assets are financed by equity and the remaining is financed by third parties loans. Total assets recorded a decrease in the year 2009, but after that they started to increase again recording from 2007 a +12%, instead equity decrease in the years 2008 and 2013 and from 2007 registered a +17%.

#### **MARGIN ANALYSIS**

#### 7. Treasury Margin

Formula: Liquidity - Current liabilities

**Description:** it evaluates the ability of the company to repay short term debt through

the liquidity

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	3,533	4,088	3,642	4,920	5,051	5,828	6,598
Current liabilities	6,813	4,898	5,856	7,203	6,963	8,553	10,607
Treasury margin	-3.280	-810	-2.214	-2.283	-1.912	-2.725	-4.009

TABLE 76- DANONE GROUP TREASURY MARGIN EVOLUTION

**Comment:** this index should be positive, but as said before liquidity is not sufficient to cover all the current liabilities and this leads to a negative result. The margin got worse during the years, increasing the negative results, especially caused by the higher increase of the current liabilities compared to the liquidity of the company.

# 8. Structure Margin

**Formula:** Equity – Non current assets

**Description:** it measures how much equity finances the non-current assets

M€	2007	2008	2009	2010	2011	2012	2013
Equity	9,100	8,700	10,609	11,987	12,198	12,254	10,729

Non-	23,182	21,982	19,900	22,204	22,314	22,614	23,078
current							
assets							
Structure	-14.082	-13.282	-9.291	-10.217	-10.116	-10.360	-12.349
margin							

TABLE 77- DANONE GROUP STRUCTURE MARGIN EVOLUTION

**Comment:** as said before equity does not cover all the assets, this brings to a negative results for this index. This means that the company in case of necessity should touch the non-current assets and this underlines a not so strong financial situation. the margin got better in the central years after 2008 but in 2013 it increased again due to a strong decrease of the equity.

# 9. Net Working Capital

Formula: Current assets - Current liabilities

**Description:** it is used to determine the availability of a company's liquid assets by subtracting its current liabilities

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	4,394	4,883	4,407	5,895	6,112	6,923	7,850
Current liabilities	6,813	4,898	5,856	7,203	6,963	8,553	10,607
Net working capital	-2.419	-15	-1.449	-1.308	-851	-1.630	-2.757

TABLE 78- DANONE GROUP NET WORKING CAPITAL EVOLUTION

**Comment:** the result of this margin is negative in all the years under analysis, with an important improvement of the index in 2008, thanks to a better management of the current liabilities. The fact that the results are negative means that the company in case of necessity is not able to cover all the current liabilities with the only current assets and the use of new debts or equity would become necessary. The negative working capital is possibly caused by the facility to generate cash quickly and this happens because customers pay upfront and so rapidly and so the business has no problems raising cash. This is a typical company in which products are delivered and sold to customers before the company ever pays for them. These negative results are not necessary seen as bad results for the business under analysis.

After the analysis of the single companies in the food and drink sector, it is important to compare these Groups in order to understand which one got the best results and which one recorded the worsen effects of the crisis.

First of all, it is important to underline that I chose two companies very different for dimension and importance, so it is not so correct to compare the two without taking in consideration this fact. I decided to analyse Danone and Parmalat because are two reality very characteristic of the country of origin and moreover because they are in the same product sector, in particular dairy products.

Danone Group is a big international firm, which decided in 2008, so during the first year of recession, to change its strategy and structure adding two importance areas in its business: baby nutrition and medical nutrition. This strategy, to add these two productions, with the already well established dairy and water ones, bought the company to positive results. Furthermore, the company in order to face the market uncertainty and the lower purchasing power of the European countries, started to enlarge their markets outside Europe, reaching the emerging countries Mexico, Indonesia, China, Russia, the United States and Brazil, through the acquisition of different brands and companies.

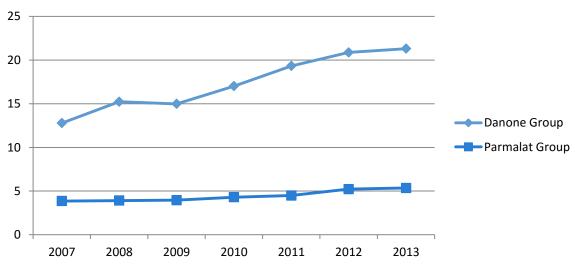
If, instead, we consider the initial Italian company Parmalat, it is possible to conclude that in the central years of the recession, 2008-2010, the company suffered a lot, especially due to the too high dependence of the Group to the national market. During those years in fact the Italian market recorded a decrease of the average expenses and, moreover, the population started to switch from branded products to non-branded ones, which usually have lower prices. That's why Parmalat recorded a decrease of the net income and sales, until the moment in which the French company Lactalis bought the Group. From that moment increased the importance of outside Europe countries, and thanks to companies acquisitions in Mexico, United States and in South America, sales started to grow again.

Analysing the retrenchment strategies put in place by the two Groups, it is possible to state that Danone retrenchment strategies were less important than the ones done by Parmalat. In particular Parmalat decided to carry out an important decrease of the number of employees and plants in Italy, consequently at the lower sales in the country, and moreover, where it was

possible tried to decrease the total level of stock and the administrative costs in all the facilities. On the other hand Danone didn't decrease the number of employees and plants, but on the contrary, and due to the numerous acquisitions, the total number increased. As Parmalat, the French Group tried to decrease the total inventories and the costs in particular in the period 2008-2009.

Comparing the results in term of revenues of these two Groups, in the graph below are reported the values:

# **Comparison revenues Danone and Parmalat**



GRAPHIC 39- COMPARISON PARMALAT GROUP- DANONE GROUP TOTAL REVENUES(IN MILLION €)

Comparing the results, it is easily noticeable the higher importance and the better results of Danone Group, which since 2007 has registered higher revenues year after year. On the other hand, Parmalat started from a much lower revenue level and the growth is much more restrained.

In order to understand better the comparison between these two companies are reported below the three most general indicators: ROE, ROI and ROS.

		2007	2008	2009	2010	2011	2012	2013
ROE	Dan	0,48	0,17	0,14	0,17	0,15	0,15	0,14
	Par	0,25	0,23	0,16	0,08	0,046	0,027	0,072
ROI	Dan	0,056	0,081	0,103	0,088	0,096	0,093	0,068
	Par	0,16	0,17	0,14	0,071	0,041	0,029	0,068
ROS	Dan	0,121	0,143	0,167	0,146	0,141	0,131	0,099

Par	0,197	0,187	0,167	0,076	0,043	0,024	0,055
-----	-------	-------	-------	-------	-------	-------	-------

TABLE 79- PARMALAT GGROUP DANONE GROUP INDICATORS COMPARISON

Comparing the indexes of the two companies, it is possible to state that at least both firms had positive results in all the years under analysis. In particular, considering ROE, Danone in 2007 recorded a quite higher result, compared to Parmalat. This is due to the higher net income of the company, which in 2007 was 4.338 million €, compared to 674,4 million € of Parmalat. After that year Danone ROE substantially decreased, and recorded quite stable values. The decrease was caused by the lower net income, caused by the higher costs sustained and by the worsen economic situation of the markets. Considering instead Parmalat, the values of the net income recorded a dramatic reduction since 2010, and it is possible to see these negative results in the values of the indicator, which decreased as well; only in 2013 the results of the acquisition of Lactalis are more visible and the net income slightly increased.

Considering ROI, analysing the first three years 2007,2008, 2009, Parmalat recorded higher results compared to Danone, due to the lower total assets of the Italian company. But after 2009, Parmalat started to lose operating income, and ROI substantially decreased. On the other hand, analysing Danone ROI, it is possible to conclude that the value of the indicator was very low in 2007, due to the low operating income and the higher total assets value. In 2009 the index registered the highest value, due to the lower total assets and the higher operating income thanks to the lower cost of goods sold and the disposal of the subsidiaries Frucor and Danone Naya. After 2010 operating income and total assets substantially increased and the indicator recorded lower results.

Considering the indicator Return On Sale, Parmalat recorded year after year a lower result due to the dramatic decrease of the operating income and the continuous increase of the revenues. Compared with Danone, it seems it got better results in the first years but it is caused by the lower difference between revenues and operating income. Danone, on the contrary, considering the revenues registered a continuous higher values, except in the year 2009, during which they decreased; while the operating income increased in the periods 2008-2009 and 2011-2012 due to the better costs management.

Concluding it is possible to state that Danone, since 2007, has been a much more solid company compared to Parmalat, and during the recession period, also thanks to the particular sector which has not been hurt so much by the crisis, and also thanks to the good decisions and strategies adopted during the years, they didn't suffer in a bad way. On the contrary

Parmalat, which was a smaller company, opened to the international market but in a more limited way, suffered particularly during the years of the recession, until the point in which the company has been sold to the French one. The importance of the internationalisation and the dimension of the firm, in line with the strategic decisions as acquisition or disposals of particular businesses can be considered the key factors to survive during a difficult economic period.

# **GROUP'S OVERVIEW AND HISTORY**

In 2008 FIAT was a global group whose activities were grouped in these following businesses:

- Automobile: the main brands in the mass market car production were Fiat, Abarth, Alfa Romeo and Lancia; in the light commercial vehicles production was Fiat Professional brand and in the luxury cars production were Ferrari and Maserati. They represented the 49,47% of the total revenues of the Group.
- Agricultural and construction equipment: Fiat owned the 88,9% of the Case New Holland, companies specialized in tractors, agricultural equipment and construction equipment. They represented the 21,4% of the total revenues.
- Trucks and commercial vehicles: Iveco was the brand for trucks and commercial vehicles; Iveco Irisbus was the brand of buses. They represented the 18,13% of the total revenues of the Group.
- Components and production system: with the brands FPT Powertrains technologies,
   Magneti Marelli, Teksid and Comau, Fiat Group was present in this business. They
   represented the 23,22% of the total revenues.

In 2008, Fiat Group was present in Europe, in South America (especially Brazil and Argentina), and in Turkey. That year in Europe and in Turkey the cars market was really going bad and Fiat Group recorded a decrease in sales of -8,8%; on the contrary in Brazil sales increased 8,6% the same year. Despite the challenging market conditions the company updated the product range, with important new models introduction. The most relevant were the one introduced by Alfa Romeo, MiTO, the one introduced by Lancia, Delta, and the one by Fiat, Qubo. In this year was strong the commitment to the environment and the research of new way to reduce emissions; the Gran Punto natural power was launched, and the Pure-O2 label was introduced, the label was to be used for low environmental impact vehicles.

In 2009, FGA recorded a positive share gains, in Europe, in the passenger cars market thanks to the incentives introduced in the most important countries for environmental friendly cars, and thanks to the effort of the Group in this field, it enabled the sector to fully benefit from eco-based government incentives. Also in Brazil Fiat Group Automobiles recorded an increase of sales of 12,3% over 2008, showing the good situation of the company. With the objective to expand the business in the world and trying to find possible alternatives to the bad economic

situation of Europe, in 2009 Chrysler Group, named FCA US lately, and Fiat defined an agreement to establish a global strategic and operational alliance. The agreement granted the US automaker to access to Fiat technology, platforms and powertrains for small and medium-sized cars. This enabled Chrysler to expand its product offering with the addition of low environmental impact models. Chrysler will also have access to Fiat's international distribution network. The alliance represented an important step toward positioning both Fiat and Chrysler among the next generation of leaders of the auto industry globally. As consideration, Fiat received an initial equity interest of 20% in the newly-formed Chrysler Group LLC. To further strengthen its position in terms of both products and distribution capability in international markets, Fiat signed a framework agreement in July with GAC (Guangzhou Automobile Group Co. Ltd.) for the creation of a 50/50 joint venture in China to produce engines and passenger cars for the Chinese market.

Despite the global economic crisis that had severe impacts on the automobile sector, Fiat introduced new models as Punto Evo, 500C cabriolet, and Fiat Doblò. It also expanded the offer of bi-fuel cars (Punto Classic, Idea, Qubo, Panda, Grande Punto and Bravo). Also Alfa Romeo and Ypsilon that year launched versions of already existing models but with a lower environmental impacts as 105 hp and 135 hp MiTo 1.4 MultiAir and the ECOchic Ypsilon and Musa.

In 2010 due to the end of the government incentives the sales of the Group in Europe decreased of -10,7%, the deliveries contracted of 15,1% with reduction to realign dealer inventory levels to market demand. In Brazil instead Group maintained its leadership position with the total deliveries which increased 1,6%. During the year, Fiat and Chrysler continued their process of integration and collaboration; with regard to vehicle and spare parts distribution in Europe, in April FGA started commercial activities to support the sale and service of Chrysler, Jeep and Dodge branded products in several European markets and in May the two companies began the reorganization of the dealer network for Chrysler and Lancia brand products, including integration of Chrysler's European distributors into the Fiat organization.

Due to the dramatic market situation during 2010, Fiat Group rescheduled new important launches for the second half of 2011. This year were introduced some variations of already existing models as the 500 and 500 C equipped with new engines (30% reduction in CO2 emissions), Doblò Natural Power, Fiat Bravo with Euro 5 engine and Fiat Panda for the 30<sup>th</sup>

anniversary. Fiat also made its return to the North American market in 2010 with the debut of the Fiat 500 at the Los Angeles Auto Show, where it was enthusiastically received. Alfa Romeo introduced Giulietta and launched the new black line collection of MiTo.

In 2011, thanks to the integration with Chrysler, Fiat launched Fiat Freemont, the first Fiat brand model based on a Chrysler platform; while Lancia introduces the new Ypsilon, Thema and Voyager, one year from launch of its product integration with Chrysler brand. In March, in US and in Canada, began the first delivery of Fiat 500, the first Fiat car sold in North America since 1983. In May Fiat increased its interest in Chrysler from 30% to 58%.

In 2012, in January the ownership interest of Fiat in Chrysler increased from 58% to 58,5%. Fiat presented the new Punto, Fiat Freemont AWD, Fiat Strada and 500L. In June the first GAC-Fiat plant was inaugurated in Changsha in China, and the first Fiat model, the Fiat Viaggio has been produced.

In 2013 Fiat unveiled Trekking version of the 500L and the 500L Living and Alfa Romeo presented exclusive Launch Edition of the 4C sport coupé; Jeep gave European premiere of the new Grand Cherokee and Compass, and presented 10th Anniversary special edition of the Wrangler Rubicon. Three Fiat plants, the one in Pomigliano d'Arco, the one in Tychy (Poland) and the one in Bursa (Turkey) received the World Class Manufacturing Gold Level.

The 21 January 2014, FCA US became a 100% owned subsidiary of FCA. During the year, FCA strategy has been the expansion of the Fiat 500 family and other selected economy models; it introduced 500X Crossover. In September the Group launched the Jeep Renagade, FCA's first model designed in US and produced in Italy.

## **GROUP'S REVENUES AND SALES**

This analysis will be focused only on the automobile business of the Group because it is the sector most important and the one which contributed the most to the revenues generation, and a complete analysis will be done for these products.

In order to analyse how crisis affected the Group, in the table below are reported data about the revenues of the car producers. As it is possible to see for all the three car producers, in 2009 the revenues decreased: Fiat Group Automobile registered a – 2,3% of the total revenues, Maserati a -45,6% and Ferrari a -7,4%. After that year, Fiat Group recorded a drop in the years 2012 and 2013 but after that it grew in 2014. On the contrary Maserati and

Ferrari registered a constant increase of the revenues after 2009, the first one from 2007 to 2014 got a +298% while Ferrari a +65%.

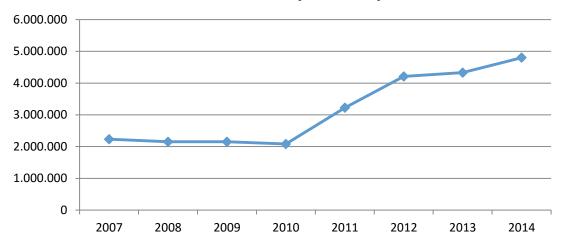
The big introduction during the years after the crisis was the merger with Chrysler. This merger gave to Chrysler the possibility to grow again, thanks also to the better situation in the US market, and it registered an increase in revenues from 2011 to 2014 of 122%.

	Fiat Group Automobile	Maserati	Ferrari	Chrysler
2007	26.812	694	1.668	-
2008	26.937	825	1.921	-
2009	26.293	448	1.778	-
2010	27.860	586	1.919	-
2011	27.980	588	2.251	23.609
2012	27.536	634	2.433	51.202
2013	27.513	1.659	2.335	51.223
2014	28.567	2.767	2.762	52.546

TABLE 80- FIAT GROUP CAR PRODUCERS REVENUES (IN MILLION €)

Near the analysis of revenues it is important to consider the total number of units sold (cars and light vehicles), whose data are reported in the graphic; since 2007 the sales of Fiat Group Automobiles were decreasing; the FGA market share in Western Europe in 2008 was 8,2% (in Italy 31,9%) and in Brazil was 24,9%, in 2010 the market share in Western Europe reached the value 7,5% (30,1%) and Brazil it maintained its leadership position with a MS of 22,8%. After the acquisition of Chrysler in 2011, the total amount of sales of the Group, which became FCA Group, substantially increased. The markets that positively affected the results were the North America market (NAFTA: US, Canada, Mexico) and the Asia Pacific one (APAC), which recorded respectively a growth, from 2012 to 2014, of +23,6% and 132%, on the contrary the European market (EMEA) and the Latin American one (LATAM) recorded worsen results, -3,3% and -15,47% during the same years of analysis. The bad result in LATAM area was especially caused by the situation in Brazil, here the competition continuously increased and the Group was facing problem to keep its profitability, moreover the country set import restriction and this was limiting the possibility to bring new vehicles in Brazil. In Europe the bad situation was caused by the difficult economic situation that all the countries, but especially Italy, were facing; to face this problem Fiat branded cars (Fiat, Abarth, Lancia, Alfa Romeo) were focused on a selected number of models implementing strategies of re-focus and re-alignment.

## **Total sales (in units)**



GRAPHIC 40- FIAT GROUP TOTAL SALES (IN UNITS)

## **GROUP'S STRATEGY**

Giving the difficult economic situation in Europe, the Group took as very important decision the expansion in countries outside Europe, in particular in USA, with the acquisition of Chrysler and in China, thanks to the joint ventures settled with local partners. This gave to the company the possibility to less suffer and to find new possibilities to grow. The Group moreover defined a specific plan for the products, stopping the production of less profitable ones, limiting the range of products and differentiating it in base of the country. In Europe Fiat decided to limit the investments on electric cars, giving the low request and the fewer consumption possibilities of the buyers; while in USA, the Group decided to invest in this field, and the first 500 electric has been produced.

## **GROUP'S RETRENCHMENT STRATEGIES**

## **COSTS:**

In period of crisis, the easiest and more common action is to decrease the costs. In the table are reported the principal costs elements (Cost of sales; selling, general and administrative costs).

	2007	2008	2009	2010	2011	2012	2013
Cost of sales	48.924	49.423	43.261	47.738	50.704	71.474	74.570
Selling,	4.924	5.075	4.296	4.749	5.047	6.731	6.689

general and				
administrative				
cost				

TABLE 81- FIAT GROUP MAIN COSTS (IN MILLION €)

Considering cost of sales the majority of it is made up by cost of materials and components. The remaining costs principally include labour costs, consisting of direct and indirect wages, as well as depreciation of Property, plant and equipment, amortization of Other intangible assets relating to production and transportation costs. Cost of sales also includes warranty and product-related costs, estimated at the time of sale to dealer networks or to the end customer. It is possible to analyse a strong decrease of this voice from the year 2008 to the year 2009, -11,5%, as a consequence of the lower production but also it has been used as leverage to limit the impacts of the crisis. From the year 2010, the costs increased again due to the integration with Chrysler Group and the increase of the sales outside Europe. Considering Selling costs which mainly consist of marketing, advertising, and sales personnel costs and General and administrative costs which mainly consist of administration expenses which are not attributable to sales, manufacturing or research and development functions, also for these costs it is possible to notice, after an increase in the year 2008, a huge decrease in the year 2009, -15,3%, as main reaction adopted to face crisis.

### **INVENTORIES:**

Analysing the inventories of the Group it is possible to understand if this leverage has been used as strategic action, in order to decrease the negative effects of the crisis. Since 2010 in the total inventories are considered also trucks and agricultural vehicles (Fiat Professional), and from 2011 are considered the Chrysler inventories.

	2007	2008	2009	2010	2011	2012	2013
Inventories	9.990	11.346	8.748	8.341	9.123	9.295	10.230

TABLE 82- FIAT GROUP TOTAL INVENTORIES (IN MILLION €)

From 2007 to 2008 it is possible to notice a huge increase in the inventories caused by the lower activities and sales. From 2008 to 2009 a substantial reduction of the inventories was recorded, as the consequence of the considerable steps to reduce costs. In 2011 the quantities increased due to the integration with Chrysler. Concluding, in 2012 and 2013 the inventories grew again thanks to the positive trend which characterize sales and volume in different countries in which the Group operated.

### **EMPLOYEES AND PLANTS:**

In order to understand how crisis affected Fiat Group and subsequently Fiat Chrysler Group, it is important to analyse to total number of plants and employees in the world.

(1)	2007	2008	2009	2010	2011	2012	2013
Italy	56	70	64	44	46	44	45
Europe (excluding Italy)	54	62	57	29	31	33	33
North America	22	19	16	6	47	48	49
Mercosur	24	27	27	18	19	19	19
Other regions	22	25	24	16	12	14	13

TABLE 83- FIAT GROUP NUMBER OF PLANTS

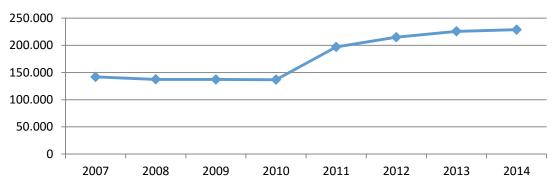
SOURCE: FGA/FCA ANNUAL REPORT

It is possible to notice a decrease in the number of plants in the years 2009 especially in Europe, Italy and North America, this decrease was probably due to the strong effects of the crisis and the reduction of the demand especially in the countries which have been hardly hit. In the subsequent year instead a substantial reduction, in all the countries, of the plants has been recorded due to the separation of Fiat and Fiat Industrial, responsible of trucks and agricultural vehicles production. While in 2011 an increase in number has been registered due to the integration with Chrysler, especially it is possible to notice a huge increase in North America given by the presence of the acquired company in the country. From that year the situation is quite stable.

Focusing on Italian plants, in 2009 the Group announced the closure of Termini Merese plant in Sicily from 2011. In 2010, the Group decided to invest in the G.B Vico plant in Pomigliano, in order to produce the new Fiat Panda and invested in the plant 700 million €. In the same year, it has been approved the plan to relaunch Mirafiori plant with more than 1 billion € of investment for the production of large SUVs for the Jeep and Alfa Romeo brands. In 2012 it was defined a plan for Melfi plant for the production of a Jeep brand utility vehicle and the new Fiat 500X, following an investment plan of 1 billion €. In 2014, the avv. Giovanni Agnelli plant in Grugliasco has been inaugurated where the Maserati Quattroporte and Maserati Ghibli are produced for export to markets worldwide. Fiat invested more than €1 billion in development of the two new models and preparation of the plant for production. Concluding, the total number of pants for automobile production in Italy didn't changed over the years.

Considering now the total number of employees, in 2008 they were 140.200 employees which worked in Fiat Automobile Group, Ferrari, Maserati, FPT Powertrain technologies, Magneti Marelli, Comau, Teksid.





GRAPHIC 41- FIAT GROUP TOTAL EMPLOYEES

(1) In the total number of employees are considered the ones of Fiat Automobile Group, Ferrari, Maserati, FPT Powertrain technologies, Magneti Marelli, Comau, Teksid and from 2011 Chrysler (FCA US).

In Italy in the first half of the year 2008 the increase in production allowed the Group to convert more than 900 fixed-term employment contracts to unlimited term contracts and to take on about 370 youths under professional apprenticeship contracts. Conversely, to deal with the drop in business volumes experienced in the second half, many plants reduced weekly shifts and five-day work weeks were reinstated at most plants which had previously been operating on a longer work week. A six-day work week remained in effect only for certain areas of activity and for a limited number of employees. In addition to having reduced the number of employees with fixed-term contracts and agency workers in most Group plants, it was also necessary to use ordinary temporary layoff benefit scheme in Italy (Cassa Integrazione Guadagni Ordinaria). Production stoppages reached the peak level in November and December. Also outside Italy, various measures were necessary to deal with the significant drop in volumes in the latter part of the year, including production stoppages and a reduction in the number of fixed-term and agency workers. In 2009 reductions in headcount were reported in almost all countries where the Group operates. Those reductions were more significant in the first half of the year and were primarily attributable to the fall in production volumes. For FGA, government initiatives in the form of eco-incentives to consumers adopted in many European countries during 2009 to stimulate demand had a positive flow-through effect including for some of the Group's Italian plants, resulting in a reduction in the use of the

temporary layoff benefit scheme. In 2010 the automobile sector recorded a decline in volumes following the elimination of eco-incentives, which had sustained demand in 2009, in Europe. In Italy, Group companies continued to make extensive use of temporary layoff benefit schemes in managing production levels, although with a reduction of approximately 20% over the previous year. Outside Italy, recourse to production stoppages continued to be necessary in 2010, however, the use of "Chômage partiel" in France, "Expediente de Regulacion de Empleo" in Spain and "Kurzarbeit" in Germany fell approximately 40% over the prior year. During 2011, conditions remained extremely varied from market to market, with North America being the only region to demonstrate signs of recovery from the dramatic contraction in demand first evidenced at the end of 2008. In Italy, the auto sector underwent a further contraction and all Group companies, with the exception of Comau and Ferrari, increased utilization of temporary benefit schemes to manage the impacts of reduced production levels. Several agreements were concluded during the year in Italy to reduce personnel who qualify for retirement during the period of mobilità. The Group was able to convert more than 5,000 employees worldwide from temporary to unlimited term contracts.

During 2012, auto markets in both North and South America showed significant signs of improvement. In Europe, by contrast, demand contracted for the fifth consecutive year with particularly negative consequences for Fiat Group manufacturing activities in Italy. For Chrysler Group, vehicle production continued to expand in 2012 in response to strong customer demand, the increase was facilitated by the implementation of additional shifts at the Belvidere and Jefferson North assembly plants in the U.S., as well as increases in production rates and overtime hours at most manufacturing facilities. In Italy, extensive use of temporary layoff benefit schemes enabled the Group to manage production declines and to undertake restructuring and reorganization activities related to investment in new production without resorting to permanent redundancies. In 2013, the Group's earnings results once again reflected the benefits of geographic diversification. In Europe, the significant contraction in market demand had an impact on production levels; in Italy, in particular, the use of temporary production stoppages was necessary. However, the Group maintained its policy of protecting jobs through the use of temporary layoff benefit schemes, where possible, or other mechanisms provided under collective bargaining agreements or company policy. Chrysler Group increased vehicle production at its NAFTA facilities in response to increased product demand. Staffing levels were increased to support higher output levels, including manufacturing employees to support current and anticipated

production volumes, as well as additional engineering, research and development and other highly-skilled employees to support product development, sales, marketing and other corporate activities.

#### **DEBT COMPOSITION:**

	2007	2008	2009	2010	2011	2012	2013
Bonds	7,066	7,036	11,397	9,019	11,684	12,716	14,466
Borrowing	2,722	6,366	8,394	6,657	7,583	8,139	8,652
from banks							
Payable	163	110	384	247	4,957	4,873	4,532
represented							
by							
securities							

TABLE 84- FIAT GROUP DEBT BREAKDOWN (IN MILLION €)

Analysing the composition and the evolution of the debt of the Group, it is possible to conclude that in the year 2008 and 2009 the Group registered a raise in the debt level mainly due to the increase of the borrowing and the increase of the bonds, partially offset by repayment of bonds. Subsequently, after a partial decrease in the year 2010 due to the demerger with Fiat Industrial, the Group recorded a growth in the level of bonds issued, borrowings from banks and payables represented by securities, caused by the integration with the US Group. The voice that raised mostly is the payable represented by securities which includes the VEBA Trust Note of €3,908 million, which represents Chrysler's financial liability to the International Union, United Automobile, Aerospace, and Agricultural Implement Workers of America ("UAW") Retiree Medical Benefits Trust ("VEBA Trust") having a face value of \$4,836 million (€3,738 million). This financial liability was recognised by Chrysler in connection with the settlement of obligations related to postretirement healthcare benefits for certain UAW retirees. During the years changed the composition of these debt elements; as far as concern the bonds issuing, the bonds which are issued mostly are the one which must be due between one and five years, but it is possible to notice a boost of bonds due over five years, due to the inclusion of Chrysler in the scope of consolidation. Considering instead borrowings from banks, increased the importance of medium long term debt, the Group raise the borrowings due between one and five years and the ones over five years.

## **GROUP'S INVESTMENT STRATEGIES**

## **RESEARCH AND INNOVATION:**

To promote sustainable mobility on multiple fronts, the Fiat Group conducted its research and innovation activities through the Centro Ricerche Fiat (C.R.F.) and Elasis (until the year 2011). In 2011 in addition, with Fiat's increasing ownership interest in Chrysler, activities between the two have been expanded from development of shared platforms and models to also include plans for a shared research and innovation program. As a result, in March 2011, CRF reorganized its research and development activities and created a new FGA-Chrysler Innovation & Methodologies Synergies unit whose main task is to facilitate bi-lateral sharing and coordination. In 2012, the Group launched the Global Innovation Process (GIP), which establishes a single framework for the coordination of all innovation activities worldwide. Developed by representatives from each of the Group's Regions and coordinated by Fiat's research centre (CRF), the GIP covers all phases of the innovation process, from idea generation to pre-competitive development.

Analysing data, Fiat decreased the amount of R&D expenses in 2009, but after that year, also thanks to the acquisition of Chrysler, in 2011, the investment in research and development is increasing.

	Fiat (1)	Maserati	Ferrari	Chrysler		
2007	1.055	54	147	-		
2008	1.268	47	164	-		
2009	1.066	33	156	-		
2010	1.108	62	148	-		
2011	1.182	113	143	764		
2012	1.197	115	145	798		
2013	1.251	120	147	1.080		
2014	2.537					

TABLE 85- FIAT GROUP R&D EXPENSES (IN MILLION €)

SOURCE: FGA/FCA ANNUAL REPORT

(1) Are considered also the R&D expenses of Comau, Teksid, Magneti Marelli and FPT Powertrain Technologies

Also analysing the data about the total number of R&D centres, it is possible to notice that, at the end of year 2010, the number of centres decreased substantially, due to the separation of Fiat ad Fiat Industrial; moreover after 2011 and the integration with Chrysler, the total number of centres increased again, especially the one in North America, due to the presence of the acquired company in the countries.

(1)	2007	2008	2009	2010	2011	2012	2013
Italy	49	50	48	30	38	37	35
Europe (excluding Italy)	32	33	33	13	13	15	16
North America	14	15	15	3	16	16	17
Mercosur	10	10	10	5	5	5	5
Other regions	9	10	11	7	5	4	5

TABLE 86- FIAT GROUP NUMBER OF R&D CENTRES

(1) Until the year 2009 in the total number of plants are considered also the one of Fiat Industrial (trucks and commercial vehicles and trucks and industrial equipment).

C.R.F. applies a systematic approach to developing innovative solutions which embody a 360 degree concept of sustainability, especially focusing on three different aspects: powertrain research and technology, mobility and safety, and advanced vehicles, materials and processes. These topics include reducing emissions through innovative engines, as well as improving fuel efficiency through downsizing and enhanced aerodynamics, info mobility, the use of recyclable environmentally-friendly materials, and extending even to reducing traffic congestion and noise and ensuring that manufacturing processes are eco-compatible.

In the table are reported all the innovation and all the projects of R&D on which Fiat, and later Fiat and Chrysler are focusing.

2008	2009	2010
Powertrain Research and Technology	Powertrain Research and Technology	Powertrain Research and Technology
→ Multijet II (cutting fuel	→ Fire MultiAir engine	→ After-treatment
consumption and	(electro-hydraulic	technologies for Euro
emissions)  MultiAir (decrease	valve management system which	6 diesel engines  → Second generation
emissions)	decrease fuel	MultiAir technology
→ Hybrid city car	consumption and	for gasoline engines
propulsion system	pollution)	→ Twin Clutch
	→ Turbo twin-cylinder	Transmission on the
Mobility and Safety	CNG engine with	Alfa Romeo MiTo
Driving advisor	MultiAir technology	
	(decrease pollution)	Mobility and safety
Advanced vehicles, materials	→ New S30 F1C 3.0-litre	Cooperative
and processes	Bifuel TC engine	preventive safety
→ Low environmental	(CNG/gasoline)	systems
impact air	(operate on gasoline	(collaboration
conditioning system	as backup in the	between vehicles and
Environmentally	event that CNG	vehicle-

friendly	and	recycl	ed
plastic			

→ Eco factory: energy efficiency in production

refuelling is not readily accessible)

## **Mobility and safety**

- → Active/passive safety systems integrated with info mobility technology
- → ABS Supersteer<sup>™</sup> system

# Advanced vehicles, materials and processes

 Materials for lighter vehicles, Environmentally friendly and recycled materials infrastructures)

→ Low environmental impact auxiliary systems (to increase efficiency but decreasing emissions and consumption of auxiliary systems)

## Advanced vehicles, materials and processes

- → Eco-compatible and recycled materials
- → Highly energyefficient production processes
- Micro and nanotechnologies for plant safety

#### 2011 2012 2013 **Environmental sustainability Innovative products for** Research innovation and → Application of MultiJet sustainable mobility sustainable mobility II Injection Rate → TwinAir (65 hp → Chrysler Group's eight-Shaping (IRS) naturally-aspirated, speed rear-wheel-drive technology to 2.0L and 105 hp turbo) (lower automatic transmission 3.0L V6 diesel engines emissions) (fuel economy (cutting fuel → 85 hp 1.3-liter MultiJet improvement) consumption and II with eco turbo → the MultiJet II with emissions) (lower consumption **Injection Rate Shaping** → MultiAir modular and emission) was extended to the application (decrease → Alternative fuels and entire range emissions) propulsion systems → High-Strength Steels → Optimization of on-(natural gas, biofuel, → Sustainable materials board energy use alternative propulsion → Eco: Drive → Weight reducing system Fiat 500e) materials (austenitic → Innovative vehicles steel) architecture (High-Strength Steels (HSS)) Economically-sustainable → Promoting Eco-Sustainable driving competition → Innovative content (Eco Drive) → Sustainable materials (SOFIA project) → Comfort and perceived (reduce weight, use of quality (CAMMI biomaterials, project) alternative uses for → Process and product materials recovered at competitiveness end of vehicle life)

## (FGA's Manufacturing Engineering unit)

TABLE 87- FIAT GROUP INNOVATIONS PROJECTS

Analysing all the research and innovation activities, it is possible to conclude that Fiat Group and Chrysler have always been focused on improving the efficiency of conventional engines, increasing the use of alternative fuels, developing alternative propulsion systems and encouraging drivers to play an active role in reducing emissions. The commitment in increasing the sustainable mobility, by decreasing fuel consumption and CO2 emissions is quite high and in Europe, Fiat Group Automobiles (FGA) has reduced average CO2 emissions of Fiat, Alfa Romeo, Lancia and Abarth brand vehicles by 21% over the past 10 years. While Chrysler, in US, in 2013 decreased the 8% of CO2 emissions over the past year. Fiat Group strategy is oriented in the use of alternative fuels to reduce emissions and the main one used is the natural gas; with 12 natural gas/gasoline models available the Group is the only automaker to offer a full range of bi fuel passengers cars. Taking advantages form Fiat experience, in 2012 Chrysler launched the first natural gas pick up in North America.

Due to the weak European market and due to the stronger US one, and due to the fact that there are economic, geographic and fuel requirements differences in the markets, Fiat decided not to invest in electric cars in Europe, but to invest in the America one, so in 2012 the first Fiat electric car 500e has been produced, its first zero emissions electric vehicles for the mass market. Chrysler's research is focused on overcoming the technological and cost barriers that still limit the mass-market potential of electric vehicles, because even the most effective technologies cannot have a significant impact on the environment if they are too expensive to reach a sufficiently large number of people.

## **CHRYSLER ACQUISITION**

A fundamental decision performed by Fiat in order to improve and overcome the difficult economic situation has been the acquisition of Chrysler, already described. This acquisition allowed the two Groups to share resources and infrastructures and to set joint venture, in order to decrease cost and get a better financial and market position. This acquisition got important results, for both companies; these results will be analysed in the following section.

## **SUMMING UP**

## RETRENCHMENT STRATEGIES

## **INVESTMENT STRATEGIES**

Costs reduction in 2009: Cost of sales (-12,46%), Selling, general and administrative exp (-15,34%)	Chrysler acquisition
Stock reduction from 2009: -22,8% (2009)	Investment in R&D and innovation
Reduction of employees in 2009 :-0,1%	Differentiated strategies and modules for different markets ( 500 E in US)
Reduction in the number of plants in 2009 :-7,3%	Internationalisation
Reduction of models> focusing	

## THE RESULTS

### PROFITABILITY INDICATORS

## 1. Return On Equity (ROE)

Formula:  $\frac{Net income}{Shareholders' equity}$ 

**Description:** it measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested

M€	2007	2008	2009	2010	2011	2012	2013
Net	2.054	1.721	-848	600	1.651	1.411	1.951
income							
Equity	11.279	11.101	11.115	12.461	12.260	13.173	12.584
ROE	0,18	0,15	-0,076	0,048	0,13	0,11	0,15

TABLE 88- FIAT GROUP ROE EVOLUTION

**Comment:** analysing the evolution of the ROE, it is possible to notice that it is always positive except in the year 2009, in which the net income recorded a negative result. Except in the years 2009 and 2010 the ROE recorded better results, higher than the average monetary market return. Crisis and the choices of the company had modified completely the ability to generate profitability, recording in the last years worsen results than before year 2008.

## 2. Return on Investment (ROI)

 $Formula: \frac{\textit{Operating income}}{\textit{Total assets}}$ 

**Description:** it measures the profitability of the operating activities of an enterprise compared to the invested capital

M€	2007	2008	2009	2010	2011	2012	2013
Operating	3.152	2.972	378	992	2.392	3.814	3.394
income							
Total	60.136	61.772	67.235	73.442	80.031	82.119	86.774
assets							
ROI	0,052	0,048	0,0056	0,013	0,029	0,046	0,039

TABLE 89- FIAT GROUP ROI EVOLUTION

**Comment:** as for the ROE, ROI recorded bad results in the years 2009 and 2010, especially due to the dramatic decrease of the operating income, which in 2009 reached its lowest result. After that year the situation got better thanks to the

acquisition of Chrysler and the refocused on the main activities. From 2007 total assets have continued to increase, while on the contrary operating income recorded a dramatic decrease in the central years of the crisis.

## 3. Return On Sales (ROS)

Formula: Operating Income
Revenues

**Description:** it evaluates the company's operational efficiency and it calculates how much profit is being produced per € of sale

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	3.152	2.972	378	992	2.392	3.814	3.394
Revenues	58.529	59.380	32.684	35.880	39.559	83.957	86.816
ROS	0,053	0,050	0,011	0,027	0,058	0,044	0,034

TABLE 90- FIAT GROUP ROS EVOLUTION

**Comment:** considering the sector and the price strategy of the Group the results obtained before and after the two central years of the crisis, 2009-2010, can be considered positive. In average the 95% of the revenues are absorbed by operational costs, and it is possible to notice a decrease of the profit produced per sale in 2009 and 2010, but after that year profit and income increased considerably and the index almost obtained a result as before crisis.

## LIQUIDITY INDICATORS

## 4. Current Ratio

Formula: Current assets
Current liabilities

**Description:** it measures the liquidity of a company, and it evaluates company's ability to pay short term obligations

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	37.741	36.892	41.669	29.777	36.488	36.587	39.154
Current liabilities	28.280	28.978	28.757	33.665	30.012	30.149	33.316
Current	1,33	1,27	1,45	0,88	1,22	1,21	1,18

Ratio				

TABLE 91- FIAT GROUP CURRENT RATIO EVOLUTION

**Comment:** this indicator to be considered good should be higher than one, and Fiat Group obtained always a positive result except for the year 2010, due to the effects of the crisis on the market and due to the separation with Fiat Industrial, which decreased the current assets. The Group in any case recorded lower short term debt and this led to a higher and positive ratio over the years under analysis.

## 5. Quick Ratio

Formula:  $\frac{Liquidity}{Current\ liabilities}$ 

**Description:** it is an indicator of short term company's liquidity. It measures a company's ability to meet short term obligations with its most liquid assets.

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	27.751	25.546	32.921	25.334	27.365	27.292	28.924
Current liabilities	28.280	28.978	28.757	33.665	30.012	30.149	33.316
Quick Ratio	0,98	0,88	1,14	0,75	0,91	0,90	0,86

TABLE 92- FIAT GROUP QUICK RATIO EVOLUTION

**Comment:** this index should be close to one to be good, as in the year 2007, after that year the index recorded lower results, except for 2009 when the liquidity substantially raised and so the index reached 1,14%. The company can cover the great part of the current liabilities with the only receivables and liquidity.

### 6. Indebtedness level

Formula:  $\frac{Total \ assets}{Equity}$ 

**Description:** it measures how much the assets are financed with the equity

M€	2007	2008	2009	2010	2011	2012	2013
Total assets	60.136	61.772	67.235	73.442	80.031	82.119	86.774
Equity	11.279	11.101	11.115	12.461	12.260	13.173	12.584
Indebtedness level	5,33	5,56	6,04	5,89	6,52	6,23	6,89

TABLE 93- FIAT GROUP INDEBTEDNESS LEVEL EVOLUTION

**Comment:** to be considered good the index should be lower of almost two, but Fiat Group, on the contrary, recorded in all the years an higher result, especially after 2008. This is due to the fact that the equity is used to finance the non-current assets which are more or less 1/3 of the total assets, and the remaining non-current and current assets are financed by third parties loans.

## **MARGIN ANALYSIS**

## 7. Treasury Margin

Formula: Liquidity - Current liabilities

**Description:** it evaluates the ability of the company to repay short term debt through

the liquidity

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	27.751	25.546	32.921	25.334	27.365	27.292	28.924
Current liabilities	28.280	28.978	28.757	33.665	30.012	30.149	33.316
Treasury margin	-559	-3.432	4.164	-8.331	-2.647	-2.857	-4.391

TABLE 94- FIAT GROUP TREASURY MARGIN EVOLUTION

**Comment:** this index, in all the years except for 2009, is substantially negative. This can be a problem in case of necessity because the liquidity is not enough to cover the current liabilities; the company, in case, should touch the current assets, touching in this way the process. The value in 2007, before the crisis, recorded the best result and it got worse after that year, reaching the lowest in 2010, mainly due to a dramatic decrease of the liquidity and an increase of the current liabilities.

## 8. Structure Margin

**Formula:** Equity – Non current assets

**Description:** it measures how equity finances the non-current assets

M€	2007	2008	2009	2010	2011	2012	2013
Equity	11.279	11.101	11.115	12.461	12.260	13.173	12.584
Non-	22.312	24.843	25.484	17.302	43.477	45.477	47.611
current							
assets							
Structure	-11.033	-13.742	-14.369	-4.841	-31.217	-32.304	-35.027
margin							

**Comment:** in all the years under analysis the company registered a negative structure margin, due to the fact that the equity is always lower that the non-current assets. Before Chrysler acquisition the non-current assets, not covered by equity, were covered by non-current liabilities, so long term debt; but after the acquisition, the company had the necessity to increase the long term debt and the short term debt, due also to the fact that the equity as been quite stable during all the years.

## 9. Net Working Capital

Formula: Current assets - Current liabilities

**Description:** it is used to determine the availability of a company's liquid assets by subtracting its current liabilities

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	37.741	36.892	41.669	29.777	36.488	36.587	39.154
Current liabilities	28.280	28.978	28.757	33.665	30.012	30.149	33.316
Net working capital	9.431	7.914	12.912	-3.888	6.476	6.438	5.838

TABLE 96- FIAT GROUP NET WORKING CAPITAL EVOLUTION

**Comment:** the net working capital has always registered positive results, except in the year 2010 where the margin was negative. The positive result is good for the company because in case of necessity to cover the current liabilities are sufficient the current assets, and it is not necessary to establish new loans with third parties.

## **GROUP'S OVERVIEW AND HISTORY**

PSA Peugeot Citroen Group has been created by the merger of Citroen S.A. and Peugeot S.A. during 1976. The Group is composed by the automobile brand Peugeot, Citroen and DS, by Faurecia, an equipment manufacturer, by Gefco, a logistic group and by Banque PSA Finance.

In 2008 the global automobile market collapsed and the Group registered a reduction of 5,4% of sales worldwide. In Western Europe its position was maintain stable with a market share of 13,8%. The European car and light commercial vehicle market fell 8,8% and the registration contracted to 2,130,900 units (-8,6%), of which 1,125,700 Peugeot and 1,005,200 Citroen. In France the Group's car and light commercial vehicles registrations rose by 1,9%, in a market down 0,6%. In Central and Eastern Europe the Group registrations declined by 3,3%, in a market that declined 1% over the year. In Latin America the demand of automobile rose by 2%, and the registration of both Peugeot and Citroen increased of 5,4%, reaching a market share of 5,4%. In the Mercosur countries, where the Group in 2001 inaugurated a production plant in Porto Real, Brazil, the registration grew 11,9%, increasing the market share to 7,2%. In China the Dongfeng Peugeot Citroen Automobile reported a decline in the registration of 14,1% from 2007. However, the year also saw the successful launch of the new Citroën C-Elysée, which enabled the brand to double its sales in the mid-range segment. During the year the Group, with the brand Peugeot, launched the restyled 407, which saw sales fall sharply 81,700 units. Citroen brand during the year, launched the five seat C4 Picasso "visiospace", which was the leader in Western Europe compact segment and the Citroen C5 in a Sedan version and in a Touren version, which exceeded the sales objectives with 87,500 units sold.

In 2009 the Group increased their worldwide market share to 5,1% but their sales decreased 2,2%. In Europe the registration of the Group contracted 3,8% to 2,192,000 units, of which 1,153,500 Peugeot and 1,038,500 Citroen. This year was shaped by the introduction of incentives that significantly boosted demand in 13 countries in Europe. In France the Group's market share rose to 32,2%, representing an increase of 7,1%. In Central and Eastern Europe the market conditions were very difficult, and the registrations collapsed -34,3% to 97,900 units. In Latin America the Group recorded a negative year, with registrations which contracted -10,1%; only in Brazil the demand remained very strong with a market share

stabled at 5%. China, instead, recorded a strong growth driven by the Government subsidies. Group sales rose 52% led by the successful launch of the Peugeot 207 hatchback and notchback, and the Citroën C-Quatre and C-Elysée. In Russia the registration decreased -30%, due to the negative effects of the crisis on the consumption. During the year, the Group stopped the production of Peugeot 1007, and it launched the new Peugeot 206+, and it expanded its market coverage by introducing two models: one crossover Peugeot 3008, and one compact MPV model Peugeot 5008.

In 2010 the global automobile market rose 10%, and the registrations of the Group increased by 13%. In particularly, in Europe the registration of PSA Peugeot Citroen decreased -0,9% and it was affected by a further scale-back in scrappage incentives in France and the elimination of similar schemes in Germany and Spain. The importance of the international market increased during the year with the sales outside Europe which accounted the 39% in 2010, while in 2009 were 32%; this sustained expansion confirmed PSA Peugeot Citroën's commitment to its priority growth regions of Latin America, China and Russia, while demonstrating that its ambition of becoming more global is being realized. In Latin America the Group sales increased 26,7%, driven by introduction of the Citroën C3 Aircross (in September) and the Peugeot Hoggar pick-up (in May), along with a more aggressive sales strategy adapted to local markets. In China sales grew 38%, reaching 375,700 vehicles, while in Russia the registrations boosted +37%, following the start-up of local production of Peugeot 308 and 4007, and the Citroen C4 and C-Crossover. Successful launches during the year included the new Citroën DS distinctive line, which debuted in March with the Citroën DS3, and the new Peugeot RCZ, introduced in May, following the Peugeot 3008's launch in April 2009.

In 2011 the world's automobile market expanded by 3%, while the sales of the Group's automobile division contracted -1,5%. The sales outside Europe increased again, reaching the value 42% of the total sales. In Europe the sales decreased -6,8% and the Group's market share fell by 0,9 points. In Latin America the sales raised by 10,7%, and the market share widened to 5,5%; the launch of two local-manufactured models – the Peugeot 408 and Citroën C3 Picasso – contributed significantly to this performance and reaffirmed the Group's commitment to expanding its presence in the region.

The growth of the Chinese market slowed down, but maintaining always a positive result +3,3%, especially thanks to the launched of two new models, the Peugeot 308 and 508, which,

with the introduction of Citroen C5, extended the brand offer in the market. The Russia market continued to grow, and the Group registrations increased +35%; sales were sustained by the launch of the new Citroën C4 and the restyled Peugeot 308, both assembled at the Kaluga plant. During the year the Group increased the proportion of premium vehicle sales, introducing in the Citroen DS line the DS4.

In 2012 the Group sales recorded a -16,5%, due to the suspension of sales of CKD units in Iran, following the strengthening of international sanctions and resultant funding difficulties affecting payments, impacted on Group sales in 2012. During the year General Motors and PSA Peugeot Citroën announced the creation of a global strategic alliance. The alliance is structured around two main pillars: the sharing of vehicle platforms, components and modules and the creation of a global purchasing joint venture for the sourcing of commodities, components and other goods and services from suppliers, in order to achieve cost savings, gain efficiencies, leverage volumes and advanced technologies, and reduce CO2 emissions. In Europe the market declined -8,6%, and the Group market share decreased to 12,7%, compared to 13,3 of 2011. In China the Group sales increased 9,2% and the market share reached 3,5%; the two joint ventures, Dongfeng Peugeot Citroën Automobile and Changan PSA Automobile, had both positive results, with planning to launch new vehicles in next years. In Latin America the Group sales were down -8,2%, with Brazil which get the worsen results, while sales in Argentina grew 4,4%. In Russia the sales continued to grow +7,4%, mainly due to the 2012 launches: Peugeot 408, 508, 4008 and Citroën C4 Aircross, DS4 and DS5.

In 2013 the Group opened, in joint venture with two Chinese producers (Dongfeng Peugeot Citroën Automobiles, Changan PSA Automobile Co) two new plants in order to increase sales' offensive increasing the number of offered cars. In the same year, due to the dramatic situation of the European market the production plan in Aulnay-sous-Bois, in France, has been closed definitely. During the year the Group worldwide sales fell of -4,9%; in particular the European market dropped by 1,6% and its market share decreased from 12,7% (2012) to 11,9%. In China, became the second biggest market after France, the Group's sales increased 26,1%, driven by the launches of Peugeot 3008, Citroen C4L, Peugeot 301 and Citroen C-Elysée. In Latin America the situation differed from country to country, but in the complex the Group gained +7%. The Brazilian market fell -1,5%, despite the elimination of the tax on industrial products and the aggressive offer strategy; on the contrary in Argentina sales grew +25,5%, and the Group successfully launched Peugeot 208 and Citroen C4 Lounge. In Russia the economic situation was in a situation of slowdown and the registration of the Group

experienced a decline of -5,4%; also market share decreased 0,3% reaching the value 2,3%. During the year the Peugeot brand launched new vehicles which are the urban crossover Peugeot 2008 and the Peugeot 308; while Citroen launched the new C4 Picasso and Grand C4 Picasso.

## **GROUP'S REVENUES AND SALES**

In order to understand what happened to PSA during the years of the crisis, it is important to understand how revenues and units sold changed.

First of all are reported the data of the revenue of the Group. In 2008 the Group revenues were split for the 76% in the Western Europe, for the 8% in Central and Easter Europe, for the 7% in Latin America and for the 9% in the rest of the world. In 2008 the revenues decreased of -8,5%. The demand reduction has been particularly strong in Spain, lately in United Kingdom and Italy; in France the decline was less pronounced because the demand was buoyed by fee bate system introduced in early 2008 to encourage the purchase of fuel efficiency vehicles. Demand in Central and Eastern Europe slackened throughout 2008, while the Chinese market experienced a difficult year, with sales turning downwards in the second half. In 2009 the automobile revenues decreased again -8,1%; the deterioration of the demand was mixed in Western Europe: in France and Germany the market grew strongly thanks to the Governments incentives, while in Spain and in UK the results were bad. Market in Central and Eastern Europe registered a negative year, and outside Europe, in China thanks to the Government subsidies and the successful model launches the demand grew, while Latin America had a negative year. In 2010 the revenue of the automobile division grew 8,2%, especially supported by demand outside Europe. The demand in China increased of 38%, in America Latina of 26%, while in Europe was down -3,8%. In 2011 the automotive division revenues rose 3,2%, driven by the grow of the markets outside Europe. In Latin America the sales of the Group increased 10,9%; in China they rose 3,3%, while in Europe the sales decrease of 0,9% from the previous year. In 2012 the Group registered a decrease in the total revenue of the automobile division of -10,8%. In Europe the sales continued to decrease due to the recession period and the austerity policies, while outside Europe, in Latin America, in Russia and in China the markets grew. Concluding, in 2013 the Group recorded a fall in the total revenues of -4,8%, with Europe which continued to shrink and countries outside Europe which continued to expand.

	2007	2008	2009	2010	2011	2012	2013
Revenues	45,519	41,643	38,265	41,405	42,710	38,299	36,461
automobile							
division							

TABLE 97- PEUGEOT CITROEN REVENUES (IN MILLION €)

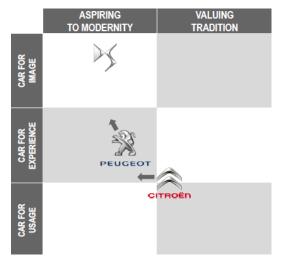
In the following graph are reported the total number of sales of the Group, and as it is possible to notice the sales recorded a huge positive increase in the year 2010 thanks to the positive results outside Europe. Especially in Latin America, where sales have been driven by the introduction of new models and the aggressive sales strategy adopted; in China, where PSA Group's sales rose to a new record high; and in Russia, where the Group gained after the start-up of local production of some models. After two years of units sold quite stable, in 2012 PSA recorded a huge drop in units sold. This drop has been caused by the dramatic decrease of sales in Southern Europe markets, where the Group had a strong presence and which have been hit hardly by the crisis. In addition, the Group's decision to suspend its sales of CKD units in Iran from February onwards, following the strengthening of international sanctions and resultant funding difficulties affecting payments, affected Group sales in 2012. Also in 2013 the situation didn't improve and the sales dropped again.



GRAPHIC 42- PEUGEOT CITROEN TOTAL SALES (IN UNITS)

## **GROUP'S STRATEGY**

The Group decided to give high importance to countries outside Europe, due to the dramatic decrease of sales and revenues in the area. It decided to increase its presence especially in China, Russia and South America. Moreover from 2009 to 2012 the Group decided to redefine the products plan by offering a higher number of premium products and by defining strong



brands with a clear differentiated customer territories; the three main brands Peugeot, Citroen and DS have three different positioning strategy. The DS brand offers innovative and luxury cars for people who want a car for image and for who aspires to modernity; Peugeot shifted in the last years from cars for experience toward cars for image, by increasing the premium cars offered; concluding also Citroen decided in the last years to shift the strategy from cars for

experience but based on tradition, to cars for experience but for people who aspire to modernity.

Moreover in order to decrease costs and maintain the situation under control, the Group decided in 2012 to produce common models for all the countries and to limit the differentiated ones, in this way it is possible to do more focused investments and leverage scale.

## RETRENCHMENT STRATEGIES

#### COSTS:

In the table below, are reported data, from the income statement of the Group, of the costs of sales of goods and services and the selling, general and administrative expenses. The data represent the total costs of the group, so they consider the costs of the automobile divisions, the ones of Faurecia, Gefco and Banque PSA France. In particular it is possible to notice an important decrease in both costs in the year 2009, due to the immediate actions taken in order to answer to the crisis. In 2010 and 2011 the costs increased again, even if the automobile division recorded a reduction in both year of 1,2 million  $\in$  and 557 million  $\in$  respectively in production and procurement costs, through purchasing efficiency, lower depreciation charges and reduction in technical costs. Always considering the automobile division, it reduced selling, general and administrative expenses of 12 million  $\in$  in 2010, while in 2011 they increased of 50 million  $\in$  in 2012 and 2013 costs decreased again; the automobile division in 2013 saved 1,3 million of production costs.

	2007	2008	2009	2010	2011	2012	2013
Costs of goods and services	46,909	44,146	40,156	44,900	49,018	46,781	45,260
Selling, general and administrative expenses	7,007	6,521	5,966	6,238	6,376	5,999	6,027

TABLE 98- PEUGEOT CITROEN COSTS (IN MILLION €)

#### **INVENTORIES:**

An immediate action that the Group did at the beginning of the dramatic years has been the cut of the inventories of finished cars. At the end of the year 2009 inventories have been optimized and they reached the equivalent value of 62 days sales, considered a good result for the Group. In the subsequent two years, especially in 2011, the number of finished cars in stock increased due to new models launches, the inventory in fact reached the equivalent value of 69 days sales. Due to the difficult economic situation Europe was facing, in 2012, the sales and production decreased and to keep the situation under control the group planned to reduce the stock to level before 2010, reaching 416,000 of units in inventory, 65 sales days. Also in 2013, following the defined plan, the stock was reduced again getting 384 units.

	2007	2008	2009	2010	2011	2012	2013
Inventories	604	628	440	445	493	416	384

TABLE 99- PEUGEOT CITROEN TOTAL INVENTORIES (IN THOUSANDS OF UNITS)

## **EMPLOYEES AND PLANTS:**

In the table below are reported data about PS Peugeot Citroen total number of employees and plants:

	2007	2008	2009	2010	2011	2012	2013
Number of employees	9,318	11,272	8,897	4,550	5,353	-	-
Number of plants	327	324	331	375	411	365	364

TABLE 100- PEUGEOT CITROEN EMPLOYEES AND PLANTS

The number of employees and the number of plants have been considered as a strategic leverage in order to limit costs and expenses during the years of low demand. In 2007 and 2008 the number of plants was quite stable, while the number of employees increased, especially outside Europe. From the end of 2008 when the economic situation was getting worse, in France and in Europe, the Group started to adopt the workforce streamlining plan, in which they offered employees who were due to leave the Group in the coming months

or years the opportunity to volunteer to bring forward their departure and also employees who retired or voluntarily left the Group would not be replaced, and incentives would be offered to employees volunteering for internal or external mobility measures. That is why in the year 2009, but especially in 2010, the Group recorded a dramatic reduction of employees. In France the number of employees reduced dramatically in 2009, moving from 6.471 in 2008 to 2.957 in 2009. Always during 2009, the Group, in order to reduce costs and speed up its growth, has entered into cooperation agreements with other carmakers for the joint development of mechanical assemblies or vehicles. These joint ventures enable the partners to share project costs, delivering economies of scale that translate into competitive advantage. A joint venture has been set up in Russia with Mitsubishi Motor Corporation to manufacture mid-range cars for the two partners.

In 2010 the number of employees continued to decrease especially in France and in the rest of the world, while increased in Germany. In France the workforce streamlining plan was always in place and a reorganisation of replacement parts logistic operations was done, and this implied the closure of Melun intermediate warehouse. In the same year, the Group signed a new 50/50 joint venture in China with China Chang'An Automobile Group in order to manufacture and sell passenger cars in China.

Later that year, Faurecia signed an agreement for the acquisition of the Emcon Technologies Group from Emcon Holdings, which is the leading integrator of emissions control technologies.

In 2011 the total number of employees increased again, especially in France and in the rest of the world, while in the rest of Europe decreased. With always the objective to decrease costs and share knowledge, the Group signed a 50/50 joint arrangement (BMW Peugeot Citroën Electrification BV) with the BMW Group for the development and manufacture of hybrid components and hybrid drive technology software. Moreover Gefco acquired the 70% of the Mercurio group, with a call option to speed development of its downstream logistics business, further diversify its customer base and expand its international operations. While Faurecia acquired Madison Automotive Seating, a US-based manufacturer of automotive seating for Nissan models, and the German and Austrian assets of Angell-Demmel, a supplier of decorative aluminium trim to the automotive industry.

In 2012, as mentioned before, the Group signed a strategic alliance with General Motors in order to combined strengths and capabilities and improve their competitiveness in a market which was in 2012, especially in Europe, in difficulties. Moreover the Group's first Chinese

joint venture with Dongfeng Motors was running good and the third plants was ready to be opened in 2013, while the Group's second joint venture in China with Changan was up and running and the launch of DS was going good. During the same year PSA Peugeot Citroen, in order to face the difficult economic situation and in order to optimise its portfolio and allocate resources to developing its core business, disposed of 75% of Gefco to JSC Russian Railways, it disposed car rental firm Citer SA and its Spanish subsidiary Atesato Enterprise Holdings and Exceptional divestment of real estate assets which included the sale of the Group's head office building to a subsidiary of Ivanhoe Cambridge, the sale of the Citroën showroom on the Champs Elysees in Paris and of property in our own network in France and Great Britain. 2013 has been a difficult year especially in Europe, and the Group, to react to this difficult situation, sold its entire participating interest of BNP Paribas in order to improve their cash management. During the year in France, the Group was forced to implement the industrial activity reorganisation and workforce redeployment plan which was presented the previous year, and it includes the following measures: the shutdown of production activities at the Aulnay plant (concerning 3,000 persons); adjustment of the production facilities in Rennes, leading to redeployment of 1,400 workers out of a total of 5,600; a special process for reorienting the Aulnay and Rennes sites towards new industrial and automotive-related activities was established with all the stakeholders concerned.

The Group was continuing to reduce its costs and improve its operational activity, which led to a reduction of 3,600 jobs distributed across all the sites in France. This reduction was achieved through voluntary redundancies.

## **DEBT COMPOSITION:**

In the table are reported data about the current and non-current financial liabilities of the Group (manufacturing and sales companies).

	20	07	20	08	20	09	20	10	20	11	20	12	20	13
	NC	С												
Bonds	2,476	-	2,651	-	3,030	71	2,967	1,373	4,413	79	4,616	960	5,301	834
Finance	314	70	347	83	362	149	295	254	242	155	243	90	194	61
lease														
liabilities														
Other long	1,471	82	1,470	183	5,200	223	4,311	421	2,282	228	2,037	719	1,941	744
term														
borrowings														
Other	-	1,737	-	1,392	-	1,198	-	1,130	-	1,655	-	1,072	-	1,335
short term														
financing														

TABLE 101- PEUGEOT CITROEN DEBT COMPOSITIONIN MILLION €

Since 2009, the Group started to implement its proactive refinancing strategy and conservative liquidity policy in order to meet general financing needs. The main financing transactions of the year have been: Peugeot S.A. obtained a €3 billion 5-year loan from the French State, while in

April, Peugeot Citroën Automobiles S.A. obtained a €400-million four-year bullet loan from the

European Investment Bank (EIB); PSA Peugeot Citroën launched a €575 million Océane convertible bond issue; On 10 July, Peugeot S.A. placed a €750 million 5-year bond issue as part of the programme to strengthen the Group's liquidity and spread debt maturities over a longer period. That's why it is possible to notice a huge increase from 2008 to 2009 of the current and non-current bonds and of other long term borrowings.

On June 2010, Peugeot S.A. launched a €500 million 5.625% bond issue due June 2015.

On the same day, PSA Peugeot Citroën made an offer to buy back €245 million worth of 2001 bonds due September 2011.

On 15 July 2010, Peugeot Citroën Automobiles S.A. obtained a €200 million loan from the European Investment Bank (EIB). The loan is due July 2017 with early repayment possible from July 2013. The proceeds are being used primarily to finance R&D spending.

On 21 October 2010, Peugeot S.A. placed a €500 million 4% 3-year bond issue due October 2013 and a €500 million 5% 6-year bond issue due October 2016. These issues helped to lower the Group's average borrowing costs and to spread its debt maturities more evenly.

On 10 September 2010 Peugeot S.A. made a 1 billion € early repayment of the 5 years loan got from the French state.

On 20 January 2011, the two €500 million bond issues carried out in October 2010 were increased through two tap issues that added €350 million to the issue due October 2013 and €150 million to the one due October 2016.

In early 2011, the Managing Board decided to repay the €2 billion balance of the loan, the repayment was made in two €1 billion instalments on 25 February and 26 April.

On 27 September 2011, Peugeot S.A. launched a €500 million 6.875% bond issue due March 2016.

On the same date, PSA Peugeot Citroën repaid at maturity the €1,255 million worth of 2001 bonds still outstanding.

On 27 October 2011, Peugeot Citroën Automobiles S.A. repaid the €125 million loan obtained from the European Investment Bank (EIB) on 17 October 2006. On 16 November 2011,

Peugeot Citroën Automobiles S.A. obtained a new €125 million loan from the EIB that is repayable in equal annual instalments between December 2013 and December 2017. On 11 April 2012, Peugeot S.A. issued €600 million of 5.625% bonds due July 2017. On 28 February 2013, Peugeot S.A. issued a €1 billion 7.375% bond maturing in March 2018; In September 2013, Peugeot S.A. issued a €600 million 6.5% bond maturing in January 2019; In December 2013, the Group took out a €300 million 2.283% loan with the EIB, maturing in December 2018.

Concluding the main sources of borrowings during the years have been the loan coming from the French State, the numerous bonds that the company issued during the years and the loans received from the European Investment Bank, which helped the company in financing its activities.

## **INVESTMENT STRATEGIES**

### **RESEARCH AND DEVELOPENT:**

In the most two difficult years for the market, 2009 and 2013, it is possible to notice a substantial decrease in the level of R&D expenses. This strategy, together with the reduction of costs and inventory level, represents an action to maintain costs under control.

	2007	2008	2009	2010	2011	2012	2013
R&D	2,072	2,045	1,950	2,075	2,152	2,047	1,885
expenses							

TABLE 102- PEUGEOT CITROEN GROUP R&D EXPENSES (IN MILLION €)

In 2010 the main research and development costs have been oriented in the CO2 emissions reduction. Its strategy is based on three closely related objectives: optimising internal combustion engines, developing micro-hybrid, hybrid and plug-in hybrid technologies and promoting electric vehicles.

During the year, the Group's technological advances in conventional engine technology led to a further reduction in corporate average emissions to 131.8g of CO2/km versus 135.4g in 2009.

The Group worked on these breakthrough technologies:

• The e-HDI micro-hybrid system, offered on the Citroën C4, C4 Picasso and C5 as of late 2010, and on the Peugeot 508 and 308 in 2011.

- The Peugeot i*0*n and Citroën C-Zero electric vehicles introduced in December 2010, which have already recorded 3,000 firm orders.
- The Peugeot 3008 Hybrid4, the world's first diesel hybrid, launched in 2011.

In 2011 the R&D expenses were 156 million € higher, reflecting the Group's globalization drive and its strategy to move the brands further up market. The Group's technological advances ensured that it maintained its environmental leadership in 2011. In the less than 110g of CO2/km segment in Europe, it remains the unchallenged leader with a market share of 23.8%. The Group also reduced its new

vehicles' average emissions to 127.9g of CO2/km from 132g in 2010.

This 4.1g reduction validates the Group's environmental strategy, which is based on three synergistic paths:

- Optimising petrol and diesel engines.
- Developing micro-hybrid, hybrid and plug-in hybrid technologies, with broader deployment of Stop&Start technology.
- Marketing electric vehicles (the Peugeot i*0*n and the Citroën C-Zero brought to market in December 2010).

In 2012 the Group postponed a number of projects as a result of its decision to reduce R&D investments and spending and give priority to certain other investments in a difficult environment. The high level of R&D expenses corresponded to a peak in capital expenditure, primarily reflecting capacity extension at Kaluga in Russia, Porto Real in Brazil and in China, the development of three-cylinder petrol engines and product development.

In 2012, research and development focused in particular on:

• Solutions to reduce carbon emissions with measures to lower vehicle weight, make more energy efficient powertrains with a smaller carbon footprint and pave the way for alternative hybrid and electric powertrains. As Europe's second largest carmaker, PSA Peugeot Citroën confirmed its progress, staying one step ahead in technology and environment through a new family of three-cylinder petrol engines and it remains the world leader in diesel hybrid vehicles. The 3008 HYbrid4, 508 HYbrid4, 508 RXH and DS5 HYbrid4 have already proved very successful with nearly 20,000 sales in 2012.

• The emergence of the connected car with improved driver assistance to further increase safety and comfort, and connectivity solutions that integrate the new ways the customers use their vehicles nowadays.

Research and development led to the launch in 2012 of the Peugeot 208 and 301, the Citroën C- Elysée, two SUVs and the EB engine, and continued to expand internationally, notably in China, LATAM and Russia. This effort also resulted in the Group releasing four hybrid models in 2012, thus becoming Europe's second largest hybrid car maker, with a 14% annual market share growth.

## R&D efforts in 2012 were:

- The Hybrid Air technology, a petrol-compressed air hybrid system that marks a key step towards the 2l/100 km vehicle.
- Its new global modular platform EMP2 (Efficient Modular Platform 2) that provides efficient solutions to modularity, equipment and reduced CO2 emissions.
- SCR (Selective Catalytic Reduction), an innovative technology designed to treat nitrogen oxide (NOx) emissions from diesel vehicles, which will be launched in 2013.

In 2013, after two years of significant investment associated with increasing international capacity, and investment for the EB engines, the Group returned in 2013 to a more usual level of investment. This level enabled the Group to continue its investment in product R&D and innovation, thanks, in particular, to improved efficiency and sharing development costs with partners, including GM through the Alliance.

## In 2013, R&D projects were directed towards:

- Solutions to reduce CO2 emissions: solutions to reduce carbon emissions: measures to lower vehicle weight, make more energy efficient powertrains with smaller carbon footprints and pave the way for alternative hybrid and electric powertrain development;
- Vehicle development associated with renewal of the Peugeot and Citroën ranges: thus the average age of the range is kept at 3.5 years, with 17 launches in 2013. The rate of change will continue, along with significant innovations;
- The emergence of the communicating car with improved driver assistance systems for even greater safety and comfort and work on the connectivity between the driver and vehicle to integrate new clients uses in the cars.

R&D projects continued to expand internationally to such places as China, Latin America and Russia. They resulted in 17 launches in 2013: the new Peugeot 208 XY, 208 GTI, 2008, 308, Partner Electric, the new 5- and 7-seat Citroën C4 Picasso and the DS3 Cabrio, the electric Berlingo; and also specific launches in China (3008 and 301, C4L, C-Elysée and DS5), Latin America (208 and C4 Lounge) and Russia (C4 Sedan). The Group also launched a new engine in 2013: the EB Turbo Tech and the new manual 5-speed and automatic 6-speed gear boxes.

## **SUMMING UP**

Retrenchment	Investment
strategies	strategies
Cost reduction in 2009: Costs of goods and services (-9%), Selling, general and administrative exp (-8,5%)	Internationalisation
Stock reduction: in 2009 -29%	Increase of the premium vehicles
Employees reduction: in 2009 -21%	
Assets disposal: optimisation portfolio and focusing on core business	
Costs sharing through cooperation	
Projects postponement	

## THE RESULTS

### PROFITABILITY INDICATORS

## 1. Return On Equity (ROE)

Formula:  $\frac{Net income}{Shareholders' equity}$ 

**Description:** it measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested

M€	2007	2008	2009	2010	2011	2012	2013
Net	405	-858	-1.627	862	430	-5.216	-2.456
income							
Equity	14.555	13.277	12.447	14.303	14.494	10.557	7.791
ROE	0,028	- 0,064	-0,131	0,060	0,029	-0,494	-0,315

TABLE 103- PSA ROE EVOLUTION

**Comment:** analysing the ROE, it is possible to conclude that the company's profitability is quite low; in particular during the years 2008-2009 and 2012-2013 it is negative due to the negative net income. Net income and equity substantially decreased during the years, reaching the lowest values in 2012-2013, due to the second recession and the difficult economic situation.

## 2. Return on Investment (ROI)

Formula: Operating income
Total assets

**Description:** it measures the profitability of the operating activities of an enterprise compared with the invested capital

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	512	-950	-1.912	1.202	366	-5.072	-1.714
Total assets	40.861	36.008	38.740	42.356	41.836	38.417	35.176
ROI	0,01	-0,026	-0,049	0,028	0,0087	-0,13	-0,048

TABLE 104- PSA ROI EVOLUTION

**Comment:** as for ROE, ROI recorded the same negative results during the years 2009-2010 and 2012-2013, this underlines the difficult economic situation the company is facing, especially in the last two years of analysis, where the indicator reached the

lowest result. This bad result has been caused by the lower sales in Eastern Europe and by the decision to suspend the sales of CKD in Iran.

## 3. Return On Sales (ROS)

Formula:  $\frac{Operating\ Income}{Revenues}$ 

**Description:** it evaluates the company's operational efficiency and it calculate how much profit is being produced per € of sale

M€	2007	2008	2009	2010	2011	2012	2013
Operating income	512	-950	-1.912	1.202	366	-5072	-1.714
Revenues	57.132	52.705	46.885	54.502	58.329	53.860	52.627
ROS	0,0089	-0,017	-0,040	0,022	0,0062	-0,094	-0,032

TABLE 105- PSA ROS EVOLUTION

**Comment:** as for ROE and ROI, ROS recorded negative results in 2008-2009 and 2012-2013 due to the negative operating income. This underlines the incapacity of the operating revenues to cover the operating costs and this means a dramatic productive and management crisis.

## LIQUIDITY INDICATORS

## 4. Current Ratio

Formula: Current assets
Current liabilities

**Description:** it measures the liquidity of a company, and it evaluates company's ability to pay short term obligations

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	18.389	14.399	17.225	19.710	16.550	17.200	15.500
Current liabilities	19.222	16.170	16.146	19.342	18.849	18.971	18.006
Current Ratio	0,95	0,89	1,06	1,01	0,87	0,91	0,86

TABLE 106- PSA CURRENT RATIO EVOLUTION

**Comment:** to be considered good it should be higher than one, and in all the years except for 2009-2010, the value is lower than one. This identifies the incapacity of the

Group to cover the current liabilities with the only current assets (inventories, liquidity), and this can represent a big solvency problem in the short term.

## 5. Quick Ratio

Formula:  $\frac{Liquidity}{Current\ liabilities}$ 

**Description:** it is an indicator of short term company's liquidity. It measures a company's ability to meet short term obligations with its most liquid assets.

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	11.476	6.642	11.865	13.763	9.971	11.007	9.924
Current	19.222	16.170	16.146	19.342	18.849	18.971	18.006
liabilities							
Quick	0,59	0,41	0,73	0,71	0,52	0,61	0,52
Ratio							

TABLE 107- PSA QUICK RATIO EVOLUTION

**Comment:** it is a good result if the index is more or less one, but the Group always recorded results lower than one especially in 2008, 2011 and 2013. This is caused by the lower liquidity and the higher current liabilities recorded in that years, caused by the higher debt level. The company is not able the cover the current liabilities with the only liquidity and so in case it should be necessary the use of current assets, touching in this way the operating activities.

## 6. Indebtedness level

Formula:  $\frac{Total \ assets}{Equity}$ 

**Description:** it measures how much the assets are financed with the equity

M€	2007	2008	2009	2010	2011	2012	2013
Total assets	40.861	36.008	38.740	42.356	41.836	38.417	35.176
Equity	14.555	13.277	12.447	14.303	14.494	10.557	7.791
Indebtedness	2,80	2,71	3,10	2,96	2,88	3,64	4,51
level							

TABLE 108- PSA INDEBTEDNESS LEVEL EVOLUTION

**Comment:** this indicator should be lower than two, but in all the years the company recorded an higher result, and it is increasing during the last years. This is due to the

fact that the equity decreased in 2012 and 2013 in a more dramatic way than the total assets, which are reducing as well. This means that the Group decided to finance the total assets with a lower amount of equity, increasing in this way third parties financing methods.

## **MARGIN ANALYSIS**

## 7. Treasury Margin

Formula: Liquidity - Current liabilities

**Description:** it evaluates the ability of the company to repay short term debt through

the liquidity

M€	2007	2008	2009	2010	2011	2012	2013
Liquidity	11.476	6.642	11.865	13.763	9.971	11.007	9.924
Current liabilities	19.222	16.170	16.146	19.342	18.849	18.971	18.006
Treasury margin	-7.746	-9.528	-4.281	-5.579	-8.908	-6.999	-9.047

TABLE 109- PSA TREASURY MARGIN EVOLUTION

**Comment:** this margin is clearly negative in all years under analysis, reaching the worse result in 2008, due to the low liquidity of that year. In case of necessary this can be a problem because the current liabilities is not covered by the liquidity and in this way the company should touch the current assets and so the operating activities.

## 8. Structure Margin

**Formula:** Equity – Non current assets

**Description:** it measures how equity finances the non-current assets

M€	2007	2008	2009	2010	2011	2012	2013
Equity	14.555	13.277	12.447	14.303	14.494	10.557	7.791
Non-	22.472	21.610	21.515	22.646	25.286	21.171	19.583
current							
assets							
Structure margin	-7.917	-8.333	-9.068	-8.343	-10.792	-10.614	-11.792

TABLE 110- PSA STRUCTURE MARGIN EVOLUTION

**Comment:** as seen before, the company cannot cover all the non-current assets with the only equity, and it is possible to see from the negative results of this index in all the years under analysis. Moreover the index gets worse in the last years, caused by the reduction of the equity. This means that the company in case of economic problems should touch the non-current assets.

## 9. Net Working Capital

Formula: Current assets - Current liabilities

**Description:** it is used to determine the availability of a company's liquid assets by subtracting its current liabilities

M€	2007	2008	2009	2010	2011	2012	2013
Current assets	18.389	14.399	17.225	19.710	16.550	17.200	15.500
Current liabilities	19.222	16.170	16.146	19.342	18.849	18.971	18.006
Net working capital	-833	-1.771	1.079	368	-2.299	-1.711	-2.456

TABLE 111- PSA NET WORKING CAPITAL EVOLUTION

**Comment:** this margin, the net working capital, recorded negative results in all years except in 2009-2010, this is a bad result for the company because it means that the current liabilities are higher than the current assets. In case it is necessary to extinguish the current liabilities, the current assets are not sufficient and it would became necessary to use equity or third parties loans.

After the analysis of the two companies in the automobile sector, one in Italy, Fiat Group, and one in France, PSA Peugeot Citroen, it is necessary to compare the strategies and results of the two companies in order to understand which is the one which got the best performances.

First of all it is important to notice that both companies had their main initial market in Europe, one in Italy and the other in France. This is significant to underline because the two groups, as a consequence of the deterioration of the European market, caused by the eruption of the crisis, continued to search new profitable ones outside Europe. In particular Fiat expanded its business in countries as China, USA, with the acquisition of Chrysler and South America; on the other hand PSA Peugeot Citroen increased its presence in China, with the two joint ventures with Dongfeng Motors and Changan, in South America and in Russia. This openness to foreign markets allowed the two companies not to collapse and to maintain a certain level of sales. Moreover, considering the common strategies adopted by the two multinational corporations, it is possible to notice that both companies decreased the main costs especially in the year 2009, managed better the inventories by decreasing the stock and limiting the units, both Groups postponed the projects less profitable and disposed the assets not fundamental for their business and found ways to improve the free cash flow, in order to decrease the net debt.

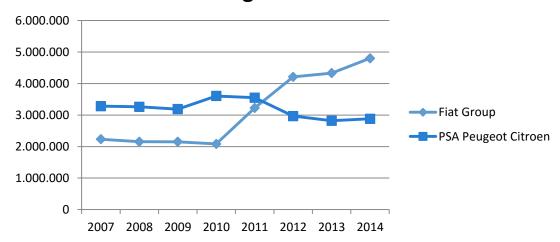
Beyond these same strategies, the two companies had two different answers to the crisis. First of all, Fiat decided to realize the acquisition of Chrysler, the American company; while PSA Peugeot Citroen decided to perform a very different strategy, by improving the brand values of the cars. In particular, Fiat with the acquisition of the US Group, has been able to improve the main indicators and to enhance the sales outside Europe, thanks also to the big increase of sales in the American market. With Chrysler, Fiat has been capable to share technologies, infrastructure and the same models by changing the brand.

On the other hand PSA, since 2010, started to upscale the cars by improving the product mix and increasing the premium vehicles. The main objective of the Group was to move brands up market and to establish strong brands with different customer territories. That's why it positioned the three main brands as: Citroen was moved and it was defined as human, simple and smart; Peugeot was moved upscale and it was defined with the words exigence, allure, emotion; while DS brand, always targeted as car for image, was defined as innovative and

luxury. From 2012 PSA decided to develop new models on a worldwide basis, by limiting the regional specific models in order to establish a larger global platform and to define shared components in a broader variety of models and segments, in order to reduce costs and reach economy of scale.

This two different strategies brought the two companies to obtain different results as it is possible to notice from the graph below.

## Number of units sold Fiat Group-PSA Peugeot Citroen



GRAPHIC 43- COMPARISON FIAT GROUP- PEUGEOT CITROEN UNITS SOLD

Fiat from 2007 to 2010, until Chrysler acquisition, continued to lose sales volume, due to the strong reduction in the European and in particular Italian market. Since 2010 the volumes started growing pulled by the high sales in US. On the contrary PSA registered a decrease in the number of cars sold in 2008 and 2009, followed by a weak increase in the years 2010 and 2011, sustained by the Government fiscal helps, followed by two years of lower sales, characterised by the close of Iran market.

In order to understand more in detail how the two companies reacted in a different ways, in the table below are reported the three most general indicators: ROE, ROI and ROS.

		2007	2008	2009	2010	2011	2012	2013
ROE	Fiat	0,180	0,150	-0,076	0,048	0,130	0,110	0,150
	PSA	0,028	- 0,064	-0,131	0,060	0,029	-0,494	-0,315
ROI	Fiat	0,052	0,048	0,0056	0,013	0,029	0,046	0,039
	PSA	0,010	-0,026	-0,049	0,028	0,0087	-0,13	-0,048

ROS	Fiat	0,053	0,050	0,011	0,027	0,058	0,044	0,034
	PSA	0,0089	-0,017	-0,040	0,022	0,0062	-0,094	-0,032

TABLE 112- FIAT GROUP, PSA GROUP ROE, ROI, ROS COMPARISON

Analysing the data it is possible to conclude that Fiat, compared to PSA Peugeot Citroen, reacted in a better way and obtained better results in the years under analysis. Considering ROE, which is evaluated as Net Income/Equity, in 2007 Fiat started with a much better result, due to the highest Net Income obtained that year (obtained thanks to the other businesses, as Fiat Industrial, included in the Income Statement). Considering also the other years the Italian company got a negative result only in 2009 and after that the situation got better. Considering also the other two indicators it is easily to notice the better results of Fiat Group, which recorded a negative one only during 2009, year of the separation of Fiat with Fiat Industrial. Analysing instead the indicators of PSA, it is possible to conclude that the index are not as good as the ones of Fiat. Since 2007 the situation has been worsen, and the company got negative values in 2008-2009 and in 2012-2013. The first negative period has been caused by the difficult economic situation in the European market, which caused a decrease of the sales in the main countries; while the second was caused by the second recession, which took place always in Europe, worsened by the close of the Iranian market.

Moreover Fiat Group started and concluded the period under analysis in a better situation and position compared to PSA; considering also the other indicators, Fiat had consistently better results than PSA, in terms of liquidity, equity, which substantially cover a great portion of assets, and liabilities, which recorded a decrease of the short term debt and an increase of the long term, in order to sustain the business of the two companies (Fiat and Chrysler).

Concluding it is possible to say that thanks to the better initial situation and the decisions taken during the years under analysis, Fiat obtained better results than PSA Peugeot Citroen, which moreover decided to shift and upgrade its product brands in a period in which people are choosing lower price products, in order to meet their available income. The results of this strategy will be visible in some years, so for the moment it is not possible to say that it cannot be a profitable one.

## 5. CONCLUSION

In this section are reported the conclusions of the thesis work and are reported the validation or not of the hypothesis defined in the *chapter 4*.

First of all considering the first part, it is possible to highlight conclusions concerning the general characteristics of Italy and France, concerning the economic situation and the industry structure. After having analysed the data reported in *chapter 1* and in the *chapter 2*, it has been possible to state that Italy suffered much more the economic recession started in 2008, and it is possible to see this trend in the GDP growth, in the unemployment rate and in the level of households 'consumption, which have worsened during 2008 and 2009, period of the first recession and during 2011 and 2012, period of the second recession. Italy, as France but in a more dramatic way, entered in the second recession, caused by the restrictive public policies put in place by the Government in order to respect the limit on the public deficit imposed by the European Commission. A further important aspect to take into consideration is the industry structure of the two countries as the number of firms per dimension, the number of employees, the level of import and export and the investment level. France is one of the most important economy in Europe and it is mainly composed of companies of average small dimension but there is an higher number, compared to Italy, of companies of big dimension; these companies have been able to drive the French economy out of recession, thanks to the increase of the export toward growing countries. Moreover France has been able to improve thanks to the higher investment level of the companies, supported by the numerous public policies and investment funds defined by the Government. Moreover France, on the contrary of Italy, has been able to limit the credit crunch and the increase of the interest rate, and as it has been possible to see from the data, the long term bank interest rate decreased during the years, and this helped many companies and firms to survive during difficult economic crisis. Concluding France had, during the years under analysis, a better response to the crisis, thanks to the industry structure and the Government policy responses.

Considering the second part of the analysis it is possible to understand if, first of all, the general trend at country level is respected at the company level, so with the French firms performing better than the Italian ones and secondly it is possible to achieve conclusions about the best strategic decisions adopted by the companies, considering the results after the implementation.

The first conclusion that I can define after the analysis of the case studies is that the market, during these difficult years, changed. The market is represented by the consumers, in primis, which changed their purchasing behaviour and their attitude to buy. In fact it has been possible to highlight the attitude of the consumers, which switched their propensity to buy branded products to non-branded ones, and this is especially visible in the food and drink sector. This has been a factor which affected the sales of many brands, and in case of the analysed companies, Parmalat is a clear example. We can see this attitude also in the automotive sector, where it is not possible to buy no-branded products, as it is easy to notice, but in any case the buyers moved their choices from European more sophisticated cars to Asian low cost vehicles, and this caused a dramatic reduction of sales of European branded cars, and it is possible to verify this trend in the two analysed case studies, Fiat Group and PSA Peugeot Citroen. That's why to sustain their revenues, the Groups had the necessity to improve their R&D expense and innovation and find ways to decrease cost in order to maintain their margins, because these two markets are characterised by high competition based on costs, and so in order to be competitive it is necessary to both increase quality and decrease costs.

As it is possible to see from the analysis of the companies, all the four companies tried, in particular during 2008-2009, to decrease costs, especially administrative and marketing costs or decrease the inventory level; for sure these are the easiest leverages which is possible to implement during difficult economic period and these are also the first actions in order to limit the effects of the crisis. The problem of these decisions is that they are only a short term decision and they are not differential, so in order to grow and try to overcome the recession period, this is not sufficient, and more long term based decisions should be implemented. In particular, after the analysis, four strategic decisions have been identifies as necessary in order to survive stronger than before to the difficult crisis and these actions are:

- → Increase internationalisation (to operate in more markets and vary the risk)
- → Increase of the R&D expense
- → Strong financial structure (due to the credit crunch and the high interest rate)
- → Right decisions of acquisition and disposal

Considering the analysis of the case studies and in order to respond to the question posed at the beginning of *chapter 4*, it is possible to state that the food and drink sector, in both Italy and France, recorded the best results in term of turnover, number of closed companies,

number of fired employees and for the increase of the export level. These better results are for sure the consequences of the general characteristics of the sectors, as said in the description of them; in fact the food and drink sector has been less influenced by the crisis, due to the general features of the products, while the automobile one suffered much more, due to the dramatic decrease of the purchasing power of the consumers especially for the durable goods. In fact the analysed crisis has been characterised, as one of the main effect, by the credit crunch, so banks started limiting loans both to companies and to consumers and this affected a lot the automobile sector, which has always been characterised by an higher necessity of credit than the food and drink one. Many consumers in fact, in order to buy a car or a vehicle, often request credit or loans and these have been limited by the banks and, as consequence, the demand and the sales of cars dramatically decreased, influencing negatively the market. It is possible to identify the better performances of the food and drink sector than the automobile one also in the analysis of the companies, and as a consequence Parmalat Group and Danone Group recorded better results during the years than Fiat Group and PSA Peugeot Citroen.

Focusing the attention on the food and drink sector, Danone Group registered more performing results during all the seven years under analysis than Parmalat Group, and this reflect the trend identified at countries level, with France which got better results than Italy. Danone Group has been able to perform much better thanks to the actualisation of all the strategic decisions, identified above as fundamental for the overcoming of the difficult years. In fact Danone, first of all increased its internationalisation level by reaching an higher number of growing countries, which helped the Group to balance the lower sales in Europe; moreover it increased its expenses in R&D, because it identified as vital the creation of new products, which satisfied customers' needs; consequently it has been always characterised by a solid financial structure, and during the years it reduced its gross and net debt levels, and returned to its debt levels consistent with its cash generation capacity; in 2007 it took the most important decision to focus its business on four different markets, which were the dairy products, the beverage products, the medical nutrition and the baby nutrition, and it dismissed a series of brands which were no more profitable and sustainable. This set of decision leaded the company to obtain great results and to be profitable during all the years, as it is possible to confirm from the analysis of the profitability, liquidity and margin indicators. Analysing instead Parmalat Group, on the contrary of Danone, it actualized retrenchment strategies, as the reduction of the costs and the reduction of the inventories, but it didn't put in practice all the five conditions identified as vital to survive. Until 2011 the Group saw a decrease of the sales and of the main indicators, especially due to the bad situation in Italy and Europe; only after 2011, with the acquisition from Lactalis, the new mainly French Group started increasing the internationalisation level, by reaching new countries as USA, moreover it strengthened the financial debt structure and the less profitable brands have been disposed and consequently from that year revenues and turnover increased again.

Considering now the automobile sector, taking into consideration Fiat Group and PSA Peugeot Citroen, it is possible to conclude that in this case the trend recorded at country level, with France performing better than Italy, is not visible at company level. In fact Fiat has been able to get better results thanks to the right decisions implemented. Fiat, during the years under analysis, increased its internationalisation, expanding its presence in China, South America and USA; after 2009 it increased its R&D expense varying the car projects considering the country (i.e. electric cars in USA), moreover it has been always characterised by a strong financial structure and concluding the most important decision implemented by Fiat, which allowed the company not to fail, has been the right acquisition of Chrysler Group. After that acquisition the company had the possibility to share costs and resources with the acquired firm, for example by selling in Europe American cars with the Fiat brand, as Fiat Freemont. Even though after the acquisition, the Italian and European markets continued to decrease, the Group has been able to register better results thanks to the American market which went out the crisis much before and towed sales and revenues. Considering instead the French car producer PSA Peugeot Citroen, it is not possible to notice all the four strategic decisions implemented and this caused bad results in two different periods, 2008-2009 and 2011-2012. In fact the company during the years increased its international presence worldwide, by setting partnership in China, Russia and South America; moreover from 2009 to 2011 it increased the R&D expense, which have been necessary in order to produce new sustainable and safe models; but it didn't performed the right acquisition, which during difficult period could give the company the necessary help and moreover it was not characterised by a strong financial structure, as it is possible to notice from the bad results of the liquidity and margin indicators. The company decided also to change their strategy, by upgrading the models, offering more premium vehicles, and during difficult economic period, where as we said before, consumers changed their purchasing behaviour and decreased the purchase of durable goods, probably it has not be the best decision implemented.

Concluding, the hypotheses and the questions set found an answer in this analysis, and it is possible to state that this recent crisis completely changed the market and the consumers and only if the companies were able to react as soon as possible, implementing not only the retrenchment strategies, which only look at the short term, but also investment strategies, in particular the ones identified, they could have the possibility to overcome the crisis. The implementation of the identified strategic decisions were dependent of course on the dimension and available resources of the companies, and not all the firms had the possibility to implement them, especially the small medium one, and this limited a lot the possibility to survive; for sure the analysed big companies had much more chance to stay in the market and overcome the crisis thanks to the higher resources and the higher easiness to access to new bank credits or to new foreign markets.

## BIBLIOGRAPHY

Achguiga Marouane (2009), 'Il mercato automobilistico e le prospettive del settore con particolare riferimento ai costruttori francesi', *Dossier Adapt* 

Agenzia delle entrate, 'Agevolazione per l'acquisto del veicolo', Agenziaentrate.gouv.it

Anfia.it, Studi e statistiche, available at

http://www.anfia.it/index.php?modulo=view\_studi\_mercato\_italia

Aridas Tina (2013), 'Public deficit/surplus as a percentage of GDP in selected countries around the world, 2007-2014', *Global Finance* 

Banque de France (2015), 'Situation financière et financement des sociétés non financières françaises', *Banque-France.fr* 

Banque de France (2013), 'Les entreprises en France en 2012 : dégradation des performances mais consolidation des équilibres financiers', *Banque-France.fr* 

Bechler Cyprien, Bruno Quille, Marie Sala (2014), 'Diverging trajectories for European automotive industries', *Insee.fr* 

Bonetti M., N. Hadjidimitriou, M. Peroni, A. Zanoli (2007), 'The Food Industry in Italy', *Intensive Program in Business Management cap. 13* 

Bpifrance (2014), 'Les actions de Bpifrance dans le secteur agroalimentaire', bpifrance.fr

Brancati Raffaele (2015), 'Rapporto MET 2015. Strategie per la crescita', Meridiana Libri

Brunnermeir Markus K. (2009), 'Deciphering the liquidity and credit crunch: 2007-2008', *Journal of Economic Perspective Volume 23* 

Buiter W. (2007), 'Lessons from the 2007 financial crisis', *Centre for Economic Policy Research Discussion paper* 

Camera dei Deputati- Documentazione e ricerche (2013), 'Politica economica e manovre finanziarie'

Chastain, C. (1982) 'Strategic Planning and the Recession', Business Horizons

C.C.F.A. France données et infographies, available at <a href="http://www.ccfa.fr/">http://www.ccfa.fr/</a>

C.C.F.A. (2012), 'The French automotive industry', CCFA.fr

Contibuti bec, available at <a href="http://www.bec.mise.gov.it/site/bec/home/contributi.html">http://www.bec.mise.gov.it/site/bec/home/contributi.html</a>

Corrado Canali (2014), 'Auto, tutti i numeri del mercato italiano', Il Sole 24 ore

Courville Leon (2009), 'Socialized risk', Financial Post

Crotty J. (2009), 'Structural causes of the global financial crisis: a critical assessment of the 'new financial architecture'', *Cambridge journal of economics* 

Danone Group Annual Report (2007), available at: <a href="http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration\_Document\_2007.pdf">http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration\_Document\_2007.pdf</a>

Danone Group Annual Report (2008), available at: <a href="http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration Document 2008.pdf">http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration Document 2008.pdf</a>

Danone Group Annual Report (2009), available at: <a href="http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration Document 2009.pdf">http://media.corporate-ir.net/media files/irol/95/95168/DocRef/Registration Document 2009.pdf</a>

Danone Group Annual Report (2010), available at: <a href="http://media.corporate-ir.net/media">http://media.corporate-ir.net/media</a> files/irol/95/95168/DocRef/Registration Document 2010.pdf

Danone Group Annual Report (2011), available at: <a href="http://media.corporate-ir.net/media">http://media.corporate-ir.net/media</a> files/irol/95/95168/DocRef/Registration Document 2011.pdf

Danone Group Annual Report (2012), available at:

http://finance.danone.com/phoenix.zhtml?c=95168&p=irol-reportsannual

Danone Group Annual Report (2013), available at:

http://finance.danone.com/phoenix.zhtml?c=95168&p=irol-reportsannual

Deans G., Kansal C., Mehltretter S. (2009) 'Making a Key Decision in a Downturn: Go on the Offensive of be Defensive?', *Ivey Business Journal Online*, Jan/Feb.

Desiderio Nicola (2014), 'Incentivi auto 2009', Omniauto.it

D'Haultfœuille Xavier, Pauline Givord, Xavier Boutin (2013), 'The Environmental Effect of Green Taxation: The Case of the French "Bonus/Malus", *Insee* 

European Commission, 'Active labour market policies', Ec.Europa.eu

European Commission, 'The financial and economic crisis', Ec.Europa.eu

European Commission, 'Respond to the debt crisis', *Ec.Europa.eu* 

European Commission (2011), 'French national reform programme 2011-2014', Ec.Europa.eu

European Commission, '10 answers to the economic crisis in Europe', Ec. Europa.eu

European Commission (2014), 'Member states' competitiveness report 2014. Italy', Ec.Europa.eu

European Commission (2014), 'Member states' competitiveness report 2014. France', Ec. Europa.eu

European Economic and Social Committee (2011), 'The impact of anti-crisis measures and the social and employment situation', *Ec.Europa.eu* 

European Economy (2009), 'Economic crisis in Europe: causes, consequences and responses', *Ec.Europa.eu* 

European Commission, Economic and financial affair:

 $ec. europa. eu/economy\_finance/explained/the\_financial\_and\_economic\_crisis/why\_did\_the\_crisis\_happen/index\_en.htm$ 

Eisenhardt, K. M., Martin, J. A. (2000), 'Dynamic Capabilities: What Are They?' Strategic Management Journal

Elliott Larry (2011), 'Global financial crisis: five key stages 2007-2011', The Guardian

ESANE (2014), 'Statistiques annuelles d'entreprises', Esane.fr

F.A.J. van den Bosch, A.P. De Man (1997), 'Perspective on Strategy', Kluwer Academic Publishers

Federalimentare Banche Dati available at: <a href="http://www.federalimentare.it/m">http://www.federalimentare.it/m</a> banche dati.asp

Fiat Group Annual Report (2007), available at: <a href="http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2007/BILANCIO 2007 ING.pdf">http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2007/BILANCIO 2007 ING.pdf</a>

Fiat Group Annual Report (2008), available at: <a href="http://www.fcagroup.com/en-US/investor\_relations/financial\_reports/FiatDocuments/Bilanci/2008/Bilancio\_Consolidato\_UK\_ott.pdf">http://www.fcagroup.com/en-US/investor\_relations/financial\_reports/FiatDocuments/Bilanci/2008/Bilancio\_Consolidato\_UK\_ott.pdf</a>

Fiat Group Annual Report (2009), available at: <a href="http://www.fcagroup.com/en-US/investor\_relations/financial\_reports/FiatDocuments/Bilanci/2009/Annual\_report\_totUK\_2009.pd">http://www.fcagroup.com/en-US/investor\_relations/financial\_reports/FiatDocuments/Bilanci/2009/Annual\_report\_totUK\_2009.pd</a> f

Fiat Group Annual Report (2010), available at: <a href="http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2010/Relazione Finanziaria UK.pdf">http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2010/Relazione Finanziaria UK.pdf</a>

Fiat Group Annual Report (2011), available at: <a href="http://www.fcagroup.com/en-US/investor relations/financial reports/FiatDocuments/Bilanci/2011/Fiat AnnualReport 2011 ENG.pdf">http://www.fcagroup.com/en-US/investor relations/financial reports/FiatDocuments/Bilanci/2011/Fiat AnnualReport 2011 ENG.pdf</a>

Fiat Group Annual Report (2012), available at: <a href="http://www.fcagroup.com/en-US/investor-relations/financial reports/FiatDocuments/Bilanci/2012/FiatGroup Annual Report 2012">http://www.fcagroup.com/en-US/investor-relations/financial reports/FiatDocuments/Bilanci/2012/FiatGroup Annual Report 2012 ENG.pdf</a>

Fiat Group Annual Report (2013), available at: <a href="http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2013/2013">http://www.fcagroup.com/en-us/investor-relations/financial reports/FiatDocuments/Bilanci/2013/2013</a> annual report.pdf

Food drink europe (2014), 'Data and trend of European food and drink industry', fooddrinkeurope.eu

Fotina Carmine (2014), 'Destinazione Italia, via al piano', Il Sole 24 ore

Fumagalli Andrea (2009), 'Gli effetti della crisi sull'Europa', Basic Income Network

Gouiffès Pierre-Francois (2014), 'Les huit conséquences désastreuses de la crise de 2008 sur la France', *La Tribune* 

Governo Italiano- Presidenza del consiglio dei ministri (2012), 'Press release Stability Law', Governo.it

Gouvernement (2012), 'National Pact for growth, competitiveness and employment', economie.gouv.fr

Gouvernement (2014), 'The responsibility and solidarity pact, for employment and purchasing power', *economie.gouv.fr* 

Gouvernment (2014), 'Competitiveness in the agrifood sector', economie.gouv.fr

Grion Luisa (2011), 'Consumi, redditi e investimenti. Ecco gli effetti della recessione', La Repubblica

Grossman Henry (1922), 'The theory of economic crisis', *Bulletin International de l'Académie Polonaise des Sciences et des Lettres* 

Harvard publication, 'The 1907 crisis in historical perspective', *Harvard.edu* 

Hensman Rohini (2008), 'Marxism and the economic crises', Global Labour journal

Keynes John (1936), 'The general theory of employment, interest and money', umkc.edu

Kirkwood John B (1972), 'The great depression: a structural analysis'

Kitching John (2009), 'Business strategies and performances during difficult economic conditions', *eprints.kingston.ac.uk* 

Kondratieff Nikolai (1925), 'The major economic cycles', EP Dutton

Kosakowski Paul (2008), 'The fall of the market in the fall of 2008'

Inea Banche dati available at: <a href="http://www.inea.it:8080/banchedati">http://www.inea.it:8080/banchedati</a>

Inea (2014), 'Annuario dell'agricoltura Italiana 2013', inea.it

Infocamere/Movimprese, Dati totali imprese, available at <a href="http://www.infocamere.it/movimprese/-asset\_publisher/ueRnd4KL4Z0I/content/dati-totali-imprese-1995-2015">http://www.infocamere.it/movimprese/-asset\_publisher/ueRnd4KL4Z0I/content/dati-totali-imprese-1995-2015</a>

International Business publication (2014), 'France. Investment and business guide. Volume 1 strategic and practical information', *International Business publication* 

Insee, 'Industrie automobile', available at

http://www.insee.fr/fr/themes/document.asp?ref\_id=T13F183

Insee, 'Industrie agroalimentaire', available at

http://www.insee.fr/fr/themes/document.asp?ref\_id=fsi2011&file=Industrie-Agroalimentaire.xml

Insee (2012), 'L'industrie manufacturière en France depuis 2008 : quelles ruptures?', insee.fr

Insee (2013), 'Les ajustements des entreprises françaises pendant la crise de 2008/2009', insee.fr

Insee (2014), 'Les entreprises en France', insee.fr

Ismea (2013), 'L'impatto della crisi sull'industria alimentare', ismea.it

Istat (2011), '9° censimento generale dell'industria, dei servizi e delle istituzioni no-profit', insee.fr

Istat (2012), 'L'evoluzione dell'economia Italiana: aspetti macroeconomici', insee.fr

Istat (2013), 'Mercati, strategie e ostacoli alla competitività', insee.fr

Istat (2013), 'Rapporto sulla competitività dei settori produttivi 2013', insee.fr

Istat (2014), 'L'evoluzione dell'economia italiana. Aspetti macroeconomici', insee.fr

Istat (2014), 'Rapporto sulla competitività dei settori produttivi 2014', insee.fr

Istat (2015), 'Rapporto annuale 2015. La situazione del paese', insee.fr

Istat dati, available at <a href="http://dati.istat.it/#">http://dati.istat.it/#</a>

Langois (2003), 'The vanishing hand: the changing dynamics of industrial capitalism.', Oxford University press

Leclerc Aline (2010), 'La prime à la casse à l'heure du bilan', Le Monde

Mager (1987), 'Business cycles', Springer

Marx Carl (1867), 'Capital. Volume 1', Chapter 8 : Constant capital and variable capital

Mattick Paul (1974), 'Economic crisis and crisis theory', Reaktion books

Ministero delle Economie e delle Finanze (2013), 'Documento di economia e finanza 2013. Programma nazionale di riforma-Parte1. La strategia nazionale e le principali iniziative'

Ministero delle Economie e delle Finanze (2014), 'Documento di economia e finanza 2014. Programma nazionale di riforma-Parte1. La strategia nazionale e le principali iniziative'

Ministère de l'alimentation, de l'agriculture et de la pêche (2013), 'Enjeux des industries agroalimentaire'

Ministère de l'agriculture, de l'agroalimentaire et de la forêt (2012), 'Panorama des industries agroalimentaires 2012'

Ministère de l'agriculture, de l'agroalimentaire et de la forêt (2014), 'Panorama des industries agroalimentaires 2014'

Ministère de l'Agriculture de l'Agroalimentaire et de la Foret (yearly), 'Synthèses IAA : En 2014, le volume de la production des IAA a légèrement progressé', *Agreste.agriculture.gouv.fr* 

Ministère de l'Agriculture de l'Agroalimentaire et de la Foret (2015), 'L'agriculture et l'agroalimentaire au cœur de la politique pour la croissance et l'emploi', *Agreste.agriculture.gouv.fr* 

Ministère de l'Agriculture de l'Agroalimentaire et de la Foret (2014), 'Pacte responsabilité solidarité agriculture agroalimentaire', Agreste.agriculture.gouv.fr

Ministère de Finance et des Contes Publics (2011), 'Rappel des mesures du « Pacte automobile de première génération»', *Economie.gouv.fr* 

Monthly bulletin ECB Europa (2011), 'The financial crisis in the light of the euro area accounts: a flow of funds perspective

Murphy A. (2008), 'An analysis of the financial crisis of 2008: causes and solutions', *Oakland University publication* 

Observatory of Economic Complexity available at

https://atlas.media.mit.edu/en/explore/tree\_map/hs/import/ita/show/1510/2012/

OECD (2014), 'France. Les réformes structurelles: impact sur la croissance et options pour l'avenir'

Oxfam Case study (2013), 'The true cost of austerity and inequality. France case study.'

Panorama auto (2014), 'Incentivi 2014, dal 6 maggio fino a 5.000 euro di bonus', Panoramauto.it

Parienty Arnaud (2013), 'Austérité: pourquoi une politique néfaste et impopulaire est-elle appliquée?', *Alternatives économiques* 

Parmalat Group Annual Report (2007), available at:

http://www.parmalat.com/attach/content/1328/Bilancio Parmalat%202007\_ENG.pdf

Parmalat Group Annual Report (2008), available at:

http://www.parmalat.com/attach/content/2427/Bilancio%20ENG.pdf

Parmalat Group Annual Report (2009), available at:

http://www.parmalat.com/attach/content/2777/Bilancio%20UK%202009.pdf

Parmalat Group Annual Report (2010), available at:

http://www.parmalat.com/en/investor\_relations/financial\_reports/annual\_reports/2010

Parmalat Group Annual Report (2011), available at:

http://www.parmalat.com/attach/content/3627/Parmalat%20UK.pdf

Parmalat Group Annual Report (2012), available at:

http://www.parmalat.com/attach/content/4087/Annual%20Report%202012.pdf

Parmalat Group Annual Report (2013), available at:

http://www.parmalat.com/attach/content/4300/PARMALAT%20RELAZIONI%20E%20BILANCIO%202013%20ING.pdf

Platforme de la Filière Automobile, available at <a href="http://www.pfa-auto.fr/index.php/presentation/">http://www.pfa-auto.fr/index.php/presentation/</a>

PSA Peugeot Citroen Annual Report (2007), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2007-annual-results">http://www.psa-peugeot-citroen.com/en/content/2007-annual-results</a>

PSA Peugeot Citroen Annual Report (2008), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2008-annual-results">http://www.psa-peugeot-citroen.com/en/content/2008-annual-results</a>

PSA Peugeot Citroen Annual Report (2009), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2009-annual-results">http://www.psa-peugeot-citroen.com/en/content/2009-annual-results</a>

PSA Peugeot Citroen Annual Report (2010), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2010-annual-results">http://www.psa-peugeot-citroen.com/en/content/2010-annual-results</a>

PSA Peugeot Citroen Annual Report (2011), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2011-annual-results">http://www.psa-peugeot-citroen.com/en/content/2011-annual-results</a>

PSA Peugeot Citroen Annual Report (2012), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2012-annual-results">http://www.psa-peugeot-citroen.com/en/content/2012-annual-results</a>

PSA Peugeot Citroen Annual Report (2013), available at: <a href="http://www.psa-peugeot-citroen.com/en/content/2013-annual-results">http://www.psa-peugeot-citroen.com/en/content/2013-annual-results</a>

Scarci Emanuele (2015), 'The food industry hold on: production returned to grow after three years', *Il Sole 24 ore* 

Schumpeter Joseph (1913), 'War and capitalism', Economic journal

Shiskin Julius (1975), 'Unemployment: measurement problems and recent trends', *Journal of the Royal Statistical Society* 

Silberston, A. (1983) 'Efficiency and the Individual Firm', in D. Shepherd, J. Turk and A. Silberston (eds) *Microeconomic Efficiency and Macroeconomic Performance*, Philip Allen

Sorkin Andrew Ross (2009), 'Too big to fail'

Stajanov Dragoljub (2009), 'Keynes and the economic crisis: some reconsiderations', *Zb. rad. Ekon. fak. Rij* 

Stijn Claessens and M. Ayhan Kose (2011), 'Recession: when bad times prevail', *International Monetary Fund* 

Taylor J.B. (2009), 'The financial crisis and the policy responses: an empirical analysis of what went wrong', NBER working paper series

Teece, D. J. (2007), 'Explicating dynamic capabilities: the nature and microfoundations of (sustainable) enterprise performance', *Strategic Management Journal* 

Teece, D. J., Pisano, G., and Shuen, A. (1997), 'Dynamic Capabilities and Strategic Management', *Strategic Management Journal* 

Tirole Jean (2012), 'The € crisis, some reflections on institutional reforms', *Toulouse School of Economics* 

The Economist (2013), 'The origins of the financial crisis. Crash course', The Economics

Thomson James D. (1967), 'Organisations in action', McGraw-Hill

Unicredit Corporate analysis (2011), 'Rapporto Corporate Efige 2011. Undicesima indagine sulle imprese manifatturiere italiane', *Unicredit publication* 

Unrae (2012), 'L'auto 2012. Sintesi statistica'

Unrae book 2014 (2015), 'Analisi del mercato autoveicoli in Italia'