

QUALITATIVE AND QUANTITATIVE ANALYSIS OF PHILIPS

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PHILIPS

sense and simplicity



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FIRM ANALYSIS

PHILIPS
sense and simplicity





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1. Philips Introduction

Philips is a diversified technology company active in the markets of healthcare, lighting and consumer well-being. The headquarters are in Amsterdam (Netherlands)

2. History

Philips was founded in Eindhoven (Netherlands) in 1891 by Frederik and Gerard Philips to manufacture incandescent lamps and other electrical products.

Koninklijke Philips Electronics N.V., the company, which started as a limited partnership with the name Philips & Co. In Eindhoven, the Netherlands, in 1891, was converted into the company with limited liability N.V. Philips' Gloeilampenfabrieken on September 11, 1912. On May 6, 1994, the name was changed to Philips Electronics N.V., and on April 1, 1998, the name was changed to Koninklijke Philips Electronics N.V. Its shares have been listed on the Amsterdam Stock Exchange, Euronext Amsterdam, since 1912. The shares have been traded in the United States since 1962 and have been listed on the New York Stock Exchange since 1987.

The foundations of Philips were laid in 1891 when Anton and Gerard Philips established Philips & Co. in Eindhoven, the Netherlands. The company began manufacturing carbon-filament lamps and by the turn of the century, had become one of the largest producers in Europe. Stimulated by the industrial revolution in Europe, Philips' first research laboratory started introducing its first innovations in the x-ray and radio technology. Over the years, the list of inventions has only been growing to include many breakthroughs that have continued to enrich people's everyday lives.

3. Mission

Philips has the mission of improve people's life through meaningful innovation. Innovation is core to everything they do. But innovation does not only mean "new technology". It can also mean a new application, a new business model or a unique customer proposition brought about by an innovative partnership. By tracking global trends and understanding the challenges facing people in their daily lives, they ensure that people in their daily lives, we ensure that people's needs and aspirations remain at the heart of their innovation endeavours.

4. Vision

At Philips, we strive to make the world healthier and more sustainable through innovation. Our goal is to improve the lives of 3 billion people a year by 2025. We will be the best place to work for people who share our passion. Together we will deliver superior value for our customers and shareholders.



5. Philips activities

5.1. Healthcare

Philips is one of the world's leading health care companies (based on sales) along with General Electric and Siemens. The United States, is its largest market, represented 41% of our Healthcare business's global sales in 2012, and it is followed by Japan, China and Germany. Growth geographies accounted for 24% of Healthcare sales. It has to be noted that the global economic crisis has had a negative effect on Philips Healthcare's sales in Europe, particularly in the southern Europe. Philips Healthcare employs approximately 37,500 employees worldwide.

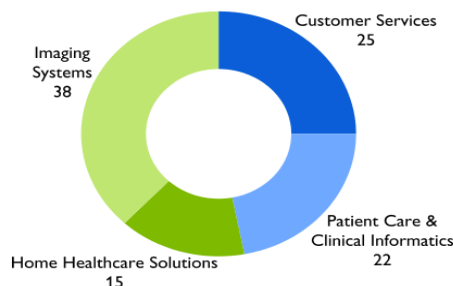
On this Philips Healthcare market, sales are generally higher in the second half of the year.

Philips Healthcare is organized around four big sub activities or strategies that are the following ones: Imaging Systems (Integrated clinical solutions that include radiation oncology, clinical applications and platforms, etc.), Patient Care & Clinical Informatics (Enterprise patient monitoring solutions, from value solutions to sophisticated connected solutions), Home Healthcare Solutions (Sleep management, respiratory care and non-invasive ventilation.) and Customer Services (Equipment services and support, including service contracts, equipment maintenance, etc.).

The main objective of Philips Healthcare is being the leader of the market and they want to reach that point by innovating and creating new healthcare technology.

Philips Healthcare's department has thought about some goals to reach in the next few years which could give Philips the leadership of the healthcare market. These ideas are: Implement Accelerate! Transformation, Driving to co-Leadership on Imaging Systems, Achieving leadership with holistic innovation in Patient Care & Clinical Informatics, International expansion of the Home Healthcare Solutions business, Invest for leadership in growth geographies as China, India and Arabic countries specially Saudi Arabia and Abu Dhabi, Executing operational excellence initiatives to increase margin and time-to-market and finally Deliver on EcoVision sustainability commitments.

Total sales by business 2012
as a %





Philips has some healthcare priorities for 2013 related to innovating and developing new activities and the existing ones:

- Complete its Accelerating Healthcare transformation.
- Invest in its growth initiatives to deliver differentiated offerings from the hospital to the home
- Create momentum behind Customer Services.
- Implement its end-to-end customer relationship management solution across the global Philips Healthcare organization.
- Create a high-performance organization as measured by ongoing employee surveys and business results.
- Institutionalize its end-to-end operating framework to optimize financial returns on our portfolio and improve the customer experience.

5.2. Consumer Lifestyle

At consumer lifestyle Philips wants to make the world healthier and more sustainable through innovation, make life easier and more comfortable, it is also focused on value creation through category development and delivery through operational excellence. Something it has to be highlight is that in difference between the other sectors where Philips works, on this specific one (consumer lifestyle) it knows there are lots of competitors and being the leader of this kind of market is not its main objective.

If we talk about the products make by Philips we have to know that it bases its products on four key parameters that represent the image of the firm. These four points, which Philips has in mind before creating a new product for use in everyday life, are:

*Consumers have a growing interest in personal health.

*Consumers are increasingly appearance-conscious.

*Consumers want healthy food that is also easy to prepare.

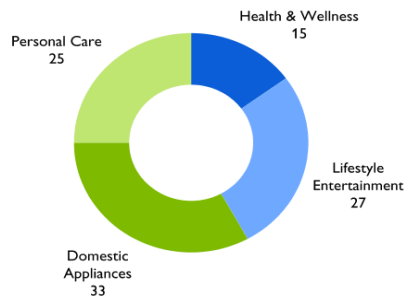
*In a complex market environment, consumers look for responsible brands they can trust.

We think it is also important to say in which business areas Philips focuses its consumer lifestyle production. From our point of view and agreeing with Philips, these areas are four:

1. Health & Wellness: mother and childcare, oral healthcare.
2. Personal Care: male grooming, skincare, beauty.
3. Domestic Appliances: coffee, floor care, garment care, kitchen appliances, water & air, beverage appliances.
4. Lifestyle Entertainment: audio and video entertainment; communications, headphones and accessories.



Total sales by business 2012
as a %



It also has some priorities for consumer lifestyle for 2013:

- Drive global scale and category leadership in health and well-being categories with attractive profit pools.
- Further reduce our cost base.
- Improve return on investment in marketing.
- Roll out end-to-end programs that will drive reduced time-to-market, reduced inventories and improved gross margins.

After having discussed these first two sectors in which Philips acts, we can see the great involvement of the company in everything related to improving people's life, making it better, easier, more comfortable and increasingly technological.

5.3. Lighting

Philips serves a large and attractive market that is driven by the need for more light, energy-efficient lighting, and digital lighting. This industry is very important for Philips especially because it is a growing market which has a lot of possibilities and future given the fact that over half the world's population currently lives in urban areas: a figure that is expected to rise to over 70% by 2050, and all that people will need light.

Philips is a global market leader with recognized expertise in the development, manufacturing and application of innovative lighting solutions. It has pioneered many of the key breakthroughs in lighting over the past 121 years.

Philips' idea on lighting is the following one: "We believe that by focusing on what people really need and leveraging our expertise with a broad range of leading partners, we can create and deliver the most innovative and meaningful solutions on the market." So we can see again the importance of the technology on Philips.

In this industry Philips has done a big bet for LED. It thinks LED is the future of lighting.

In lighting Philips supplies both indoors and outdoors sectors. Indoors, it offers lighting solutions for homes, shops, offices, schools, hotels, factories and hospitals. Outdoors, it offers solutions for roads (street lighting and car lights) and for public spaces, residential areas and sports arenas. In addition, it addresses the desire for light-inspired experiences through

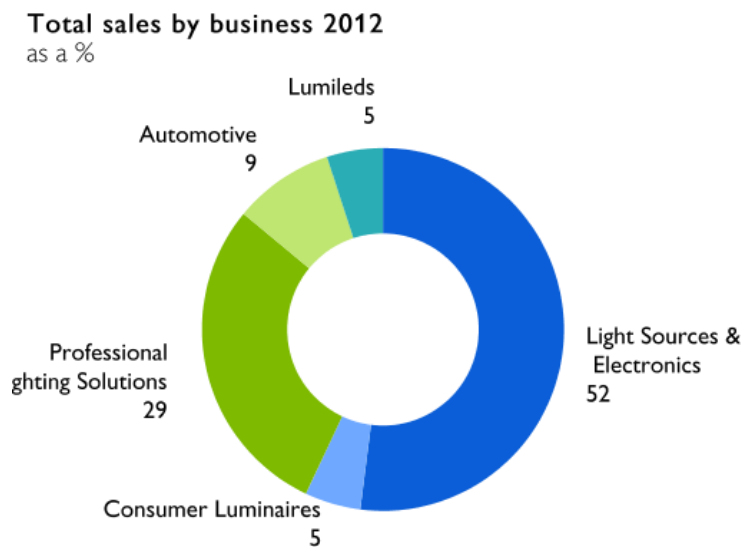


architectural projects last but not least it also supplies specific applications of lighting in specialized areas, such as horticulture and water purification.

The businesses where Philips lighting is acting are:

- Light Sources & Electronics: LED, eco-halogen, (compact) fluorescent, high-intensity discharge and incandescent light sources, plus electronic and electromagnetic gear, modules and drivers
- Consumer Luminaires: functional, decorative, lifestyle, scene-setting luminaires
- Professional Lighting Solutions: controls and luminaires for city beautification, road lighting, sports lighting, office lighting, shop/hospitality lighting, industry lighting
- Automotive Lighting: car headlights, car signaling, interior
- Lumileds: packaged LEDs.

Philips Lighting has manufacturing facilities in some 25 countries in all regions of the world, and sales organizations in more than 60 countries. Commercial activities in other countries are handled via distributors working with our International Sales organization. Lighting has 50,200 employees worldwide.



And the priorities for lighting for 2013 are:

- Lead the technological revolution in Lighting, be the thought-leader in LED, and win the 'golden tail' in conventional lighting.
- Win in the professional market, developing and growing profitable solutions and services.
- Win in consumer markets and develop new ways to go to market.
- Use Accelerate! As its transformation and performance improvement platform throughout the whole organization.



5.4. Innovation, Group & Services

Innovation, Group & Services comprises the activities of the Group headquarters, including Philips' global management as well as Group Innovation and New Venture Integration and other departments and activities that are reported on this sector.

Innovation, Group & Services supports Idea to Market in five focal areas: Speeding up time to market, Portfolio optimization, Driving breakthrough innovation, Improving innovation competences, and Restoring the image of Philips as an innovation leader.

In total, Philips Group Innovation (PGI) employs 4,800 professionals around the globe. PGI participates actively in working relationships with both academic and industrial partners as The High Tech Campus in Eindhoven (Netherlands), the Philips Innovation Campus in Bangalore (India), and Research Shanghai (China).

Philips group innovation is divided in different big and important departments, which are the following ones:

1. Philips Research: it is the main partner of Philips' operating sectors for technology-enabled innovation. It creates new technologies and the related intellectual property (IP), which enables Philips to grow in businesses and markets.
2. Philips Intellectual Property & Standards: it proactively pursues the creation of new intellectual property in close co-operation with Philips' operating sectors and Philips Group Innovation. It has to be noted the importance of this department because of the value creation, Philips' IP portfolio currently consists of around 59,000 patent rights, 35,000 trademarks, 81,000 design rights and 4,200 domain name registrations.
3. Philips innovation services: it is responsible for supporting third parties and internal company. Innovation Services is playing an increasing role in the operating sectors' digital transformation, supporting the move into internet and network applications/services.
4. Philips innovation campus
5. New Venture Integration: it focuses on the integration of newly acquired companies across all sectors.
6. Philips design: the Group Design team drives a global function and develops new competences. Philips Design is widely recognized as a leader in people-centric design. In 2012, it won over 120 key design awards in the areas of product, communication and innovation design.
7. Philips Healthcare incubator: is a dedicated corporate venturing organization within Philips. Its mission is to identify novel business opportunities based on the unmet needs of patients and their care providers, and to transform these into successful business ventures.



6. Group strategic focus

Philips is a technology company with a focus on people's health and well-being. A number of trends and challenges are influencing their business activities and portfolio choices.

Global trends and challenges-their market opportunities

- | | |
|---------------------------|---|
| Healthcare | <ul style="list-style-type: none">• Growing and aging populations• Increase in patients managing chronic conditions• Growth geographies wealth creating demand• Lifestyle changes fueling cardiovascular illnesses and respiratory and sleeping disorders. |
| Consumer lifestyle | <ul style="list-style-type: none">• Consumer focus on health and well-being• Rising middle class in growth geographies• Back to basics: simple propositions• Trusted brands combined with locally relevant portfolio |
| Lighting | <ul style="list-style-type: none">• Ongoing urbanization and globalization• Increasing need for energy-efficient solutions• Fast-growing global illumination market• Expanding renovation market• Rapid adoption of LED-based lighting solutions |

7. Company structure

Koninklijke Philips Electronics N.V., a company organized under Dutch law (the 'Company'), is the parent company of Philips Group ('Philips' or the 'Group').

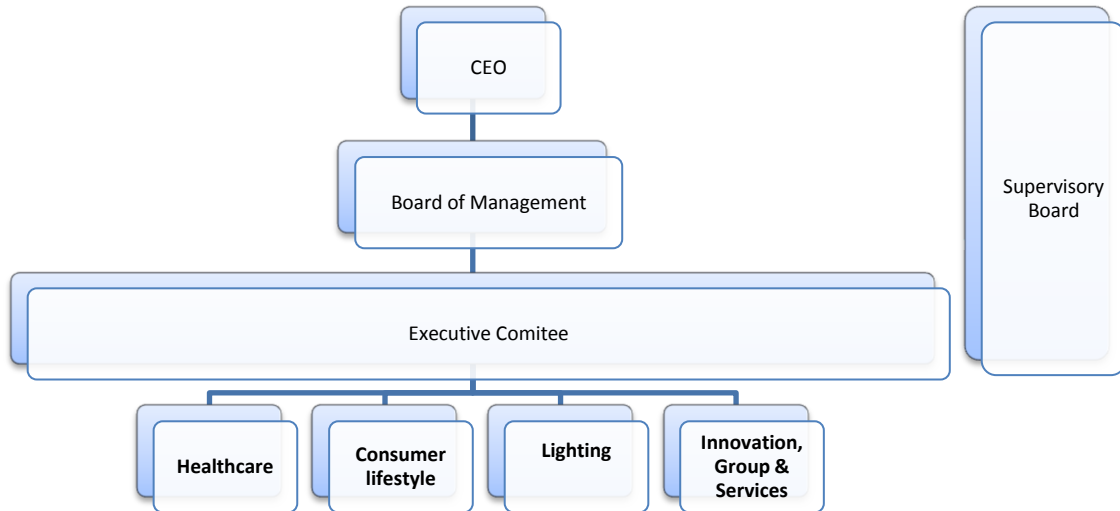
Philips' activities in the field of health and well-being are organized on a sector basis, with each operating sector: Healthcare, Consumer Lifestyle and Lighting; being responsible for the management of its business worldwide.

The Innovation, Group & Services sector provides the operating sectors with support through shared service centers. Furthermore, country management organization supports the creation of value, connecting Philips with key stakeholders, especially our employees, customers, government and society. The sector also includes pensions.

Also included under Innovation, Group & services are the activities through which Philips invests in projects that are currently not part of the operating sectors, but which could lead to additional organic growth or create value through future spin-offs.

8. Management

The Company is managed by an Executive Committee which comprises the members of the Board of Management and certain key officers from functions, business and markets.



The Board of Management is entrusted with the management of the Company. Certain key officers have been appointed to manage the Company together with the board of Management. The members of the Board of Management and these key officers together constitute the Executive Committee. (Graph 1)

Under the chairmanship of the President/Chief Executive Office (CEO) the members of the Executive Committee share responsibility for the deployment of Philips' strategy and policies, and the achievement of its objectives and results.

The Executive Committee has, for practical purposes, adopted a division of responsibilities indicating the functional and business areas monitored and reviewed by the individual members. (Graph 2)

The members of the Board of Management remain accountable for the actions and decisions of the Executive Committee and have ultimate responsibility for the Company's management and the external reporting and are answerable to shareholders of the Company at the annual General Meeting of Shareholders.

All resolutions of the Executive Committee are adopted by majority vote comprising the majority of the members of the Board of Management present or represented, such majority comprising the vote of the CEO. The Board of Management retains the authority to, at all times and in all circumstances, adopts resolutions without the participation of the other members of the Executive Committee.

The executive Committee is supervised by the Supervisory Board and provides the later with all information the Supervisory Board needs to fulfil its own responsibilities. Major



decisions of the Board of Management and Executive Committee require the approval of the Supervisory Board.

These include decisions concerning:

- a) The operational and financial objectives of the Company
- b) The strategy designed to achieve the objectives
- c) If necessary, the parameters to be applied in relation to the strategy
- d) Corporate social responsibility issues that are relevant to the Company

Members of the Board of Management and the CEO are elected by the General Meeting of Shareholders upon a binding recommendation drawn up by the Supervisory Board after consultation with the CEO.

Members of the Board of Management and the CEO are appointed for a term of four years, it being understood that this term expires at the end of the General meeting of Shareholders.

The supervisory Board supervises the policies of the Board of Management and Executive Committee and the general course of affairs of Philips and advises the executive management thereon. The Supervisory Board, in the two-tier corporate structure under Dutch law, is a separate body that is independent of the Board of Management.

We have noticed, that in the last years the compensations of the executive committee have been increased, despite the negative trend that the company had in sales and its value on the stock exchange. (Graph 3)

9. Philips evolution

9.1. Operating Revenue

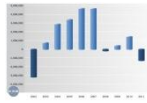


(Graph 4)

As we can see on the graph, the operating revenue since 2003 until 2011 has a negative trend. We thought it could be by the economical crisis that involves family consumption and construction, both of them are very important sectors in our business.



9.2. Profits and losses (Net Income)



(Graph 5)

In this graph, we can see the losses of the company were important in 2002, 2008 and 2011. In 2002, the company has high losses because of its high inversion in high-tech firms. The explosion of the dotcom bubble means high losses for the company.

In 2008, the global crisis dragged the sales of the company until its minimum. And lots of stock of lifestyle consumer products had to be sold under price. In 2011, the high competition with electronic firms of South-Korean made the firm lose a large market share and divest the business of television because it did not come out profitable for the company.

9.3. Stock exchange



(Graph 6)

The company increased its value for the duration of the dot com bubble in the fall but the outbreak was very important. In the coming years its value substantially improved but again the crisis of 2008 did much damage to the company. Recent years is struggling to maintain its value in the stock market.

10. Holding

We can define a Holding as an economic organization that controls a number of companies that guarantee control over the various market factors.

Form a Holding has great benefits in so far as it is able to control large segments of the same market, which ensures that the companies that are part of Holding have access to raw materials, logistics, transport, finance, etc.

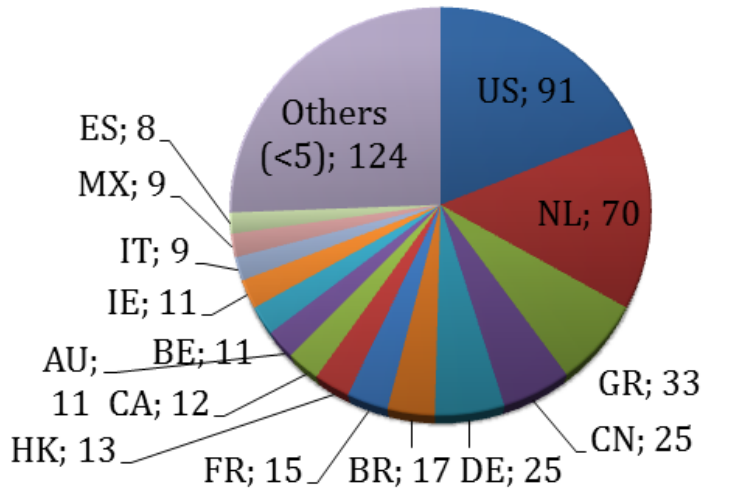
We have done a Holding analyze of Philips Group. We've selected a sample of 22 companies which Philips has direct participation to understand easily how Philips works as Holding. (Graph 6).

Also we have listed all the subsidiary firms. (Graph 6.2)

We have made a graph where we have distributed the subsidiary firms of Philips Holding by countries. We can see very clear that the mainly business of the company is made



in the United States of America and in Europe, especially in Netherlands where it was founded and there is the headquarters of Philips.



11. Strategic Alliances

Strategic alliances is a very important point for Philips because is the way to get to the people daily life. By these alliances Philips reaches the goal of mixing its technology with products of common use. Some of these strategic alliances are:

*PHILIPS + NIVEA: The Philips moisturizing shaving system shaver with integrated NIVEA FOR MEN lotion allows comfortable, wet or dry shaving.

*PHILIPS + SARA LEE+ MARCILLA: Senseo® coffee pod system.

*PHILIPS +SWAROVSKI: unique sound accessories and USB storage.

*PHILIPS + INBEV: Beer dispenser.

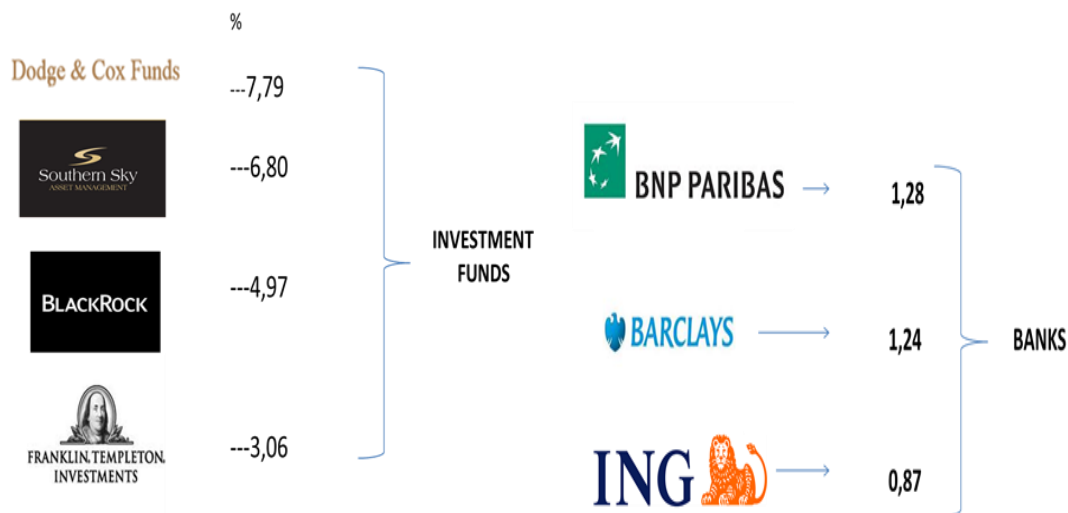
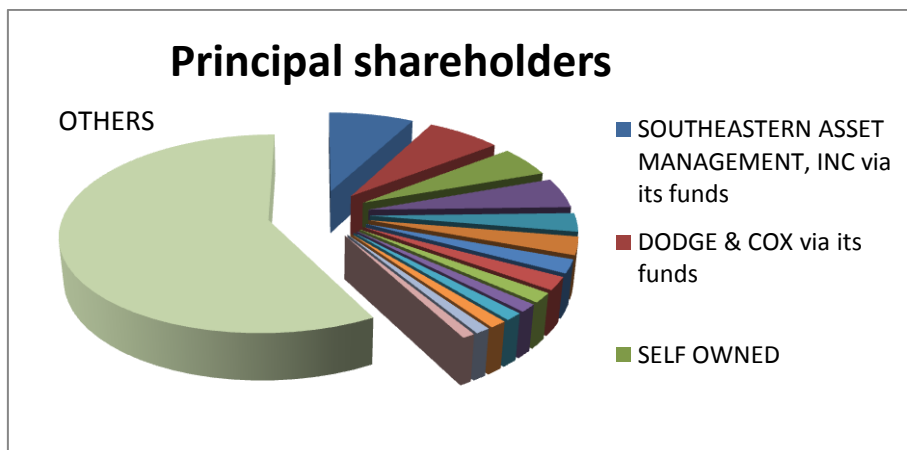
One strategic alliance we think it has to be noted is the joint venture between Philips+TPV television. Philips abandoned the business of television, because the high competition of Asian electronics industry, especially Korean firms Samsung and LG. And the high loses of the last years in this sector.



From this alliance we have to say that is a defensive strategy because Philips has abandoned the television business but by the alliance it keeps in touch with all related with electronics.

12. Shareholders

Shareholders are the owners of companies. A small business may have just one shareholder, the founder, while a public company may have thousands of individual and institutional shareholders, such as mutual fund companies, pension funds and hedge funds. Shareholders play an important role in the financing, operations, governance and control aspects of a business. So those are the reasons why we have analyzed Philips Shareholders. We have looked for the principal shareholders of Philips and we have realized that among the 5 most important shareholders 4 are investment funds and between the first fifteen shareholders there are also three important banks, so we have seen that a fact that stands out is that big and important companies are investing in Philips so we understand that Philips is a safe company and at the same time a company with future. (Graph 7)





Dividends Payout: Proposed distribution

A proposal will be submitted to the 2012 Annual General Meeting of Shareholders to declare a dividend of **EUR 0.75** per common share, in cash or in shares at the option of the shareholder, against the reserve retained earnings. Such dividend is expected to result in a distribution with a total value of EUR 695 million.

13. Suppliers

In recent years, Philips has transformed its activities from Purchasing to Supply. Today, they look beyond traditional 'purchasing' boundaries to the entire value chain. And they act as One Philips, using standardized programs and tools that are aligned company-wide.

The ever more rapid pace of innovation means they also work closely with suppliers. They involve them early in product development to help us innovate quickly and to meet our customers' expectations. Where possible they design in standard solutions to better capture value and reduce the lifetime costs of their products. To do this effectively, they constantly review their supply base and build strong relationships with strategic suppliers.

Today's electronics industry is characterized by an accelerating pace of innovation and greatly reduced product lead-times. This is reflected in the changing nature of Philips' supply base and the relationships with their suppliers.

A very high percentage of components and products is now purchased, rather than manufactured in-house. Overall, some 90 percent of our Bill of Materials comes from outsourcing, long-term partnerships, Original Equipment Manufacturers and Original Design Manufacturers.

14. Clients

We have to divide the clients between the different sectors we compete.

First of all, in the consumer lifestyle sector, our clients are the final consumers especially in Europe and USA. But our company is growing in the developing countries, especially in China.

Secondly, the lighting sector, we have to divide our clients between particular consumers and professional consumers. The last one, we have to remark the public sector where we provide them the lighting to the streets and roads.

Finally, the healthcare sector, we provide medical machinery to public and private hospitals, especially in Europe and USA.

15. Competitors

We have to divide the competitors between the different sectors our company have business. First of all, we have to remark in the consumer lifestyle sector: Procter and Gamble, Braun, Oral-B, Energizer, LG, Sony, Krups, Braun, Tefal, Conair, Babyliss, Delonghi and Kendwood.



Secondly, we can remark in the lighting sector, especially in the LED manufacturers: Nichia, Samsung LED, Osram, Opto Semiconductors, LG Innotek, Seoul Semiconductor, Cree, Sharp, TG, Everlight and also with General Electric and Siemens.

Finally, in healthcare sector, we can remark: Johnson and Johnson, GE Healthcare, Medtronic, Baxter International, Cardinal Health, Tyco Healthcare, Siemens Medical Solutions, Boston Scientific, Stryker, B. Braun, Guidant Corp., 3M Healthcare, Zimmer Holdings.



16. Appendix

Graph 1. Executive Committee

Frans Van Houten
President
Chief Executive Officer (CEO)
Chairman of the Board of Management since April 2011

Ron Wirahadiraksa
Executive Vice President
Chief Financial Officer (CFO)
Member of the Board of Management since April 2011

Pieter Nota
Executive Vice President
Chief Executive Officer of Philips Consumer Lifestyle
Member of the Board of Management since April 2011

Deborah DiSanzo
Executive Vice President
Chief Executive Officer of Philips Healthcare

Eric Rondolat
Executive Vice President
Chief Executive Officer Philips Lighting

Jim Andrew
Executive Vice President
Chief Strategy and Innovation Officer

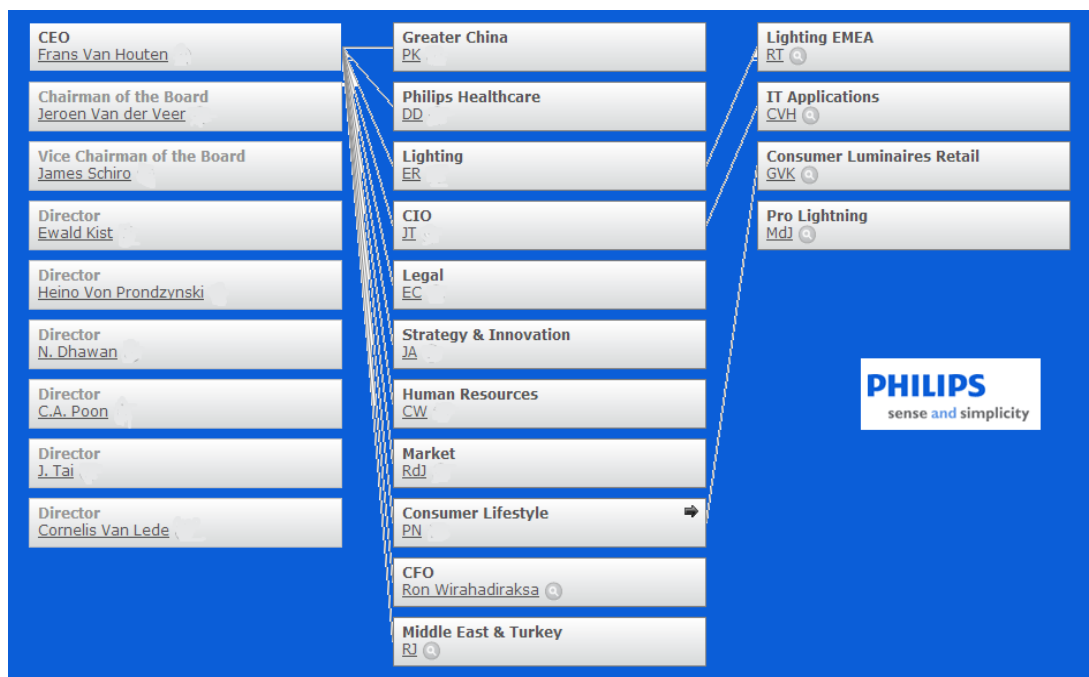
Eric Coutinho
Executive Vice President
General Secretary & Chief Legal Officer

Ronald de Jong
Executive Vice President
Chief Market Leader

Patrick Kung
Executive Vice President
Chief Executive officer Philips Greater China

Carole Wainaina
Executive Vice President
Chief Human Resources Officer

Graph 2. Organigrama

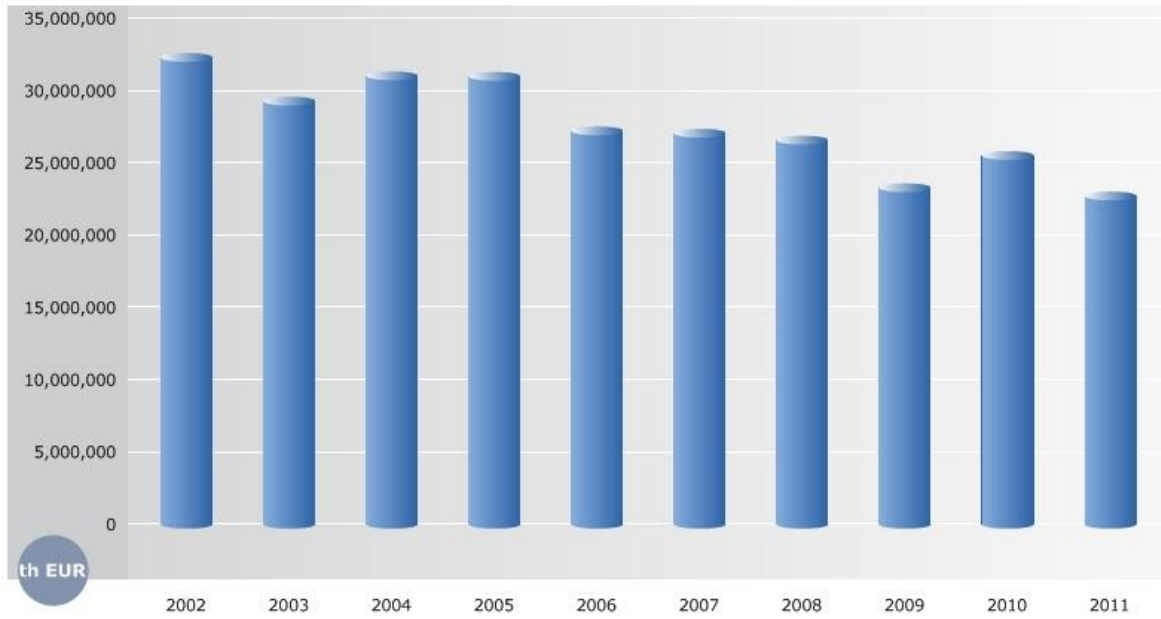


Graph 3. Key Executive Compensation

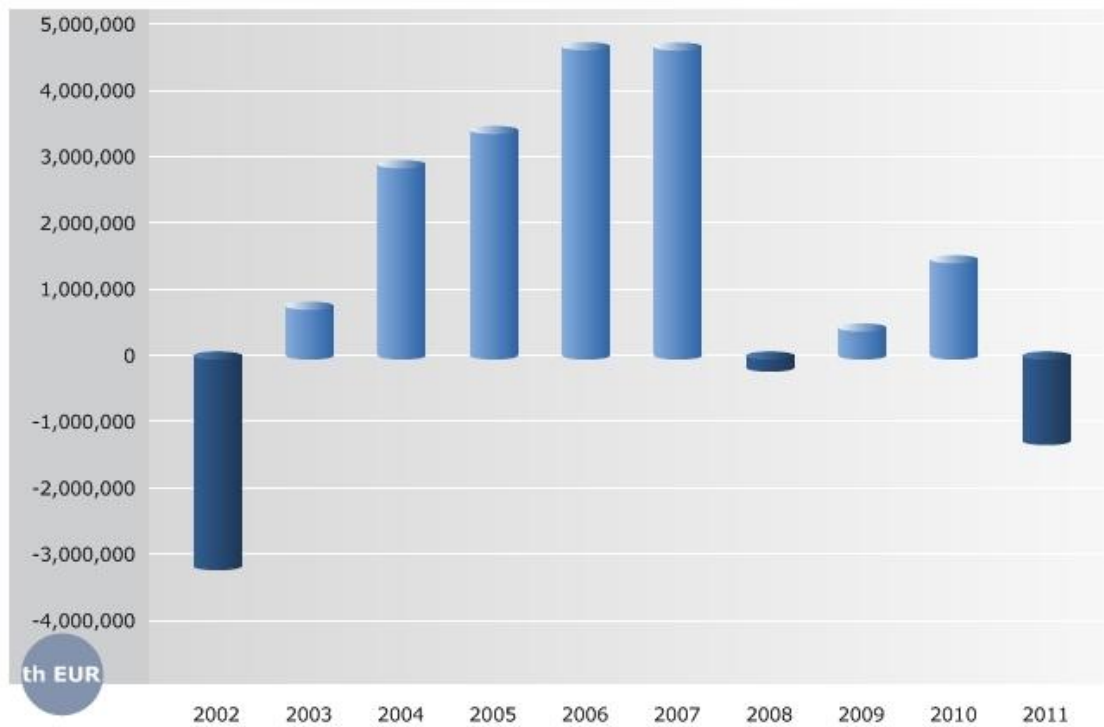
Name/Title	2008 EUR	2009 EUR	2010 EUR	2011 EUR	2012 EUR
Key Executive Compensation	1,510,686	1,672,611	1,544,354	5,375,705	7,301,335
Frans Van Van Houten President, Chief Executive Officer and Chairman of the Board of Management	-	-	-	1,904,771	3,374,868
Pieter Nota Member of Management Board, Executive Vice-President and Chief Executive Officer of Philips Consumer	-	-	-	834,099	1,906,702
Stephen H. Rusckowski Member of the Board of Management, Executive Vice President and Chief Executive Officer of Philips Healthcare	1,510,686	1,672,611	1,544,354	1,509,748	251,839
Ron H. Wirahadiraksa Member of the Board of Management, Executive Vice-President and Chief Financial Officer	-	-	-	1,127,087	1,767,926



Graph 4. Operating Revenue

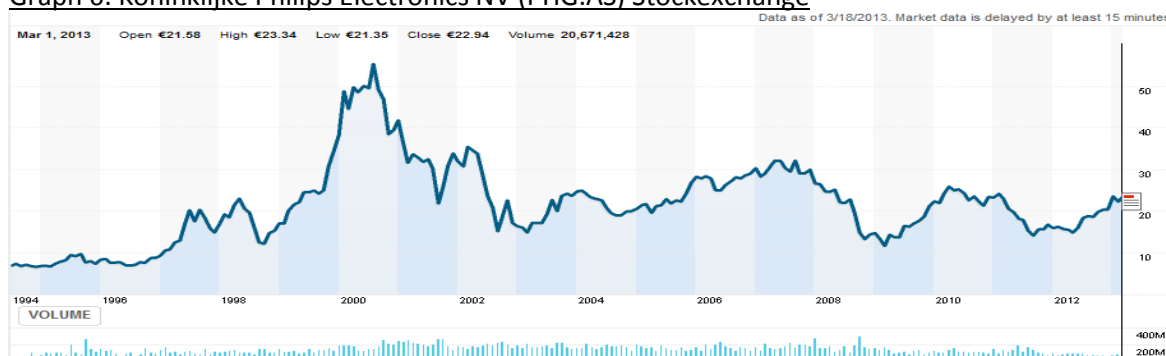


Graph 5. Profits and Losses (Net Income)





Graph 6. Koninklijke Philips Electronics NV (PHG.AS) Stockexchange



Graph 7. Holding

FIRMS	100% GLOBAL INTEGRATION	50%<x<100%	25%<X<50% EQUITY METHOD	x<25%	JOINT- VENTURE
370 WEST TRIMBLE ROAD CORPORATION	X				
ADVANCE TRANSFORMER CO, S.A. DE C.V.	X				
ADVANCED TECHNOLOGY LABORATORIES ARGENTINA S.A.	X				
ALKRODE B.V.	X				
CARDIAC EVALUATION SERVICES INC	X				
PHILIPS ELECTRONICS INDIA LTD.		X			
ARGUS IMAGING B.V.		X			
SAECO WEST LTD		X			
PHILIPS AND NEUSOFT MEDICAL SYSTEMS CO., LTD		X			
RESPIRONICS, INC.		X			
FÁBRICA AUSTRAL DE PRODUCTOS ELÉCTRICOS S.A.		X			
MEDIMETRICS GMBH			X		
PHILIPS LIGHTING MASERU PTY. LTD			X		
PHILIPS MEDICAL CAPITAL GMBH			X		
TP VISION HOLDING B.V.			X		
SAPIENS STEERING BRAIN STIMULATION GMBH			X		
TRIXELL SAS				X	
S H L TELEMEDICINE LTD				X	
TENDRIS HOLDING B.V.				X	
TP Vision			X		X
PHILIPS BenQ DIGITAL STORAGE		X			X
PHILIPS-OPTOGAN		X			X



Graph 7. Shareholders

Shareholder name	Country	Type	Ownership		Source			Company information	
			Direct (%)	Total (%)	Source ident.	Date of info.	Variation	Op. Revenue (mil EUR)*	No of employees
1. SOUTHEASTERN ASSET MANAGEMENT, INC via its funds	US	E	-	7.79	FS	#####	↗	n.a.	n.a.
2. DODGE & COX via its funds	US	E	-	6.80	FS	#####	↗	n.a.	n.a.
3. SELF OWNED	-	H	5.00	n.a.	SE	feb 2013	↗	-	-
4. BLACKROCK, INC.	US	F	-	4.97	SE	feb 2013	↗	7.077	10.100
5. FRANKLIN RESOURCES, INC. via its funds	US	B	-	3.06	FS	set 2012	↘	5.462	8.558
6. BPCE SA via its funds	FR	B	-	2.95	FS	set 2012	↗	9.110	117.381
7. GOVERNMENT OF NORWAY via its funds	NO	S	-	2.22	FS	ag 2012	↗	-	-
8. BLACKROCK, INC. via its funds	US	F	-	2.14	FS	oct 2012	↗	7.077	10.100
9. SOCIÉTÉ GÉNÉRALE via its funds	FR	B	-	1.60	FS	set 2012	↘	23.110	159.000
10. BARCLAYS PLC	GB	B	-	1.28	SE	#####	↘	29.530	139.200
11. BNP PARIBAS via its funds	FR	B	-	1.24	FS	ag 2012	↔	48.555	n.a.
12. FMR LLC via its funds	US	F	-	1.19	FS	set 2012	↗	5.995	41.050
13. VANGUARD GROUP, INC. THE via its funds	US	E	-	1.01	FS	jul 2012	↗	n.a.	n.a.
14. ING GROEP NV via its funds	NL	B	-	0.87	FS	set 2012	↘	17.882	84.718
15. SAS RUE LA BOETIE via its funds	FR	C	-	0.65	FS	set 2012	↗	<0,5	n.a.
16. ARTISAN PARTNERS HOLDINGS LP via its funds	US	F	-	0.54	FS	set 2012	↘	<0,5	2
17. ONTARIO ASSOCIATION OF CHILDREN'S AID SOCIETIES via its funds	CA	S	-	0.50	FS	#####	-	-	-
18. STICHTING PENSOENFONDS ABP via its funds	NL	A	-	0.50	FS	#####	↘	8.529	n.a.
19. DIMENSIONAL FUND ADVISORS LP via its funds	US	E	-	0.48	FS	set 2012	↗	n.a.	n.a.
20. AMERICAN CENTURY COMPANIES, INC. via its funds	US	F	-	0.47	FS	set 2012	↘	n.a.	n.a.
21. STATE STREET CORPORATION via its funds	US	B	-	0.45	FS	set 2012	↗	7.337	29.660
22. T. ROWE PRICE GROUP, INC via its funds	US	B	-	0.43	FS	set 2012	↔	2.291	5.372
23. F&C ASSET MANAGEMENT PLC via its funds	GB	E	-	0.39	FS	set 2012	↘	262	952
24. TEACHERS INSURANCE & ANNUITY ASSOCIATION OF AMERICA via its funds	US	A	-	0.36	FS	set 2012	↗	9.063	n.a.
25. DEPRINCE, RACE AND ZOLLO INC via its funds	US	C	-	0.30	FS	#####	↗	2	21
26. UNION ASSET MANAGEMENT HOLDING AG via its funds	DE	B	-	0.29	FS	ag 2012	↔	854	2.443
27. ASSENAGON SA via its funds	LU	C	-	0.28	FS	#####	↗	<0,5	n.a.
28. INVESCO LTD. via its funds	BM	F	-	0.28	FS	set 2012	↔	3.186	n.a.
29. SGAM COVÉA (COMBINED) via its funds	FR	A	-	0.28	FS	#####	↗	14.353	n.a.
30. SPARINVEST HOLDINGS SE via its funds	DK	C	-	0.28	FS	ag 2012	↘	83	130
31. AMF FONDER AB via its funds	SE	E	-	0.27	FS	#####	-	25	14
32. DEKABANK DEUTSCHE GIROZENTRALE via its funds	DE	B	-	0.26	FS	set 2012	↗	1.538	3.957
33. UBS AG via its funds	CH	B	-	0.25	FS	set 2012	↗	22.928	62.628
34. SNS REAAL NV via its funds	NL	B	-	0.23	FS	ag 2012	↗	1.736	n.a.
35. BESSEMER GROUP, INCORPORATED, THE via its funds	US	B	-	0.22	FS	jul 2012	↔	281	736
36. BANQUE DEGROOF SA via its funds	BE	B	-	0.21	FS	set 2012	↘	302	1.031
37. GOVERNMENT OF FRANCE via its funds	FR	S	-	0.21	FS	feb 2012	↗	-	-
38. CREDIT SUISSE GROUP AG via its funds	CH	B	-	0.20	FS	set 2012	↗	16.850	47.400



39.	<u>DEUTSCHE BANK AG via its funds</u>	DE	B	-	0.20	FS	set 2012	↗	33.351	100.996
40.	<u>REGERINGSKANSLIET via its funds</u>	SE	S	-	0.20	FS	#####	↗	<0,5	7.500
41.	<u>AXA via its funds</u>	FR	A	-	0.19	FS	ag 2012	↗	76.598	96.999
42.	<u>OLD MUTUAL PLC via its funds</u>	GB	A	-	0.19	FS	set 2012	↗	4.282	57.430
43.	<u>ALLIANZ SE via its funds</u>	DE	A	-	0.18	FS	set 2012	↗	69.299	141.938
44.	<u>BW&M HOLDING AG via its funds</u>	CH	C	-	0.18	FS	#####	-	n.a.	n.a.
45.	<u>HSBC HOLDINGS PLC via its funds</u>	GB	B	-	0.18	FS	set 2012	⇒	52.822	298.000
46.	<u>GROUPE CRÉDIT MUTUEL-CIC via its funds</u>	FR	C	-	0.17	FS	#####	⇒	n.a.	n.a.
47.	<u>UNICREDIT SPA via its funds</u>	IT	B	-	0.16	FS	set 2012	⇒	25.652	160.360
48.	<u>BEUTEL GOODMAN & COMPANY LTD via its funds</u>	CA	F	-	0.15	FS	#####	-	12	65
49.	<u>BANK OF NEW YORK MELLON CORPORATION via its funds</u>	US	B	-	0.14	FS	set 2012	↗	11.032	49.500
50.	<u>PROVINCE DE QUÉBEC via its funds</u>	CA	S	-	0.14	FS	#####	↗	-	-
51.	<u>WELLINGTON MANAGEMENT COMPANY, LLP via its funds</u>	US	E	-	0.14	FS	ag 2012	⇒	n.a.	n.a.
52.	<u>KBC GROEP NV/ KBC GROUPE SA via its funds</u>	BE	B	-	0.13	FS	set 2012	↗	7.734	51.127
53.	<u>ACKERMANS EN VAN HAAREN via its funds</u>	BE	P	-	0.12	FS	set 2012	⇒	403	-
54.	<u>JP MORGAN CHASE & CO. via its funds</u>	US	B	-	0.11	FS	set 2012	↗	73.542	258.965
55.	<u>MCADAMS WRIGHT RAGEN INC. via its funds</u>	US	F	-	0.11	FS	#####	-	6	50
56.	<u>ROYAL BANK OF SCOTLAND GROUP PLC (THE) via its funds</u>	GB	B	-	0.11	FS	#####	-	28.789	146.800
57.	<u>MONDRIAN INVESTMENT PARTNERS LIMITED via its funds</u>	GB	F	-	0.10	FS	ag 2012	-	187	145
58.	<u>PARIS ORLÉANS SA via its funds</u>	FR	B	-	0.10	FS	#####	-	1.176	2.836
59.	<u>KLEISTERLEE G.J.</u>	n.a.	I	0.02	n.a.	RS	#####	⇒	-	-
60.	<u>DUTINÉ G.H.A.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
61.	<u>PROVOOST, R.S.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
62.	<u>RUSCKOWSKI, S.H.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
63.	<u>SIVIGNON, P.-J.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
64.	<u>THOMPSON J M</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
65.	<u>VAN DER VEER, J.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-
66.	<u>VON PRONDZYNSKI, H.</u>	n.a.	I	NG	n.a.	RS	#####	⇒	-	-

* : For an insurance company the corresponding value is the Gross Premium Written and for a bank it is the Operating Income (memo)



RISK ANALYSIS

PHILIPS
sense and simplicity





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17. Introduction

In this text we are going to analyse two main things, the analysis of Philips stock exchange and its financial risk.

18. Analysis of Philips Stock Exchange

Table 1: Statistic analysis Roy.Philips and Eurostoxx50 (2008-2013)

From the table above, we think it is necessary to explain principally three points: the first one is the Mean and Standard deviation meaning and their respective variances in %, secondly the variation coefficient and finally the Beta. In all these points we will focus our attention in Philips values, but at same time we will related it with some aspects of the STOXX50E.

When we talk about the mean of Philips or the general stock exchange we are referring to the characteristic value of a series of quantitative data under study on the principle of the mathematical expectation or expected value. In our case the mean is 17.51 for Philips and 2664 for STOXX50E. But in order to compare both values, we have to take into account the var%. Because it is a measure without units, how much has changed the value every day respect the day before. Because of that we can compare the Roy. Philips stock with the index Eurostoxx50. We can say, that in average, on the last five years (2008-2013), we have a var% of 0,029 in Philips stock and a var% of -0,015. It means that in average if we invest in one day, we could have a gain of 0.029 investing in Roy.Philips stock, and a loss of 0,015 if we invest in the index.

The standard deviation is a statistic measure of dispersion, which indicates how much you can get away from the average values (mean), in addition desvest will show us the range of prices between the asset can move. This is a very important factor for the investors. As we will also see with Beta value onwards, standard deviation is a measure of volatility.

The term of the variance measures the specific risk of a title or share, depending on the specific characteristics of the issuer: types of production activity, competition management, expansion plans, financial solvency, etc. So we can see there is not a lot of risk in a Philips' share, which is going to mean that Philips could be a good investment, just 2,9% of variance.



Then, the variation coefficient is the relation between the desvest and the mean, in our case is equal to 0.22 in Philips and 0.14 in STOXX50E. The coefficient of variation is a measure of relative dispersion very interesting, as it allows us to compare the representativeness of two arithmetic means any frequency distributions, although expressed in different units come, in our case comparing the importance or incidence of Philips and STOXX50E mean. When we add the stocks in the index STOXX50, we reduce the dispersion respect the mean.

The Beta coefficient (β) is a measure of the volatility of an asset (a stock or a value) on the variability of the market, so that higher values denote more volatility and Beta Beta 1.0 is equivalent to the market. The difference between Beta value and standard deviation commented before is, that the Desvest, shows as the volatility of a Philips share regarding itself, on the other hand Beta value shows the volatility of the asset regarding the EUROSTOXX 50.

The daily variation mean, is the gain or loss we could make in mean investing in our studied company in a single day. We can see that we could have a gain of 0,029 in Philips and a loss of 0,015 investing in the Eurostox50.

The annual variation mean is a mathematical calculus, the hypothetical gain or loss that we can make if the 365 days of the year we make a gain, in our case of 0,029, having a final gain of 11,1% in a year.

The semi-variance negative means that we have a proportion of 52,4% of days to have a loss investing in our stock, and this loss would have a mean of 1,49. Our stock has a higher semi-variance negative than the index. It means that the red days investing in Philips are higher and the loss that we could make also is higher.

The difference between the Beta (β) of a stock or a value and 1.0 are expressed in percentage of volatility. A Beta value '1.75 is 75% more volatile than the market. Similarly, a 0.7 Beta value would be 30% less volatile than the market. Our Beta is 0.943 or 94.3% what means that we are 5.7% less volatile than the market. How it has to be interpreted this result? We know that volatility is a measure of the frequency and intensity of changes in the price of an asset, so being more or less equal to the volatility of the market is a good thing in terms of security and stability of Philips' stockexchange value. If this type of value is smaller than 1 can be call as defensive or little volatile.



Graph 1: Regression line

At last but not least, now we are going to see all these factors commented on its regression function. We can see on the regression function, the relation between the var% Roy.Philips stock and var % Eurostoxx 50, the index where the stock is included. We have chosen Royal Philips stock instead of Kon.Philips stock, because the first one is in the frankfurt market and the second one is on Nasdak market. We want to analyse the stock included in the Eurostoxx50, and it is the Royal Philips stock. We can say that the regression line is $y=0,9433x+0.0391$. Where the 0,9433 is the beta and the 0,0391 is the cut-off with the y-axis. R squared is a measure of how much fits the model estimated. Our model has an R squared of 0,5579, is quite good. But for being very good has to be almost one. We can say that our model have some outliers, all the points far from the regression line. As we have said before our Beta is 0.943 or 94.3% what means that we are 5.7% less volatile than the market.

Table 2: Statistic analysis Roy.Philips and Eurostoxx50 (2012-2013)

This table is made with the last year data. As we can see all the variables have improved. We have less days in red, and its loss also is lower. We have a positive var% in the Eurostoxx50, it means the index has increased its value in the last year. As we will see on the next graph, the great fall was at the end of 2008 and at the end of 2011. At the last year, the values are going up, and it is reflected in our table improving its values respect of the table of five years.

Graph 2: Acumulated var% Royal Philips and Eurostoxx50 (excel)

Graph 3: Acumulated var% Royal Philips and Eurostoxx50 (Yahoo website)

In this graphs, one made by us in the excel sheet and the other one made by the yahoo website, it's represented the acumulated var% from April 2008 until April 2013 of Royal Philips stock and compared with the index Eurostoxx50. We have chosen the var%, because it is a comparable measure. And the acumulated var% in order to see which changes have occurred beyond the time in the value of the stock. We can see that the great fall was in October 2008. Then, during 2010 the trend change and it goes up. Philips increase more than the index in this dates until August of 2011 that both values have a great fall. From this dates until 2013, Philips has increased its value more than the index Eurostoxx 50.



Graph 4: Moving average 50,100,200 days Royal Philips (excel)

Graph 4: Moving average 50,100,200 days Royal Philips (Yahoo website)

In this graphs, one made by us in the excel sheet and the other one made by the yahoo website. We can see the value of the Royal Philips stock in the closed value beyond time (2008-2013) and its moving average of 50 days, 100 days and 200 days. We have made this graph to know the tendencies in the value of the stock. When the moving average meets, it means that the trend will change, like in our case in april of 2012. And when moving averages are parallel the trend will continue in this value, like in January of 2010, the trend continue positive. When the moving average separates its value means the trend has more power, like in July of 2011, when the negative trend has more power. Nowadays, we can see a positive trend with the three moving average parallel, then we don't expect a change of the positive trend in the short time.

19.Philips financial risk

As the big firm Philips is, it is everyday expose to several different financial risks which we have to take in very account. Some of these risks are the following ones: liquidity risk, currency risk, interest rate risk, commodity price risk, credit risk, country risk and other insurable risks.

Sometimes we think in a firm just as sales, net income, looses, earnings and assets and liabilities, but the real fact is that a company is quite more complex, and financial risk are key factors for the correct development specially for international firms as Philips, because for example a currency risk or a credit risk can mean a threat for all Philips economy concretely its self-financing. So now we are going to analyse four of these financial risks which we think are the most relevant in Philips' case.

20.Short term risk

Table 3: Short term ratios

Looking to the table we can see many important points or aspects to be highlighted about Philips in its short term risk.

The first point we want to analyse is the working capital (solvency); the working capital is an economic measure that represents the operating liquidity of a firm, in other words the relation between current assets and current liabilities which in our case is positive so it is a good thing because it means that we can pay all our debts in the short term and also have some leeway for contingencies.



The second point that we will analyse is the solvency ratio, which we divided into three different levels, the first is the more general concept of this ratio and relates in turn per 1 the proportionality between current assets and current liabilities, and we can see that is bigger than 1 which as in the working capital it means we can afford our short term debts. From our point of view it also has to be noted that current assets are composed by cash, inventories and receivables that is the reason why we have done 3 different studies for solvency ratio, to look for the incidence or importance of each account (cash, receivables and inventories). If we take out inventories from our solvency ratio we will see how our ratio goes below 1 what is not the best thing because it means we depend on inventories to have a positive ratio of solvency (as it can happen in many firms) but it would be interesting to have a solvency ratio bigger than one even after taking out the inventories. From the last study we can conclude that our cash represent the equivalent of 45% of our current liabilities.

The second part of the table looks for the cash-cycle, which is the relation between when we get the cash and when we make our payments. Our cash-cycle is negative, is about a “-0,13” what means that we pay before we get the cash. This negative result could be a problem because as it is logical is better having the cash before you have to make your payments cause that can prevent any kind of problem or setback, nevertheless “-0.13” is a small value that has not much incidence in the working of our firm.

The cash-cycle has a direct relation with solvency ratio as we will see in the next graph.

Graph 5: Solvency vs. Liquidity

In the graph we are able to see the representation of the results obtained on the previous table. In 2012, we are situated on zone C which means positive solvency and negative Cash-cycle. The ideal point for every firm would be being situated in zone A, but it is quite difficult to reach that level, and we also have to be conscientious that Philips is a manufacturer firm that as most companies in the same sector would be in zone C given the fact that is very difficult on this kind of industry to have a positive cash-cycle.

We can see on the graph, that until this last year, Philips was a firm with a high liquidity and solvency too, this means we are in the A zone from 2008 until 2011. This last year we have reduced our liquidity. The cash cycle is negative, but almost zero. It means that we have to pay to our suppliers at the same time our clients pay us. We have lost the advantage of a positive cash cycle, that it involves we can finance the payments to our suppliers with the



cash paid by our clients. It was a very good situation, because it is a way to finance without any kind of interest and without increase our debt with banks or bondholders.

As possible managers of Philips we would have to look for some solutions to reach a point in zone A, but maintaining our solvency ratio in the same level or above.

So the point would be divided on two different options: reducing the cash-cycle or getting a larger payment-cycle.

21. Long term risk

Table 4: Long term ratios

As we did with the short term risks table, now we are going to analyse the Ratios long term table results.

The first thing is the leverage ratio, which is any ratio used to calculate the financial leverage of a company to get an idea of the company's methods of financing or to measure its ability to meet financial obligations. There are several different ratios, but the main factors looked at include debt, equity, assets and interest expenses, on this case we have taken into account assets and equities. Our result is 2,60 what means that our assets represents 2,60 of our total equities which in a quick view would represents the capacity of the firm for getting greater earnings. We can see in the graph of leverage ratio how has increased this ratio from 2,05 in 2008 until 2,60 of 2012. It means that in the period studied every year our liabilities have been increasing due to equities are lower respect the total assets of the company. A higher part of the assets have been financed by debt.

Next point is ROE (returns on equity) that indicates how much the shareholders earned on their investment in the company. A higher percentage would be better. On our case the ROE is 2%. This result would be used by the investors to compare different companies of the same sector.

Third step is Margin Ratio; this ratio shows us the percentage of net income related to our sales income which is about a 1%.

And the last point I want to emphasize is the turnover ratio, which refers to the amount of sales over total assets. A high proportion of turnover is a sign that the company is the production and sale of its products or services very quickly.



22.Currency risk

Currency risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates.

This kind of risk could impact Philips' financial results. Given the fact that Philips exports into lots of countries and it also import from them, is constantly in touch with the currency risk.

Exemplary the total net fair value of hedges related to transaction exposure as of December 31, 2012 was an unrealized asset of EUR 25 million.

Philips' policy generally requires committed foreign currency exposures to be fully hedge using forwards.

So Philips' basic tools to hedge its position against currency risk are options, forwards or combination thereof. It has to be commented that as we all know hedging activities won't eliminate all currency risk; due to constant currency changes Philips average hedges of currency risk is 18 months.

Finally, we think it is important to say that Philips does not currently hedge the foreign exchange exposure arising from equity interests in non-functional currency investments in associates and available for sale financial assets.

Graph 6: EUR/USD currency risk

Nowadays, we can see on the graph that there is a lot of fluctuation on the currency exchange. We have to hedge this fluctuation, because as an exporter, we can lose a lot of margin if the euro loses its value in front of USD. But if the value of euro increase too much, the demand of our products will be lower, because for the non-European countries are more expensive our products.

23.Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.



Philips had a big outstanding debt so interest rates are very important given the fact of interest payments, what could have a very negatively impact in Philips financial results. So for Philips it is very important to hedge this risk.

Graph 7: Interest rate risk

We can see a negative trend in the interest rate in the last five years. It's good for us, because our debt will be cheaper. But we don't know how much time it will remain constant or decreasing. Because there are some pressures from Germany, in order to increase the interest rate of Europe to reduce its inflation. It could be very dangerous to our firm, because of our exposure to debt.

Just as an example, an increase or decrease of a 1% in interest long-term rate, could affect the fair value of long-term debt which could change positively or negatively more or less about the huge quantity of EUR 422 million.

So, we are able to see the big importance of hedging interest rates, because they can be a trouble in long term risk in addition in short term risk.

24. Appendix

Table 1: Statistic analysis Roy.Philips and Eurostoxx50 (2008-2013)

ROY.PHILIPS ELECTR (PHIA.AS)			STOXX50E		
	Close	var%		Close	var%
MEAN	17,51	0,029	MEAN	2664,00	-0,015
DESVEST	3,84	2,238	DESVEST	368,13	1,806
INTERVAL 66 %	21,36	2,267	INTERVAL 66%	3032,13	1,792
	13,67	-2,209		2295,87	-1,821
INTERVAL 95%	25,20	4,505	INTERVAL 95%	3400,26	3,598
	9,83	-4,447		1927,75	-3,628
MAX	25,07	12,523	MAX	3882,28	11,002
MIN	9,76	-11,506	MIN	1809,98	-7,880
RANK	15,31	24,029	RANK	2072,30	18,882
Variation Coef.	0,22	77,651	Variation Coef.	0,14	122,272
Daily Variation mean	0,029%		Daily Variation mean	-0,015%	
Annual variation mean	0,111		Annual variation mean	-0,053	
Semivariance negative	0,524		Semivariance negative	0,511	
Semivariance negative mean	-1,498		Semivariance negative mean	-1,258	
Beta	0,943		$y = 0,9433x + 0,0391$	$R^2 = 0,5579$	

DATA FROM April-2008 UNTIL April-2013

Graph 1: Regression line

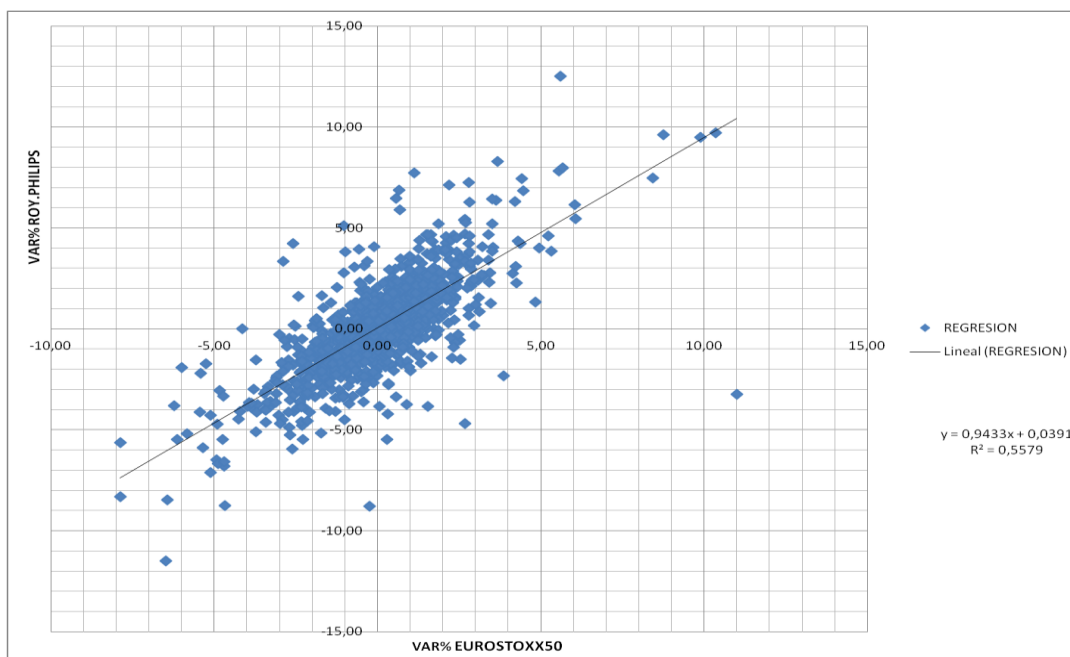
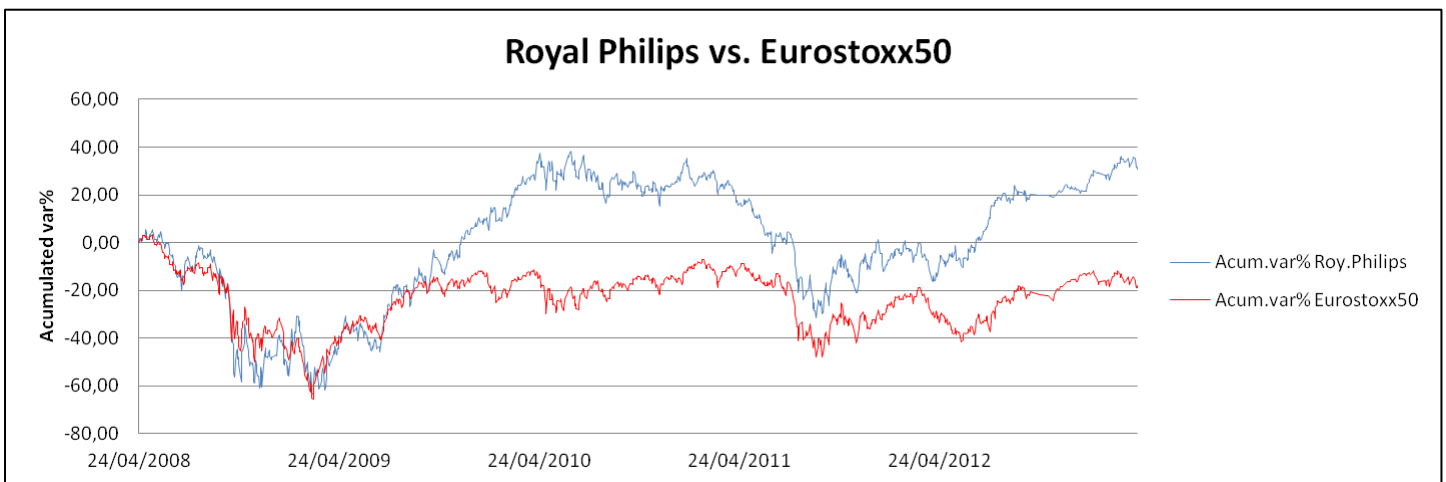


Table 2: Statistic analysis Roy.Philips and Eurostoxx50 (2012-2013)

ROY.PHILIPS ELECTR (PHIA.AS)			STOXX50E		
	Close	var%		Close	var%
MEAN	18,99	0,192	MEAN	2442,21	0,071
DESVEST	2,86	1,452	DESVEST	200,12	1,402
INTERVAL 66 %	21,85	1,644	INTERVAL 66%	2642,33	1,473
	16,13	-1,260		2242,09	-1,331
INTERVAL 95%	24,72	3,096	INTERVAL 95%	2842,45	2,875
	13,26	-2,712		2041,97	-2,734
MAX	23,67	5,734	MAX	2749,27	4,964
MIN	13,73	-5,242	MIN	2068,66	-3,067
RANK	9,94	10,976	RANK	680,61	8,031
Variation Coef.	0,15	7,553	Variation Coef.	0,08	-19,798
Daily Variation mean	0,192%		Daily Variation mean	0,071%	
Annual variation mean	1,016		Annual variation mean	0,295	
Semivariance negative	0,487		Semivariance negative	0,480	
Semivariance negative mean	-0,908		Semivariance negative mean	-1,009	
Beta	0,585		$y = 0,5852x + 0,186$	$R^2 = 0,3227$	

DATA FROM 20-4-2012 UNTIL 19-4-2013

Graph 2: Acumulated var% Royal Philips and Eurostoxx50 (excel)

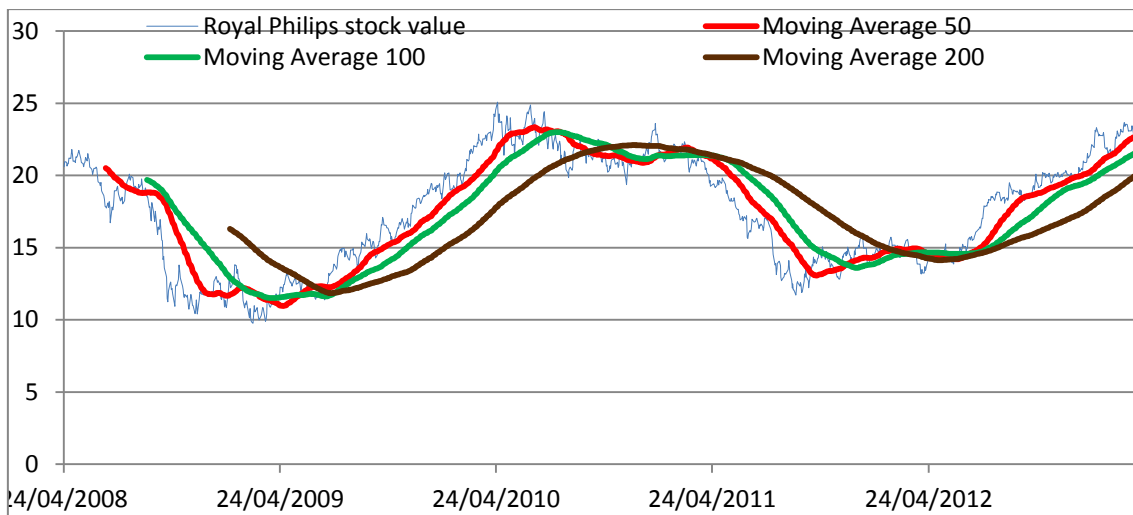




Graph 3: Acumulated var% Royal Philips and Eurostoxx50 (Yahoo website)



Graph 4: Moving average 50,100,200 days Royal Philips (excel)



Graph 4: Moving average 50,100,200 days Royal Philips (Yahoo website)



Table 3: Short term ratios

Short term risk		
Working Capital (solvency)	Current assets-current liabilities	2573,00
Solvency Ratio	Current Assets/current liabilities	1,26
	(Current Assets-Inventories)/Current Liabilities	0,91
Acid test	(Current Assets-Receivables-Inventories)/Current Liabilities	0,45
Average Period of cash(APC)		
	(Receivables/Sales)*365	67,51
Average Period of payment(APP)		
	(Payables/Purchases)*365	67,38
Average Period of producton(APPr)		
	(Inventories/Cost of production)*365	82,95
Cash cycle(Liquidity)		
	Average period of payment-Average period of income	-0,13

Graph 5: Solvency vs. Liquidity

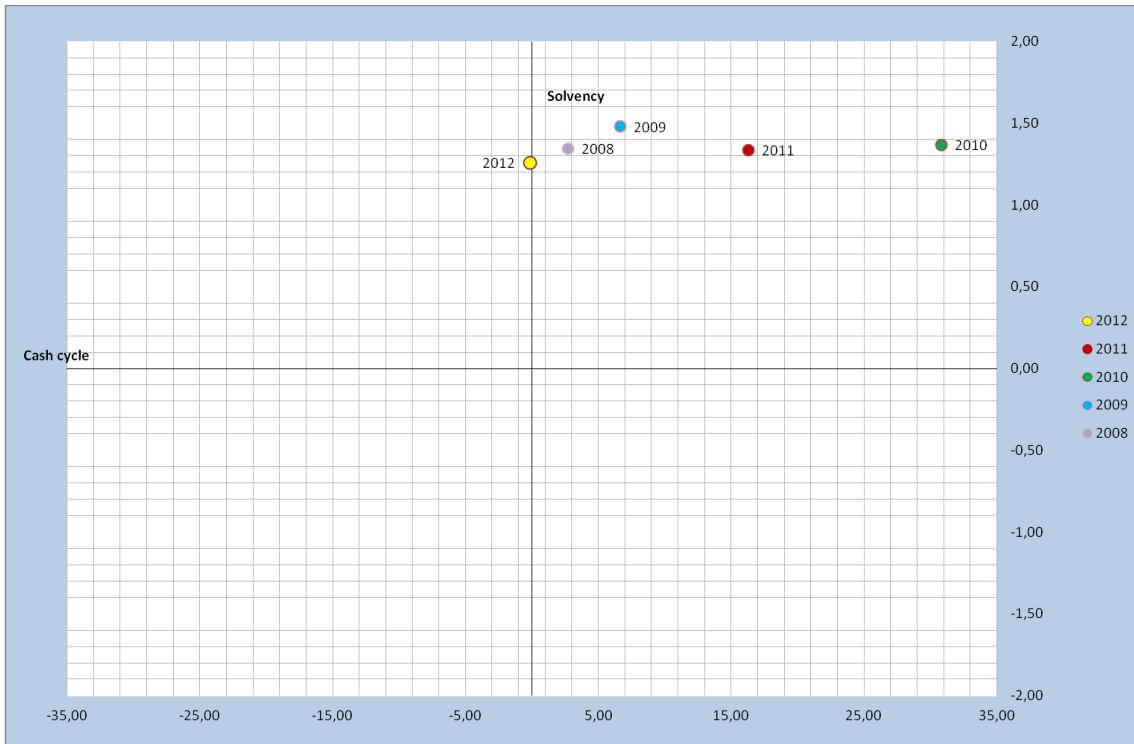
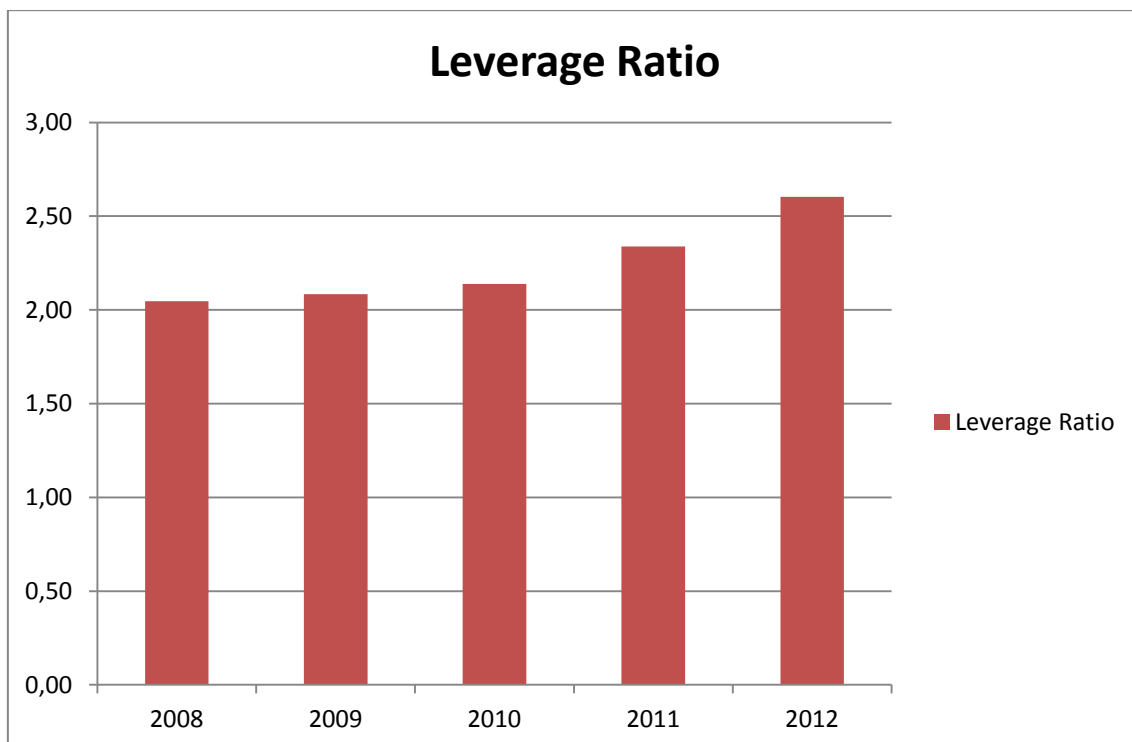


Table 4: Long term ratios

Ratios Long term			
Leverage Ratio	2,60	Assets	29079
		Equities	11174
ROE	0,02	Net Income	231
Return on equities		Equities	11174
Margin ratio	0,01	Net Income	231
		Sales	24788
Turnover ratio	0,85	Sales	24788
		Assets	29079
1+(Liabilities/Equities)	2,60	Assets	29079
		Equities	11174





Graph 6: EUR/USD currency risk

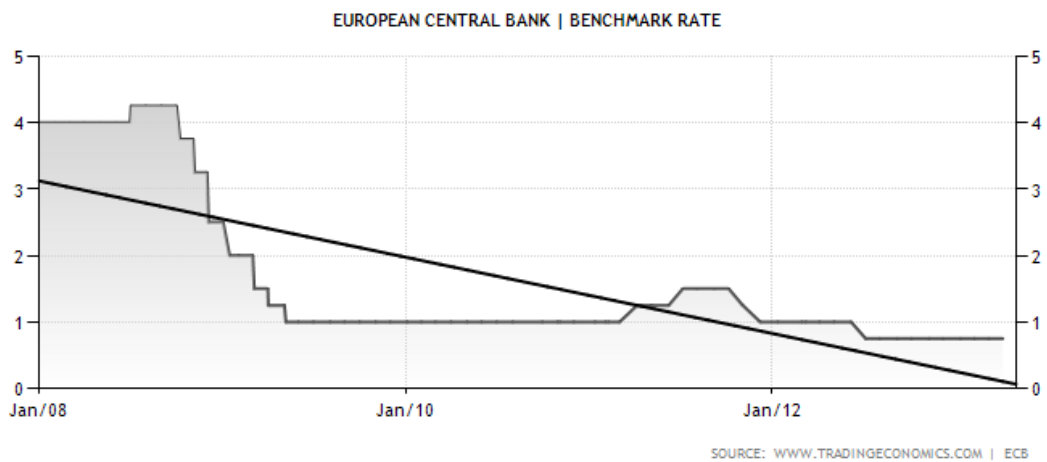
EUR/USD (EURUSD=X) - CCY

[+ Add to Portfolio](#)

1.3029 + 0.0003(0.02%) Apr 26



Graph 7: Interest rate risk





PROFITABILITY ANALYSIS

PHILIPS
sense and simplicity





INDEX THIR PART

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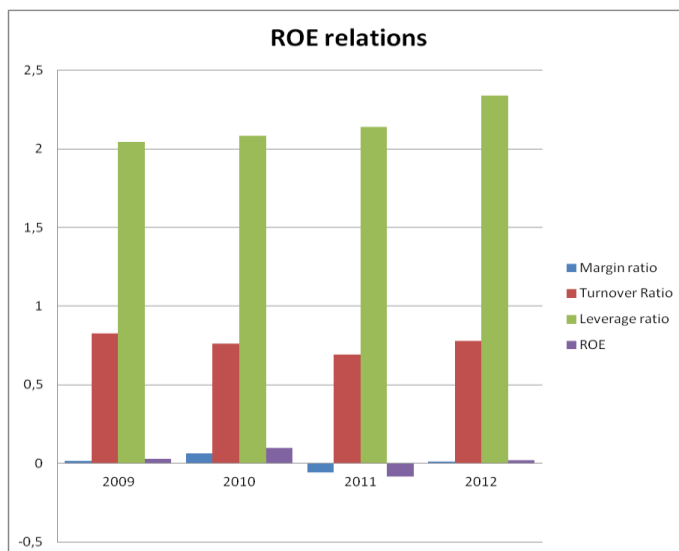
PHILIPS' PROFITABILITY

25. ROE RELATIONS

When we think in investing in a firm, we have to take into account aspects like firm's risk, in which industry is it working, but the most important point when deciding in which firm you will invest is profitability. It has different tools to analyze it.

In this third and last part of the work our objectives is to explain in the clearly and most summarized way how profitability works and specifically how it works in our firm, PHILIPS.

As we all know, Roe means Return on Equity, and it is a measure of profitability, to be more accurate it represents firm's financial profitability. ROE shows how the firm uses investments funds to growth and at same time measures which is the return for each euro invested into the firm.



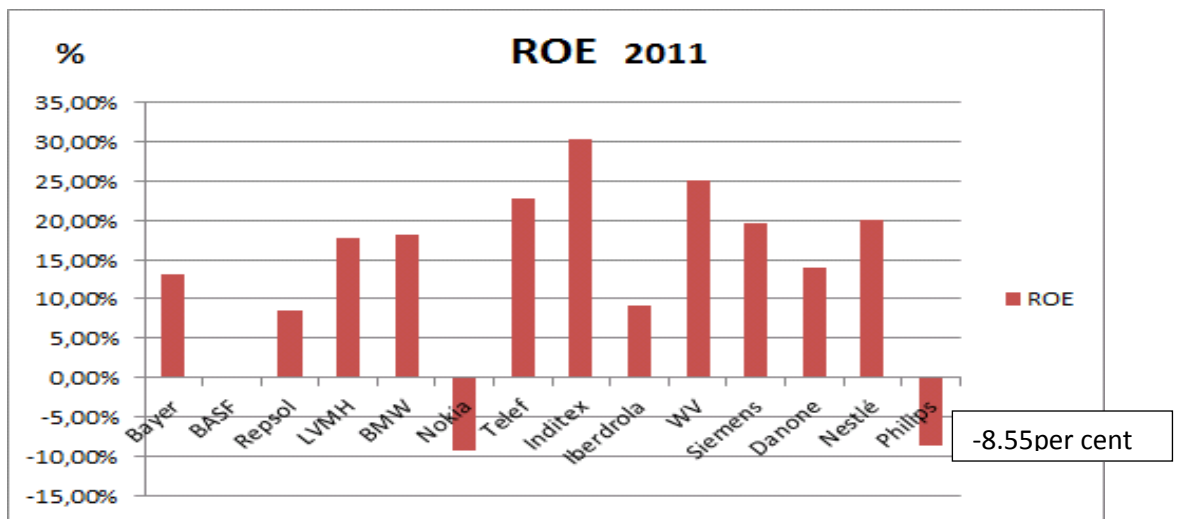
So the first point we think it has to be noted when analyzing Philips profitability is our own ROE. In this case we analyze ROE for 2009 to 2012, in addition we show into the graph Turnover ratio, Leverage Ratio and Margin Ratio.

$$ROE = \frac{Net\ Income}{Revenues} \times \frac{Revenues}{Assets} \times \frac{Assets}{Equity}$$

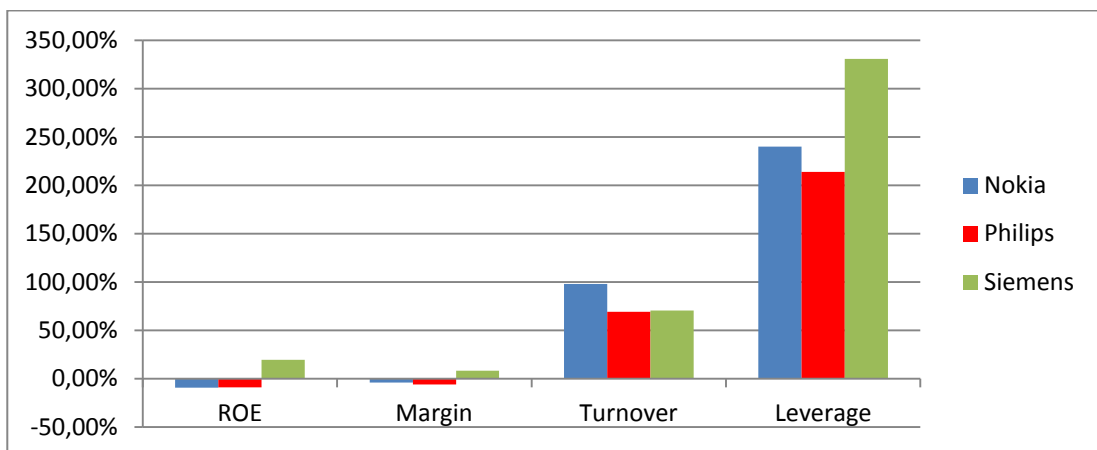


The first relation is Margin ratio, the second one the turnover and the third one Leverage ratio.

If we continue with the graph analysis, it has to be commented that 2011 has a negative ROE and that is because of the negative margin ratio, which allows us to conclude that margin ratio has a great influence in ROE final result. Many times we can think that a ROE result is enough to take a conclusion about company's profitability but it is not, because to get an idea of how well is our ROE it would be very useful to compare it with other firms.



Basing on the firms analyzed by classroom colleagues, we have selected NOKIA and SIEMENS because they are the most similar to PHILIPS.



We are able to see that Nokia in 2011 also has a negative ROE in addition a negative Margin Ratio what could mean that even our negative ROE our result could be not as bad as it seems in a first sight because could be a general negative effect on the industry, that doesn't mean that a negative ROE it is something good but at same time after having compared with



Nokia is not as bad as we thought. But then looking to SIEMENES we see it has a positive ROE and that means that probably is not an industry problem but it is something deeper.

By analyzing profitability in a wide range, we will be able to understand more this negative ROE.

26. ECONOMICAL VS FINANCIAL PROFITABILITY, AND COST OF CAPITAL (K)

When analyzing profitability there are also some very important points that have to be taken into account, these factors are ROA (Return On Assets), ROE bt (before taxes), K (cost of capital), J (banks sensitivity to lend money to firms due to their debt ratio), among others.

ROA it is as well as ROE a very good indicator of profitability, and also has to be in every investor's mind. ROA is return on assets, in other words, how much profitable is a firm related to its assets. It indicates the economical profitability of the firm. The most important difference between ROA and ROE is that the first one doesn't take into account the indebtedness of the company.

We think it also has to be highlighted the concept ROE before taxes, by doing that we will be able to see which is the incidence of taxes in our net income results.

The results obtained for Philips ROA and ROEbt are the following ones, with now we are going to study.

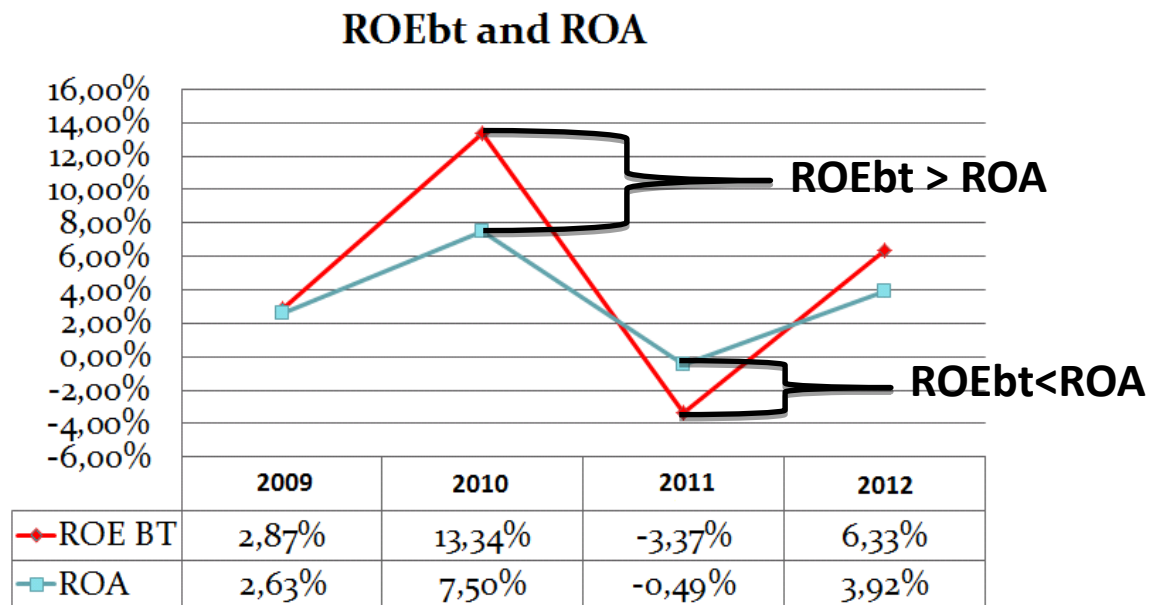
		2009	2010	2011	2012
ROE bt	EBTt/Equities t-1	0,028730	0,133	-0,03372	0,06328
ROA	EBIT t/Assets t-1	2,63%	7,50%	-0,49%	3,92%

Directly related with ROE showed at the beginning in this ROEbt and ROA table, we also have negative values for 2011 that is because the firm had losses that year, so both EBIT t



and EBT t were below zero. 2011 is a very interesting year to analyze cause if we take into account the generally positive trend of Philips it is at least surprising these negative values, from profitability side they have lots of things to be studied in a deeper way.

In order to continue with profitability analysis, we have compared ROA and ROE bt from 2009 to 2012, by doing that we want to understand if it is ROE more important than ROA when talking in profitability terms or is the inverse or both have they own particularities. To see this comparison we have made the following graph:



It has to be said we are not 100 per cent sure that this is a very useful table, but we think that we have to complement all theory methods with some personal ideas that from our opinion could be interesting for anyone that wants to invest in Philips.

So, we have highlighted two points we think could be quite interesting to talk about, the first one is year 2011; from the beginning and until the end of this third part we are going to see negative values for 2011 and also the reasons of why it is like that. The advantage of looking in different profitability tools is that at the end we are able to compare and mix it, what means we can have a great idea why negative numbers are negative and why the positives ones are positive. The second point is 2010, ROE bt is higher than ROA which for our point of view means that firm would have to lever up, but as we are going to see in a brief, it is just not as easy as it seems. We have to introduce the “K”, cost of capital or cost of debt, why? Because sometimes ROE bt will be telling you as a manager of a firm that you should lever up with the aim of increasing your returns, but you mustn’t forget that ROE bt just no included



this K, so even it could clearly seem that we have to answer to a positive ROE bt higher than ROA in a particular way, things go further than that. As we will see now, K concept is very important in ROA too.

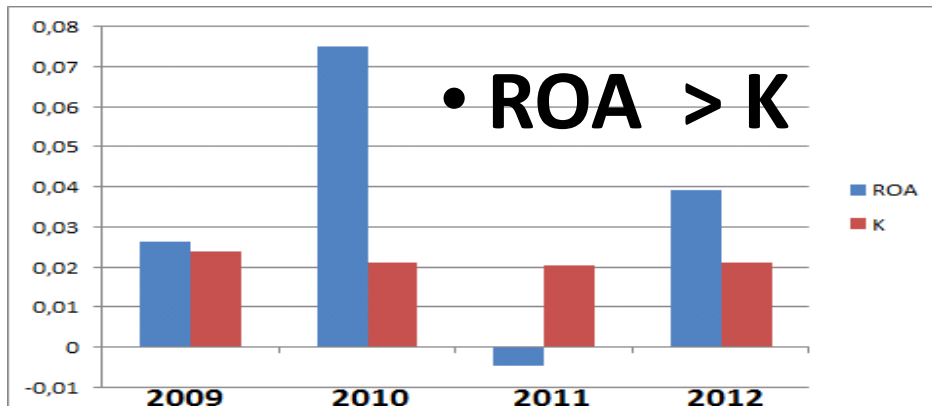
To study K parameter we have constructed the following table, or what is the same, we have calculated this cost of debt between 2009 and 2012.

		2009	2010	2011	2012
K	euribor + premium risk	0,02396274	0,02109173	0,020492519	0,02123424
	Interest/Liabilities t-1	0,02396274	0,02109173	0,020492519	0,02123424

These are the results we have obtained for Philip's cost of capital. There are different ways to calculate this cost of capital, two options are the ones showed in the table, and another one is:

$$K = \text{euribor } (e) + \text{debt ratio} * j$$

It has to be noted that not all firms will have the same cost of debt, and this is a very important aspect because some firms won't be able to increase their profitability in ROA terms even in ROE because they cost of capital would be so higher to lever up, so they growth will be stopped. In Philips case and compared with other firms of EUROSTOXX50 we are very well situated in terms of K given the fact it is quite low and it allows us to lever up ourselves. As we have said before, K is very close to ROA concept, why? Because ROA is the returns on assets that we obtain for every 1€ invested and in lots of cases a great amount of this total assets are financed by leverage. So it would be very important to have always a ROA higher than the cost of debt. To see Philips case, we have done this graph:



Before, we said we were going to see more reasons of why 2011 ROE was negative, so here we can see another cause that is a K higher than the ROA, so: Why a higher K means can mean a negative ROE? Because ROE_{bt} it is a function of both ROA and K, so in case of a negative ROE_{bt}, ROE would be negative too due to the fact that we have not taken into account taxes that will minimize our results.

The function of “f ROE_{bt} (ROA, K) is:

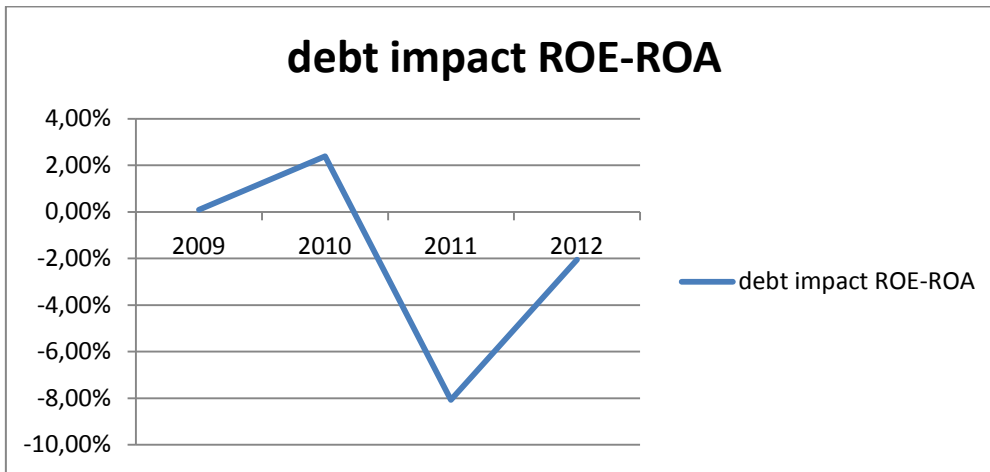
$$ROE_{BT} = ROA + (ROA - K) * \frac{Liabilities}{Equities}$$

27. DEBT IMPACT

Another interesting point or comparison we think could be interesting to comment is the difference between ROE and ROE before taxes. From our opinion by doing that we would be able to see the debt impact that Philips suffers every year, so the importance of the indebtedness of the firm. . In addition debt impact is also directly related with cost of capital (K). After comparing results from 2009 to 2012 we have obtained the following results.

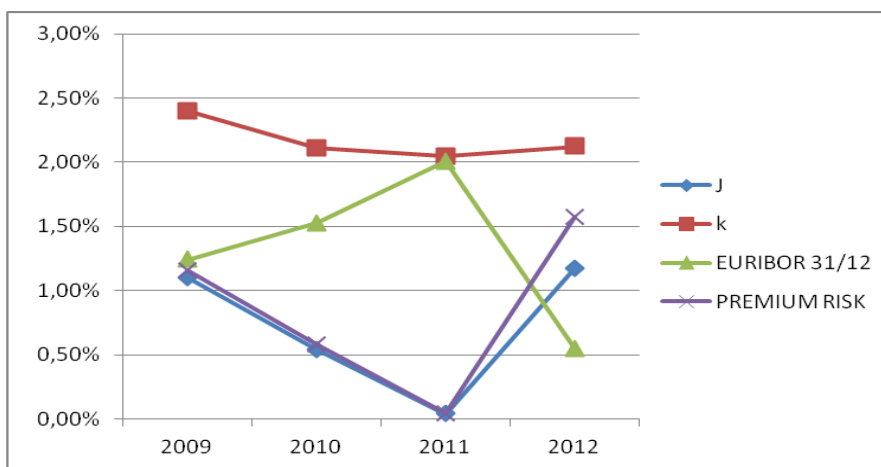
		2009	2010	2011	2012
ROE	Net Income t/Equity t-1	2,72%	9,89%	-8,55%	1,86%
ROA	EBIT t/Assets t-1	2,63%	7,50%	-0,49%	3,92%
DEBT IMPACT	ROE-ROA	0,09%	2,39%	-8,07%	-2,06%

And the following graph:



Looking to the graph we can see the positive effect in 2009 and 2010, in 2011 we can see a big negative impact (another of the reasons of the negative results and ROE for this year). Finally in 2012 even the negative impact, we can conclude that firm is still recovering from 2011, so Philips is coming back to good situation.

In order to understand or know a little more of Philips' profitability we have calculated "J", in other words, sensitivity of banks on lending money to Philips, which it is very important because it has a big influence on debt ratio, leverage ratio and cost of capital. As we have seen before with K formula, sensitivity of banks (J) is very related to debt ratio (liabilities/equities), and also will determine the value of K. As J there are other factors than can change (increase or decrease) K's value. In the next graph we see the roles that play these different factors. Remember than K can be calculated by euribor and J or euribor and premium risk.

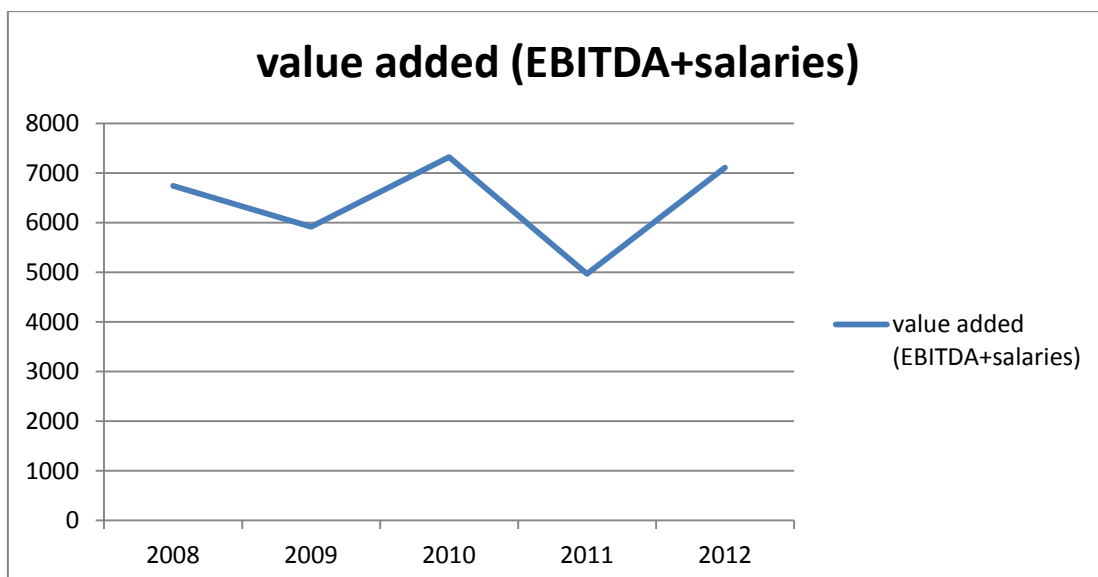




Philips K values are really good because comparing with other firms of EUROSTOXX50 debt could be quite more expensive, but on our case, given the fact that good decisions were taken respect debt, K can be a positive factor to play with, in addition what it is important too is that K value is more or less always constant what means Philips' managers are really good negotiators. The difference between K and euribor is equal to the premium risk, which on 2011 is really close to zero. It is interesting to see euribor's evolution, how in 2009 is more or less 1.25%, in 2011 is almost 2% and just one year later in 2012 is approximately 0.5%. Why it is interesting to see this evolution? Simply because it can be another reason of 2011 results of all firms, what is the same that, in 2011 the economic situation had another little fall and European Central Bank realized of this fact.

28. VALUE ADDED

We have listened many times that the firm's main aim has to be creating value. Creating or adding value means the increase wealth generated by the company from its activity and its management. Creating value can be a very important aspect when talking about profitability because lots of investors won't just look for a positive ROE neither ROA they will also look for a positive trend on value added. In our case 2011 we have an important drop which stops the positive tendency of value added. In 2012 it recovers its positive trend and we expect that it will follow like that.



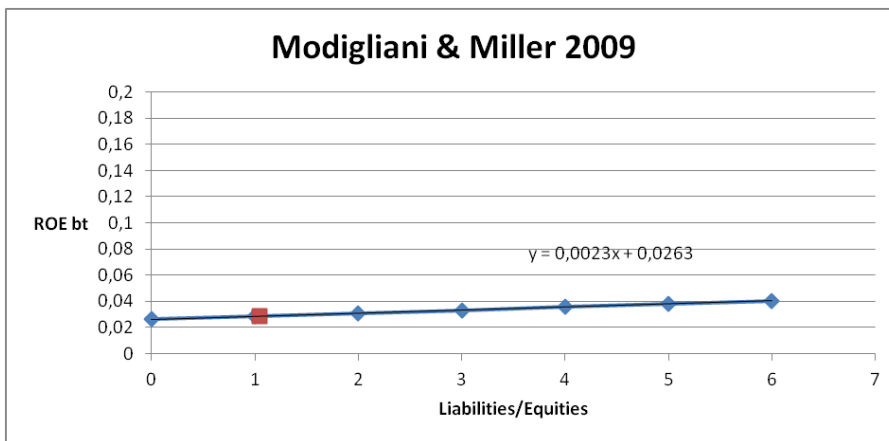


29. MODIGLIANI & MILLER

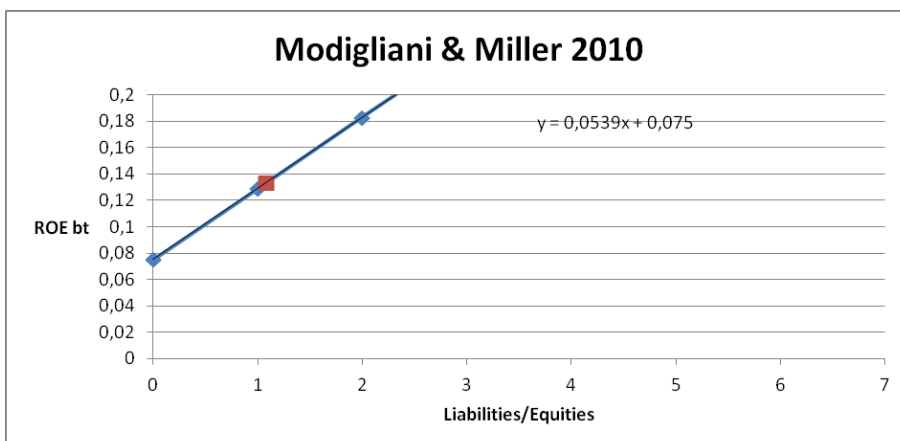
In order to obtain the Modigliani & Miller graphs, we had to calculate the ROA, the K, and the debt ratio that is the same to Liabilities/Equities. We give some values to the debt ratio and we obtain the ROE before taxes for each level of debt using the formula below. Then, we make the graph of this series and we obtain the graphs below. Also, we have put in the graph the values of Philips debt ratio for each year, in order to know where we are in each year.

How we interpret these graphs? Well, first of all the intersection point with the y-axis is the ROA, and the tangent of the angle is the (ROA-K). In other words, also it is said the leverage effect. If we lever up the company, we obtain more ROE bt with this slope (ROA-K).

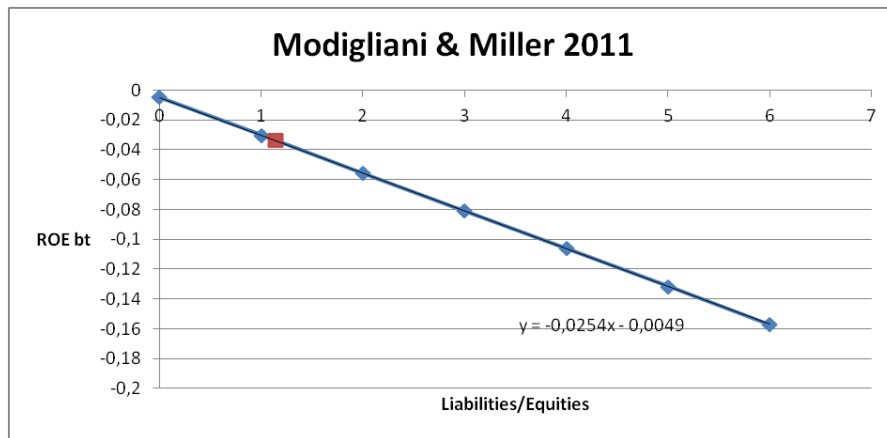
$$ROE_{BT} = ROA + (ROA - K) * \frac{Liabilities}{Equities}$$



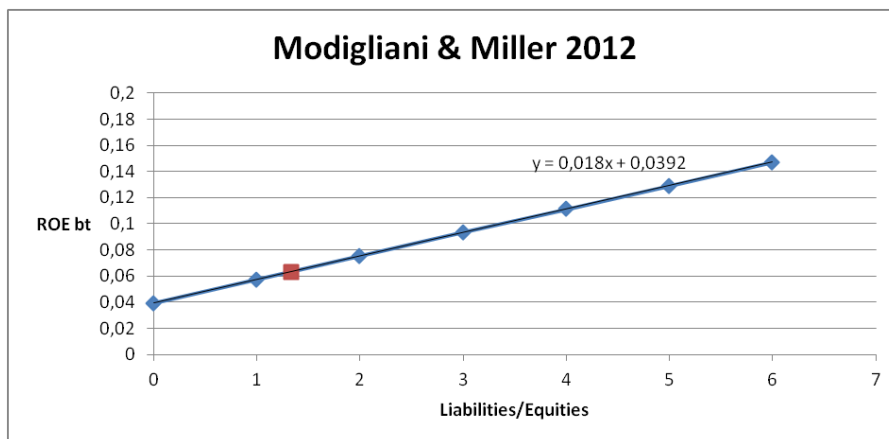
In the year 2009, we can see a low level of ROA and also a low leverage effect. Philips had a debt ratio of 1,04643109 and a ROE bt of 0,02873084.



In year 2010, we can see how the level of ROA had increased and the leverage effect had increased substantially. Philips had a debt ratio of 1,08460803 and a ROE bt of 0,1333652.



In the year 2011, we can see a negative slope and a negative ROA. It is because this year Philips had a negative Net Income. Philips had a debt ratio of 1,13815266 and a ROE bt of -0,03372648.



In the year 2012, things improve and Philips obtain a positive ROA. The leverage effect had been moderated from 2010 and we obtain positive ROE bt. Philips had a debt ratio of 1,33804181 and a ROE bt of 0,06328194.

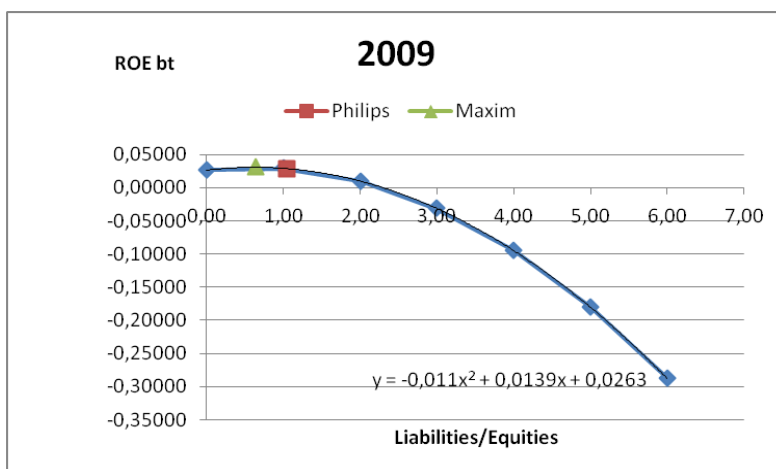
This type of graph is very useful to observe the leverage effect. But we assume that the k is constant. But it is not true at all. The k is the sum of the Euribor and the premium risk where the premium risk is the multiplication of j and the debt ratio (Liabilities/Equities). " j " is the sensibility of the bank to the debt ratio of the company. If we develop the formula, we obtain the formula below.

$$ROE_{BT} = ROA + (ROA - Euribor) * \frac{Liabilities}{Equities} - j * \left(\frac{Liabilities}{Equities} \right)^2$$

We give some values to the debt ratio and we obtain the ROE before taxes for each level of debt using the formula. Then, we make the graph of this series and we obtain the graphs below. Also, we have put in the graph the values of Philips debt ratio for each year, in order to know where we are in each year. We obtain a second grade graphs, parabolic graphs. We want to know which is the optimum level of leverage ratio that makes the maximum ROE bt. In order to know it, we made the first derivative of the second grade equation obtained in each graph and then equaled to zero. If we want to prove that this value is a maximum, we calculate the second derivative and it is negative. Because we went from positive slope to a negative one. In this graph we can observe that with an increasing level of debt ratio, there is a moment that the ROE bt makes negative. It is very useful to know, we cannot lever up the company until the infinite to get better ROE bt like the Modigliani & Miller graphs explains.

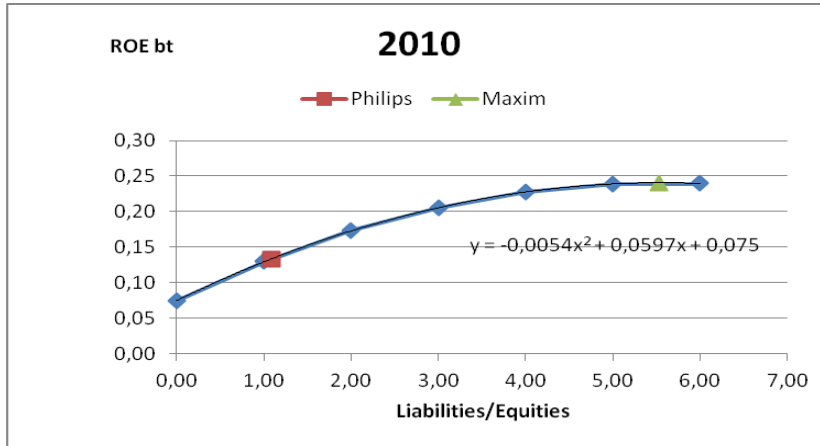
In the graphs below, we have calculated the Philips level of Liabilities/Equities and its ROE bt marked in red. Also we have calculated the optimum debt ratio to have the maximum ROE bt marked in green.

In the year 2009, we have lever up our company more than the optimum level. But in fact, it is not too far away from the maximum. We were in a good position.

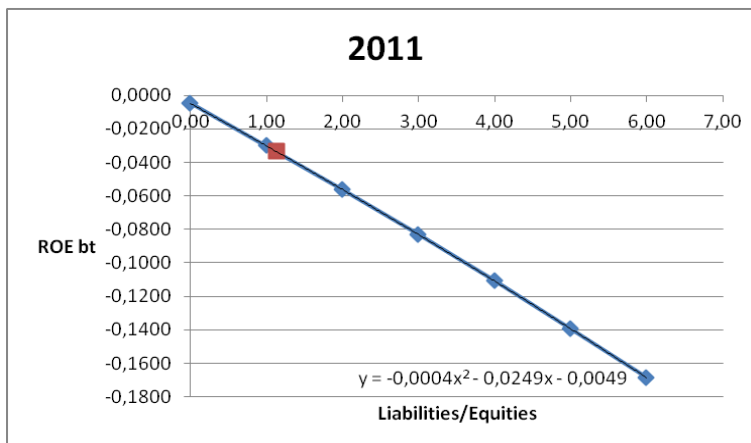




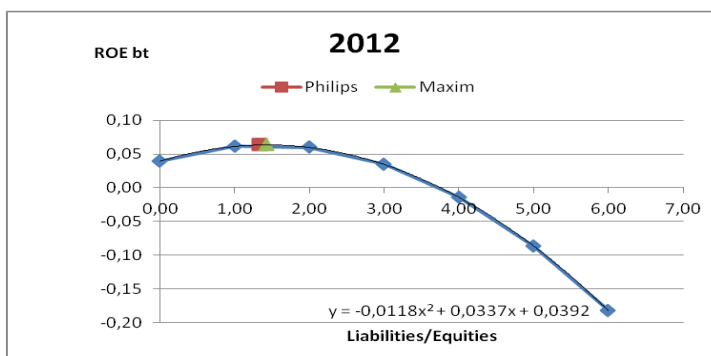
In the year 2010, as we had a high leverage effect. We can obtain the maximum level of ROE bt with a very high level of debt ratio. Far from the Philips point. It is very risky to lever up a company because of one year we could obtain more profitability.



Because, like in this case, in the year 2011, we obtain a negative profitability. And if we had lever up too much our company, we would obtain a very negative ROE bt.

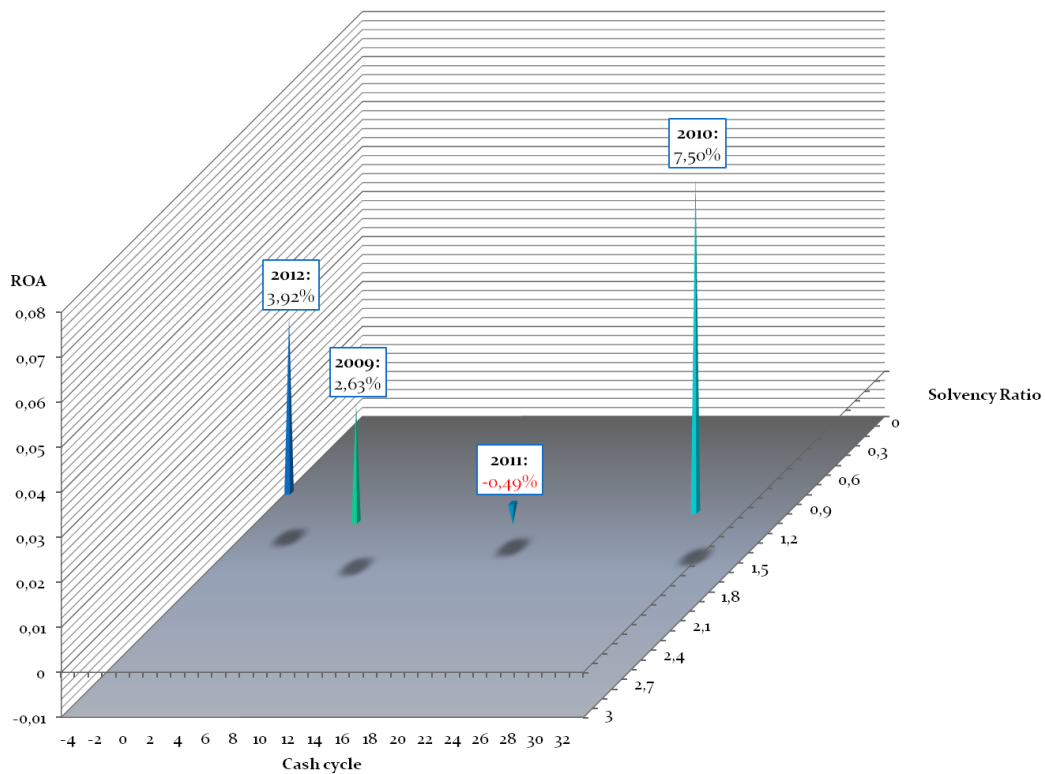


In the year 2012, things have improved a lot. We obtain a positive ROA, and also a positive ROE before taxes. Philips is very close to the optimum level of debt ratio.



30. SHORT TERM RISK VS PROFITABILITY

In the next graph, we want to compare the short term risk with the profitability of the company each year. We have chosen the ROA, because it is the economical profitability. With this parameter we remove the leverage effect from the profitability of the company. Then, to measure the short term risk, we have chosen the cash cycle and the Solvency ratio. Solvency ratio is the proportion between current assets and current liabilities, and we can see that is bigger than 1 which as in the working capital it means we can afford our short term debts in all years. Then we have calculated the cash cycle, than in all years except in 2012, is positive. It means that our customers pays us before we have to pay our suppliers, it is a way to get credit without any interest. In the year 2012 we obtain a negative Cash cycle, but almost zero. It means that nowadays we have to pay a little earlier to our suppliers than we are paid from our customers. We have lost the competitive advantage of financing without interest. In the third axis, to know the z-axis, we put the ROA. It measures the economical profitability of the company for each year. We have to conclude that we have increased a lot the profitability from 2009 until 2010. Then in 2011, we had a bad year and we obtain a negative profitability. In the year 2012, we improved our results and we obtained a positive profitability again.





The bad results of 2011 made the managers of the company take important strategy decisions. In September of 2011, they sold the home entertainment division to a Chinese firm, to know TPV systems. This sector had bad results because of the high competition of the market. Nowadays, the company had focused its efforts to the LED lighting and medical technology.

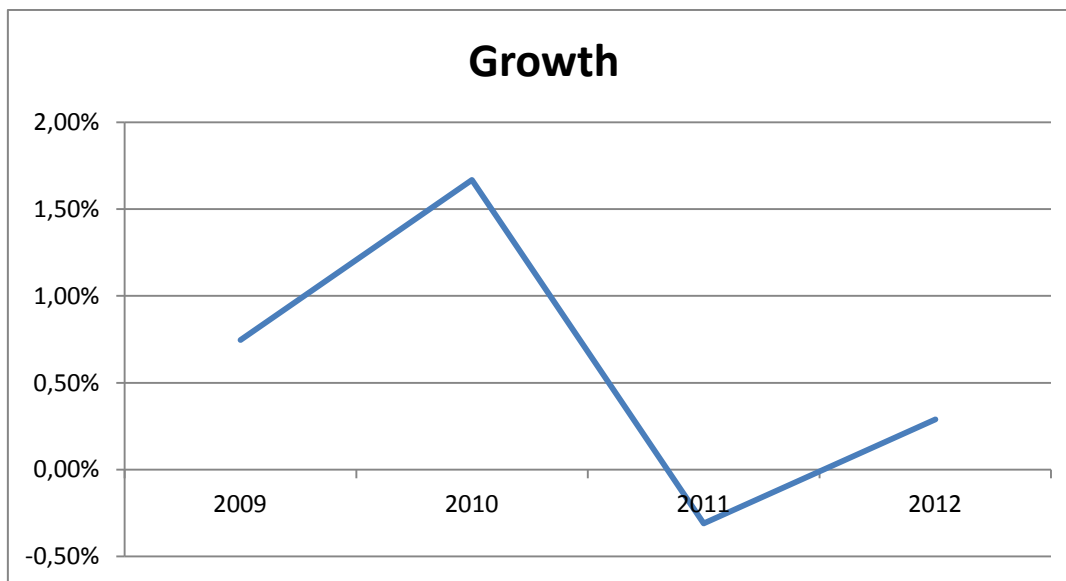
31. GROWTH AND PER

We have calculated the growth of the company in the last years using the formula below.

$$\text{Growth rate} = (1 - \text{payout}) * (1 - \text{tax rate}) * \text{ROA}$$

As we can see, we take into account the pay-out policy of the company, it means how much of the net income go as dividends. Also, we take into account the effective tax rate. And the ROA, that is the economical profitability, without the leverage effect. We can see in the graph, that between 2009 and 2010 we had a high growth. But in 2011 we had a high drop with negative growth. The last year analysed Philips has improved its growth and had positive growth.

	2009	2010	2011	2012
Growth	0,75%	1,67%	-0,309%	0,289%



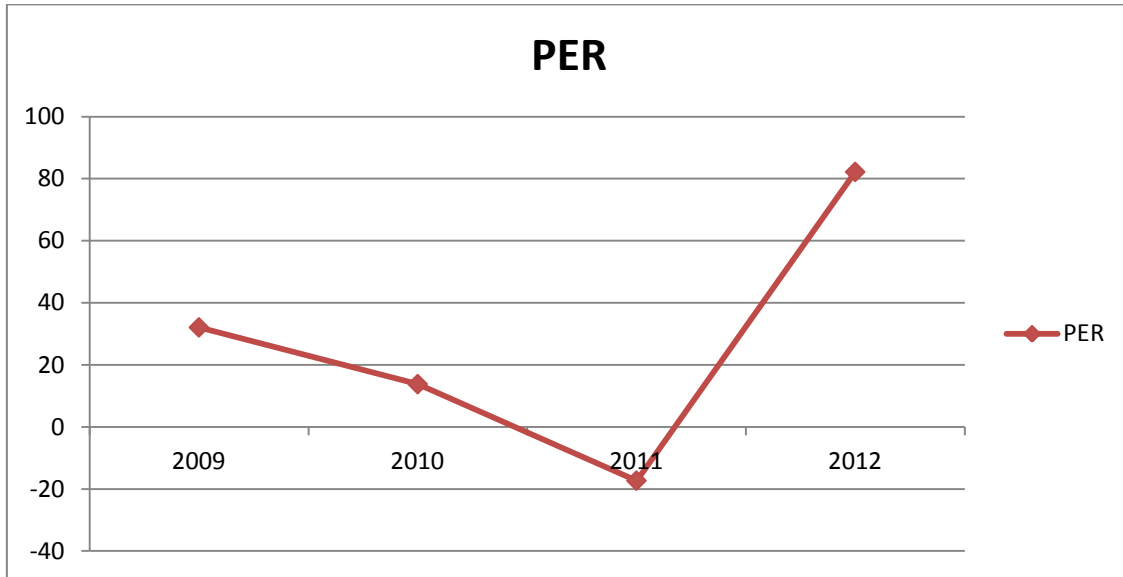
We want to analyse the how much reliable is the price of the Philips share. We have calculated the price to earnings ratio (PER) with the formula below.

$$\text{PER} = \text{Price of share} / \text{Basic earnings by common share (EPS)}$$



A company with a high PER may mean that expectations are more favourable value and future benefits are based on (a predicted growth of these) or that the stock is overvalued, and therefore, it is unlikely that his stock continues to rise.

A company with a low PER may mean that the stock is undervalued and could increase their short-term price (upward trend).



In the case of Philips, as we can see on the graph, from 2009 until 2011 has decreased its PER value. Even we are in a situation where stock or share value increases, on the other hand earnings per common share decreases. It could mean, that the price of the share where overestimated. But from 2011 to 2012 the PER value goes up, because of the price of the share goes down and the earnings per common share were growing. We can conclude that PER value growing collected the good expectations in Philips share.