



## Sustainable Investment and Analysis

Item type	text; Electronic Thesis
Authors	Renzi, J. Tyler
Publisher	The University of Arizona.
Rights	Copyright © is held by the author. Digital access to this material is made possible by the University Libraries, University of Arizona. Further transmission, reproduction or presentation (such as public display or performance) of protected items is prohibited except with permission of the author.
Downloaded	17-Sep-2016 09:31:16
Link to item	<a href="http://hdl.handle.net/10150/146637">http://hdl.handle.net/10150/146637</a>

SUSTAINABLE INVESTMENT & ANALYSIS

By

J. TYLER RENZI

---

A Thesis Submitted to The Honors College

In Partial Fulfillment of the Bachelors degree With Honors in

Finance

The University of Arizona

May 2010

Approved by:

---

Dr. Sharon Garrison  
Department of Finance

## The University of Arizona Electric Theses and Dissertations Reproduction and Distribution Form

Name:	Renzi, John Tyler
Degree Title:	Bachelor's in Business Administration
Honors Area:	Finance
Date thesis submitted to Honors College:	05/05/2010
Title of Honors thesis:	Sustainable Investment and Analysis
The University of Arizona Library Release	<p>I hereby grant to the University of Arizona Library the nonexclusive worldwide right to reproduce and distribute my dissertation or thesis and abstract (herein, the "licensed materials"), in whole or in part, in any and all media of distribution and in any format in existence now or developed in the future. I represent and warrant to the University of Arizona that the licensed materials are my original work, that I am the sole owner of all rights in and to the licensed materials, and that none of the licensed materials infringe or violate the rights of others. I further represent that I have obtained all necessary rights to permit the University of Arizona Library to reproduce and distribute any nonpublic third party software necessary to access, display, run or print my dissertation or thesis. I acknowledge that University of Arizona library may elect not to distribute my dissertation or thesis in digital format if, in its reasonable judgment, it believes all such rights have not been secured.</p> <p>Signed: _____ Date: _____</p>

## **Abstract**

As sustainability becomes increasingly more important to large, multi-national corporations, it has become just as significant to investors and their investment strategies. As both students and investors for the University of Arizona Foundation, we believe that sustainability – like most financial data– is extremely important when making an investment decision. Our research showed that sustainability is very different from corporate social responsibility in that the sustainability approach does not focus solely on fixing environmental or social problems. Rather, sustainable companies have a keen eye for keeping these issues in mind while delivering sustainable products that ultimately add to shareholder value. With such a wide range of issues in mind, sustainable companies consistently proved to have management teams that effectively and successfully dealt with these problems simultaneously. In order to understand why companies are considered “sustainable”, we found it necessary to examine the Dow Jones Sustainability Index (DJSI), what qualifies a company for the DJSI, and how companies are ranked within the index. Finally, we used the sustainability criteria recommended by fellow classmate Long Hoang Diep to evaluate the financial impact that sustainability aspects have had on Intel Corporation.

## Defining CSR – Two Sides to Every Coin

Increasingly over the past decade or so, Corporate Social Responsibility (CSR) has become a major factor to a variety of finance professionals. CSR – much like any “normal” financial fundamental – is now considered to be tremendously important in everything from financial valuation to the strategic planning and decision making of large corporations. But, what does CSR really mean? Sure, the words *Corporate, Social, and Responsibility*, provide some foundation for the concept; but in reality, CSR is a very dynamic, ever-changing idea. Its true value is held and known only by each individual stakeholder.

CSR can be traced back to the 1950s and 1960s. It was during this period that many businesses actually began to donate significant amounts of money to charities and local communities. From this point on, several schools of thought regarding CSR began to emerge. In rather broad terms, scholars and investors alike formed two distinct opinions.

The first school of thought, which American economist and Nobel-prize winner Milton Friedman largely advocated, focuses on maximizing profits for the firm. Friedman largely believed that CSR was detrimental to a company because it reduced shareholder value. In 1962, Friedman wrote, “There is one and only one social responsibility of business – to use its resources and engage in activities designed to increase its profits...” (Friedman, 1970)

Much to the contrary, others believe that CSR is both a function of business as well as a duty for corporations to give back to their employees and communities. Harold Johnson, an advocate for this form of CSR, went so far as to say that “responsible firms” should be held accountable for the well-being of its “employees, suppliers, dealers, local communities, and nation”, just as they are held accountable for achieving high levels of profit (Johnson, 1971).

So we see that Friedman and Johnson sparked a debate that has continued to rage on for decades. On the one side, Friedman believes that a business should only focus on being a business. Its goal is to achieve profits for the shareholder and thus, it should achieve maximum revenues while minimizing costs. Friedman, in leman’s terms, believes that CSR is just an additional cost that negatively impacts a corporation’s bottom line.

On the other end of the spectrum, others believe CSR is the complete opposite of an “extra expense”. Johnson believes that CSR can actually add value to a corporation. Companies who achieve a noticeable level of CSR may actually become more appealing to their customer base. Many consumers who believe a company is actually contributing to society, the environment, or any other social effort may be more inclined to buy that company’s product. Thus, on some level, CSR may actually help the company to become more profitable as increased sales or enhanced public perception outweighs the costs of CSR.

## Other Definitions

For years many other scholars and organizations have generated their own opinion regarding CSR. The following “definitions” could be found somewhere on the spectrum between Friedman and Johnson’s classifications of CSR:

The notion of companies looking beyond profits to their role in society is generally termed corporate social responsibility (CSR)...It refers to a company linking itself with ethical values, transparency, employee relations, compliance with legal requirements and overall respect for the communities in which they operate. It goes beyond the occasional community service action, however, as CSR is a corporate philosophy that drives strategic decision-making, partner selection, hiring practices and, ultimately, brand development (McComb, 2002)

*South China Morning Post, 2002*

The social responsibility of business encompasses the economic, legal, ethical, and discretionary expectations that society has of organizations at a given point in time (Carroll, 1979).

*Archie B. Carroll, 1979*

CSR is about businesses and other organizations going beyond the legal obligations to manage the impact they have on the environment and society. In particular, this could include how organizations interact with their employees, suppliers, customers and the communities in which they operate, as well as the extent they attempt to protect the environment (Lea, 2002).

*The Institute of Directors, UK, 2002*

CSR is a consistent pattern, at the very least, of private firms doing more than they are required to do under applicable laws and regulations governing the environment, worker safety and health, and investments in the communities in which they operate (Portney, 2005).

*Eller College of Management Dean Paul Portney, 2005*

## Discussion

From the definitions above, it is clear that CSR is unique to the individual or organization charged with defining it. However, one may notice several large differences between the definitions provided by the *South China Morning Post* and Archie B. Carroll as opposed to those provided by *The Institute of Directors* and Dean Paul Portney.

First, the *South China Morning Post* (SCMP) – Hong Kong and Southeast Asia’s largest provider of English finance and investment news – uses words like “compliance with legal requirements”, “ethical values”, “transparency”, and “corporate philosophy” as descriptors of

CSR. Generally speaking, these *requirements* are used in many definitions of CSR. The SCMP, while providing very limited specifics, implies that CSR is still a function of company's core business. Ultimately, CSR will drive how a company operates (i.e. with regard to hiring, relationships that are formed, brand development) and thus, CSR will have some level of impact on a company's success. However, unlike other definitions, SCMP refers to CSR as "the notion..." that these things will actually happen. Through this definition, the SCMP recognizes that CSR has no perfect definition and is actually an imperfect concept. SCMP does not actually specify how a corporation can achieve CSR.

Like SCMP, Archie B. Carroll – Director of Nonprofit Management at the Terry College of Business at the University of Georgia – also gives a very broad definition of CSR. He too correlates CSR to the "economic, legal, and ethical" expectations that society has of its corporations. Carroll does not list any specific requirements of these corporations but rather implies that CSR is directly related society's expectations, which may or may not change at any point in time. Again, Carroll's definition reflects the idea that CSR is ever-changing and that there are no requirements specific to achieving CSR or some level of CSR.

*The Institute of Directors* (ID) and Dean Paul Portney have a very different perception of CSR. In opposition to SCMP and Archie Carroll, both the ID and Dean Portney's definitions list unambiguous requirements that companies must achieve to be considered socially responsible. Notably enough, both the ID and Dean Portney refer to how companies interact with employees (i.e. worker safety and health). Both definitions also state that CSR is achieved through some sort of "investment" in the community in which the company operates and with some regard for the impact a corporation has on its surrounding environment. These definitions, as opposed to the two discussed above, are very concrete and thorough in that they list requirements or obligations that companies must realize in order to accomplish CSR.

In summary, it is clear that there is no perfect definition of CSR. On one side of the spectrum, many believe that CSR is detrimental to a corporation because it does not focus on achieving profits and increasing shareholder value. On the other hand, achieving some level of CSR and having a positive impact on the likes of employees, the environment, and the communities in which the corporation operates can enhance public perception and ultimately the bottom line - even despite extra costs.

No matter the definition, investors should be wary and critical of the activities in which "socially responsible" companies chose to participate. Both the potential positives and negatives of being socially responsible must be carefully weighed before an investment is made. The investor must decide first, if a "socially responsible" company can achieve desired returns with its level of social investment; and second, how important the notion of social investment is to the portfolio or to investor individually.

## The Dow Jones Sustainability Index

The Dow Jones Sustainability Index (DJSI) follows the financial performance of leading corporations who are committed to sustainability. It is important to realize that the DJSI tracks companies committed to corporate sustainability (CS), and not necessarily CSR. CS, while it may include many aspects of CSR, does not always focus on environmental and social problems. Rather, CS is concerned with a company's ability to deliver sustainable products and services.

The DJSI can be broken down into the following four indices: DJ World Index, DJ STOXX, DJ North America, and DJ Asia Pacific.

The chart below gives a brief description of each index, its largest sector allocations, and its largest country allocations.

*Table 1: Dow Jones Sustainability Indices*

Index Name	Description	Major Sector Allocations	Major Country Allocations
DJ World Index	Comprised of top 10% of world's 2,500 largest companies in terms of sustainability	1) Financials – 21.6% 2) Consumer Goods – 14.2% 3) Health Care – 11.2%	1) USA – 25.0% 2) UK – 20.0% 3) Swiss – 8.3% 4) Japan – 5.5%
DJ STOXX	Tracks leading companies in terms of sustainability in Europe and the Euro Zone	1) Financials – 28.1% 2) Consumer Goods – 16.5% 3) Health Care – 10.5%	1) UK – 28.1% 2) Swiss – 17.5% 3) Germany – 15.3% 4) France – 12.9% 5) Spain – 11.5%
DJ North America	Covers top 20% of North America's 600 largest companies in terms of sustainability	1) Technology – 18.0% 2) Financials – 16.8% 3) Oil & Gas – 12.3%	1) USA – 87.2% 2) Canada – 12.8%
DJ Asia Pacific	Follows top 20% of Asia's 600 largest corporations in terms of sustainability	1) Financials – 25.1% 2) Consumer Goods – 18.6% 3) Industrials – 15.9%	1) Japan – 54.5% 2) Australia – 28.8% 3) South Korea – 10.9%

Source: [http://www.sustainability-index.com/djsi\\_pdf/publications/Factsheets](http://www.sustainability-index.com/djsi_pdf/publications/Factsheets)



In order to generate these indices, the DJSI must be able to properly rank the top companies in terms of sustainability. The Dow Jones ranking system is broken down into three different areas: economic, environment, and social. Within these areas, the DJSI gives specific criteria that must be met in order for a company to be considered sustainable. An individual corporation or company achieves its weighting based on the criteria in these three areas as well as industry specific criteria.

*Table 2: Criteria and Weights of DJSI*

Category	Criteria	Weighting (%)
<b>Economic</b>	Codes of Conduct/Compliance/Corruption & Bribery	6.0
	Corporate Governance	6.0
	Risk & Crisis Management	6.0
	Industry Specific Criteria	Depends on Industry
<b>Environment</b>	Environmental Reporting	3.0
	Industry Specific Criteria	Depends on Industry
<b>Social</b>	Corporate Citizenship/Philanthropy	3.0
	Labor Practice Indicators	5.0
	Human Capital Development	5.5
	Social Reporting	3.0
	Talent Attraction & Retention	5.5
	Industry Specific Criteria	Depends on Industry

Source: [http://www.sustainability-index.com/07\\_html/assessment/criteria.html](http://www.sustainability-index.com/07_html/assessment/criteria.html)

While we had mentioned earlier that CS was fundamentally different from CSR, the DJSI clearly incorporates aspects of both concepts into its ranking system. As one might expect, the DJSI system attributes the majority of “sustainable” value to economic and social factors. These two factors – fundamentally speaking – are more closely linked shareholder value. Thus, one would expect them to receive the most weight in the ranking system. However, the DJSI does not completely disregard the correlation of solid environmental practices with sustainable products and companies. The DJSI recognizes that companies who have a smaller impact on the environment will – in all likelihood – be able to produce their products for longer periods of time.

### **Socially Investing (SI)**

Socially Investing (SI) centers on the idea that investors will limit their investments to companies who are considered to be socially acceptable. From this definition, SI would appear to incorporate some level of Corporate Sustainability and Corporate Social Responsibility.

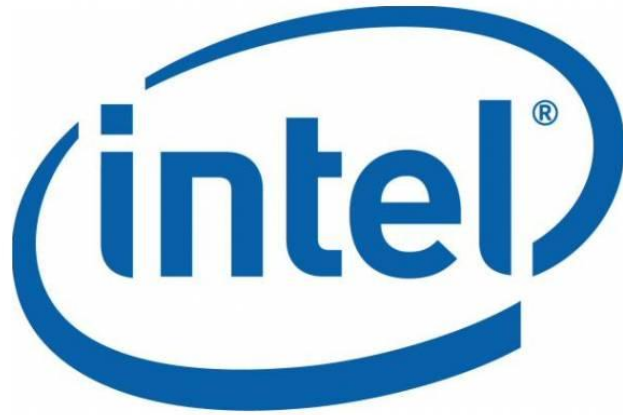
Investors with a Socially Investing approach would – most likely – consider companies that monitor their environmental impact and/or use their resources to tackle social issues. These investors may look at factors like a company's level of pollution or the level of safety the company provides for its workers. The approach, in some form, is driven by what the consumer personally values from a sustainability and corporate responsibility standpoint. These personal values may or may not fall directly under the definition of CS or CSR.

### **Conclusion**

The investors ultimate concern is the return his or her investments will provide – no matter the degree of SI, CS, or CSR. The investor, like anyone else, will question potential returns with regard to the degree of risk of the investment.

In our opinion, successful companies generally engage in some level of SI, CS, or CSR. However, their accomplishments are not dependent on their level of involvement in these areas but rather how successfully they are managed. Companies who are able to generate returns for their shareholders usually have management teams that have a comprehensive view of how those returns are generated. From the management team's view, returns come from a number of different areas; those areas could include anything from solid financial fundamentals, efficiency in production to yes, socially responsible actions. Firms with a greater ability to effectively deal with all of these issues will, most likely, show better returns than competing firms.

Ultimately, SI, CS and CSR can be very important when evaluating a firm, but they should never be considered without quantitative and analytical research.



---

SUSTAINABILITY ANALYSIS

By J. TYLER RENZI

## ***I. Company Background & Products***

Intel Corporation is the world's largest producer of semiconductor chips. The company was founded on July 18<sup>th</sup>, 1968 by Robert Noyce and Gordon Moore. It was formally named Integrated Electronics Corporation with the name "Intel" coming from the formation of "Integrated" and "Electronics". Intel Corp. is based in Santa Clara, California.

In addition to semiconductor chips, Intel also specializes in the production of motherboard chipsets, network interface controllers and integrated circuits, flash memory, graphic chips, embedded processors, and many other devices related to computing and communication. Intel, since its inception, has rapidly pushed the development of the personal computer (PC). In the 1990s, Intel invested heavily in its semiconductor and aggressively became the market-share leader in this technology segment. Since the 1990's, Intel has consistently been ranked as one of the world's top 100 most powerful brands by Millward Brown Optimor.

Intel is also heavily involved in Research & Development (R&D). The company focuses its research efforts on a variety of areas including Tera-scale Computing, Energy Efficiency, and Redefining Mobility. A description of each of these research endeavors is listed below.

- Intel's Tera-scale Computing division focuses on "scaling multi-core architectures to 10s to 100s of cores and embracing a shift to parallel programming". This division is charged with the task of creating platforms that are capable of "performing trillions of calculations per second on trillions of bytes of data".
- Intel's Energy-Efficient System Architecture (EESA) is a "collection of technologies and architectural improvements" that is designed to dramatically increase performance per watt per system from small form factor to high performance servers.
- Intel's Redefining Mobility effort is aimed at designing and creating mobile devices that have "new ways of interacting with the environment" and offer new ways of experiencing internet and data based services. These technologies will incorporate energy efficiency in everything from radio research to wireless sharing.

Aside from extensive R&D, Intel continued to enhance Micro-architecture Silicon technology – both of which vital to Intel's computing and communication efforts.

Micro-architecture is considered to be Intel's "foundation" for its broad array of processors. Intel's innovations in micro-architecture have allowed their microprocessors to become more power efficient while also becoming more "dynamically scalable" to different workloads and technologies. Intel's Micro-architecture division has developed technologies like micro-architecture Nehalem, QuickPath Technology, the Larrabee, the 45nm Intel Core, and the Intel Atom processor.

Similarly, Silicon technology has become a significant part of Intel's core business. Developments in this division of the company have produced "new and innovative process technologies" that are delivering "great leaps in performance, new levels of energy efficiency, and lower cost per function to the end user". Intel recognizes revenues through the production and sale of 32nm, 22nm, and 45nm logic technologies in this division.

Intel's product line includes a vast variety of other products from Wi-Fi technologies to graphics and chipsets to I/O technology and accelerators. Aside from semiconductors and microprocessors, Intel's business focuses on achieving the following two goals: Producing "Revolutionary mobile technologies" and "Powering business".

Intel's mobile technology business is focused on developing advanced technologies that will ultimately create new lines of laptops and other mobile technology. On the other hand, Intel hopes to "power business" by providing advanced "manageability, security, and energy-efficient" that address the daily challenges of business.

#### Recent News

Some of Intel's Q1 2010 results are listed below:

- Revenue: \$10.3 Billion
- Gross Margin: 63%
- Operating Income: \$3.4 Billion
- Net Income: \$2.4 Billion
- EPS 43 Cents
- Stock Price (4/13/10): \$22.77
- Market Cap: \$125.78 Billion
- P/E: 29.38

## ***II. Sustainability Practices***

Intel Corp.'s sustainability practices cover a very wide range of areas and impact a large variety of stakeholders either directly or indirectly involved with Intel. Intel's corporate responsibility and sustainability efforts focus on the following areas:

- 1) Economic Impact
- 2) Governance, Ethics and Engagement
- 3) Environment
- 4) Workplace
- 5) Supply Chain
- 6) Community
- 7) Education

For the purposes of this analysis, we will narrow our focus to our four "sustainability criteria". These criteria, in some shape or form, will encompass the seven criteria Intel lists above. Our criteria are the following:

- 1) Environment
- 2) Human Capital
- 3) Corporation Governance
- 4) Stakeholders

Before we delve into an analysis of these areas, it is important to have a basic understand of the values and strategies that drive Intel's corporate responsibility.

### *Overall Strategy*







Intel attributes much of its success as a business to its company values or "Intel Values". The 2008 sustainability report points out that these values have been fundamental in Intel's ability to be a socially responsible member of the communities in which it operates. The Intel Values are the following: *Customer Orientation, Discipline, Quality, Risk Taking, Great Place to Work, and Results Orientation*. With regard to corporate responsibility, Intel believes that its technology can be the biggest "help" in the areas of "education quality and access, and environmental sustainability". Intel's specific goals for the next five years include trying to "bridge the digital divide" by providing training to teachers and actually putting new technology into the hands of students.




## Criteria #1 Environment

### 1. Environmental performance and targets

In 2008, Intel Corporation set performance goals and targets for concerning both *Climate Change* issues and other environmental areas. Intel's 2008 Corporate Responsibility Report lists the 2012 goals and the progress that has been made toward achieving those goals. The table below summarizes Intel's goals and progress:

Table 1: Intel Environmental Goals and Performance

Environment Goals and Performance		
2012 Goals	2008 Progress Against Goals	
Reduce water use per chip <sup>1</sup> below 2007 levels by 2012.	Tracking against our 2007 baseline, our water use was up 2% on a per chip basis. We are taking steps in 2009 to correct this trend and expect to meet our 2012 goal.	
Reduce absolute global-warming gas footprint by 20% by 2012 from 2007 levels.	Total emissions were down 27% on an absolute basis compared to our 2007 baseline, keeping us on track for our goal, even with expected growth during the next five years.	
Reduce energy consumption per chip 5% per year from 2007 through 2012.	Per chip energy use was down just 1% compared to our 2007 baseline, but we still expect to achieve an average annual reduction of 5% by 2012.	
Reduce generation of chemical waste per chip by 10% by 2012 from 2007 levels.	Chemical waste generated per chip was up 20% over our 2007 baseline, putting us at risk of not meeting our 2012 goal. To drive reductions going forward, we have set additional internal waste goals for processes that we are bringing online in the next two years, and we set up a team to study ways to reduce the use of certain chemicals.	
Recycle 80% of chemical and solid waste generated per year.	We recycled 84% of our chemical waste and 88% of our solid waste in 2008.	
Achieve engineering and design milestones to ensure that Intel products keep the energy-efficiency lead in the market for our next two product generations.	We met our energy-efficiency product targets in 2008.	

 Achieved
  Partially Achieved
  Not Met

<sup>1</sup> Assuming a typical chip size of approximately 1 cm<sup>2</sup> (chips vary in size depending on the specific product).

Source: 2008 Corporate Responsibility Report

### 2. Risk Managements

Intel's Environment Health and Safety (EHS) organization is responsible for managing the company's environmental compliance as well as driving performance improvements in the company's operations. Specifically, Intel maintains that an "environment commitment" is given to all levels of the company's product design and development. Intel recognizes six steps in product life cycles. They are the following:

- 1) Research and Development
- 2) Materials and Equipment Selection
- 3) Chemical Use Approval
- 4) Intel Operations
- 5) Intel Products

## 6) End of Life

Within each of these steps, Intel performs a series of screenings or “checks” to not only improve efficiency but also to eliminate any secondary effects product creation may have on the environment. An example of one requirement that must be met at each stage is shown below:

- 1) R&D – Intel works only with benign semiconductor materials
- 2) Materials & Equipment Selection – Must pass equipment safety requirements
- 3) Chemical Use Approval – Toxicity screenings and Hazard classifications
- 4) Intel Operations – Resource Conservation; Waste reduction and recycling
- 5) Intel Products – Halogen-free and Lead-free products
- 6) End of Life – Community recycling events; EPEAT

The EHS organization, with the help of other Intel divisions, monitors the progress of product creation from start to finish (Responsibility Report, 2008).

### 3. Energy Efficiency

Intel applies energy conservation measures in its global facilities in a multiplicity of ways. Amongst other things, Intel measures and discloses its efforts in *Water Conservation, Reduction in Air Emissions, Chemical Review, Selection, and Use, and Waste Reduction, Reusability, and Recyclability*.

Intel uses production processes to minimize its emissions of volatile organic compound (VOCs) and hazardous air pollutants (HAPs). When these emissions cannot be completely eliminated, the company installs “wet scrubbers”. This technology constantly circulates water that contains a neutralizing agent that helps to remove acidic gases and other contaminants. As a result of these strategies, each U.S. Intel site has been defined as a “minor source” [to environmental pollution] by the EPA (Responsibility Report, 2008).

Intel applies specific strategies across all of the aforementioned areas with the goal of continuing to improve energy efficiency at its facilities.



## Criteria #2: Human Capital

### 1. The existence of health and safety measures to protect labor

Intel has continued to maintain world-class safety performance. The company uses tools like Safety-Self Assessments, Wellness Programs, and SIA Health Studies to ensure the health and safety of its employees.

All Safety-Self Assessments are conducted by senior managers and they have become instrumental in Intel's ability to reduce the number and severity of worker injuries. Intel's Wellness Programs provide a variety of health benefits to employees and their families. In addition to these benefits, Intel uses the "Health for Life 3-Step Wellness Check" to inform employees of their individual health risks. Finally, Intel is consistently working with the Semiconductor Industry Association (SIA) and research teams from Vanderbilt University to study the potential health effects of working in "wafer fabrication facilities". The study, which is expected to be completed this year, is one largest epidemiological studies ever conducted (Responsibility Report, 2008).

### 2. Quality of training and development programs and resources

Intel was voted as one of *Business Week's* "best places to launch a career" in 2008. Intel provides its employees with *Management/Leadership Development Programs*, training through *Intel University* and *Tuition Assistance Programs* for employees who complete career-oriented degree programs or certifications.

In 2008, Intel invested over \$300 million employee training and development through its Intel University programs. Training at Intel University includes both instructor-led training as well as e-learning courses. With roughly 85,000 employees, the \$314 million investment translated to an investment of \$3,700 per employee and 37.3 hours of training per employee (Responsibility Report, 2008).

Additionally, Intel invests millions of dollars annually into its Tuition Assistance Program. In 2008, just over 4% of eligible Intel employees completed higher education degrees and programs at a total cost of \$14.8 million (Responsibility Report, 2008).

### 3. Quality of retention and motivation

Intel provides its employees, the company also uses an "Employee Recognition" program to motivate and retain employees.

Intel's Employee Recognition program covers everything from personal "thank-yous" to large banquets. Intel's company-wide awards include the Intel Quality Award, the Intel Achievement

Award, the Division Recognition Award, and the Spontaneous Recognition Award. Some employees will also receive company stock as part of their reward.

Intel motivates and retains its employees through bonus cash and equity compensation, health benefits, and retirement (401k) benefits. Equity programs include stock option plans and restricted stock plans as well as discounted stock purchase plans. Retirement benefits include 401k savings plans, profit sharing, and post-retirement medical benefits (Responsibility Report, 2008).

All of these tangible benefits, along with employee recognition and the overall workplace have allowed Intel to maintain an industry leading retention rate.

#### 4. Flexible workforce practice leading to high productivity

Intel supports a variety of work options that allow employees to manage their workload and personal responsibilities. Intel's flexible work options include the following:

- 1) Compressed work weeks
- 2) Part-time schedules
- 3) Job-sharing
- 4) Flex time
- 5) Compensatory time off
- 6) Telecommuting

These flexible work schedules are negotiated on an individual basis between employee and manager. Intel estimates that roughly 25% of employees work a compressed work week and over 70% of employees use telecommunication on regular or temporary basis.

Intel also offers a child and elderly care program to meet the specific needs of its employees (Responsibility Report, 2008).

#### 5. Quality of labors relation and access to management

Intel's "open-door philosophy" gives its employees access to all levels of management to discuss and address work-related issues.

On a semi-annual basis, Intel uses its *Manager and Leader Feedback Survey* to gage how well an employee's manager is "communicating, motivating, and developing his or her team". Upon completion of the survey, most managers will discuss the survey results with their team.

Every other year, Intel conducts its *Organization Health Survey* (OHS). The OHS is intended to learn what employees think about the workplace. The OHS helps to identify strengths while simultaneously pointing out areas of the business that need to be improved.

Other examples of employee interaction with upper level management are listed below:

- A 40<sup>th</sup> anniversary intranet site where employees shared their personal stories of Intel and photos of volunteer events, and played a trivia game based on Intel's history
- Dozens of small group sessions that brought employees and senior leaders together to talk about pressing issue

### Criteria #3: Corporate Governance

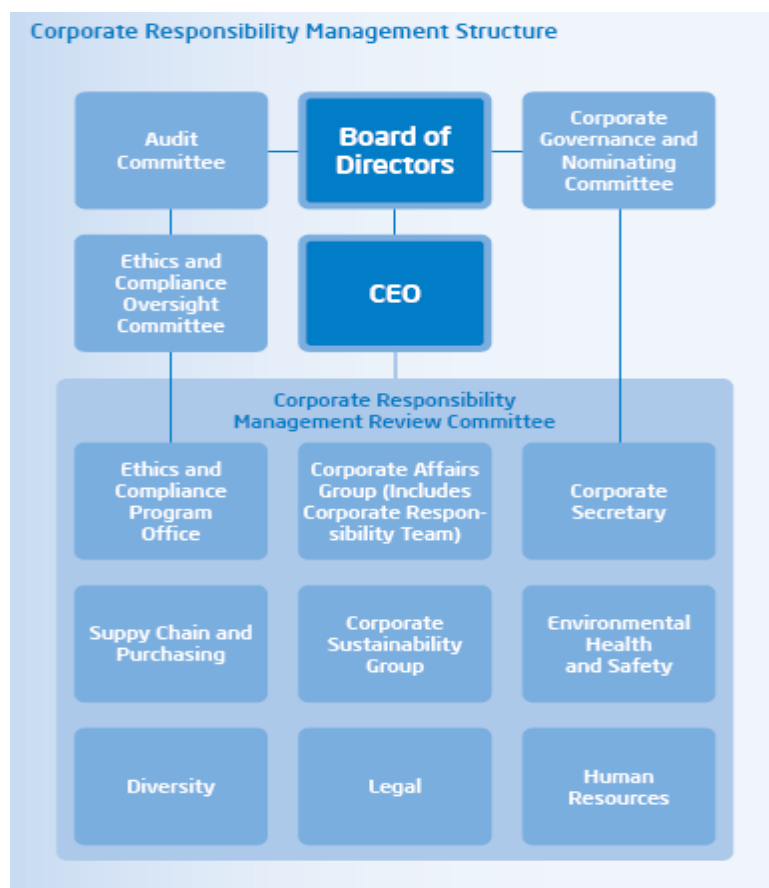
1. The existence of executive and board-level level of responsibility and oversight for sustainability issues

The table below shows Intel's "Corporate Responsibility Management Structure". The Corporate Responsibility Management Review Committee is broken into nine different teams; each team is responsible for addressing issues within their department (i.e. Environment, Legal, etc). Intel explains that each of these groups bring together key employees to address company-wide issues.

In 2008, Intel created the Corporate Social Responsibility group. This group "brings together representatives from key groups across Intel...to develop clear and consistent strategies for improving [our] environmental performance."

Many of these teams are led by upper-level management and executives.

Table 2: Corporate Responsibility Management Structure



Source: 2008 Corporate Responsibility Report

## 2. The ability to integrate sustainability aspects into the firm's strategy

Intel fully incorporates sustainability challenges and opportunities into the company's overall strategy. Specifically, Intel's Corporate Responsibility Report points to the areas of *Climate Change, Water Use, Education Quality and Digital Divide, and Labor Standards and Supply Chain Responsibility*.

- *Climate Change*: continuing to work toward lowering emissions by 2012; using climate change as an opportunity to develop additional, climate-friendly Intel technologies
- *Water Use*: continuing to develop “innovative water conservation solutions”; very difficult to achieve but company has created an internal team charged with tackling these issues
- *Education Quality and Digital Divide*: company recognizes its own health depends on young people have access to education; Intel helps to increase education by making more advanced technologies available to children
- *Labor Standards and Supply Chain Responsibility*: continues to improve conditions for both manufacturers and suppliers by staying involved with Electronic Industry Citizenship Coalition

(Intel Corp. Responsibility, 2010)

## 3. The ability to adapt to changes in competitive environment

While Intel is clearly the industry leader in many of the product segments in which it operates, the company continues to adjust to the competitive environment by employing tactics to stay ahead of the learning curve.

One strategy Intel utilizes to sustain its role as leader in the technology industry is its *tick-tock strategy*. Through the *tick-tock strategy*, Intel introduces a new silicon process technology every two years and “revamps” the next generation of microarchitecture in the intervening years. The *tick-tock strategy* has been very successful as many large revenue generators have been created through this program (Intel Corp. Responsibility, 2010).

The *tick-tock strategy* is just one way Intel adapts to changes in the competitive environment. In addition to constantly introducing new products into the market, Intel performs wide-spread analysis on competitors in specific product segments as well as in-depth analysis on the technology industry as a whole. These strategies – and Intel's ability to adapt - have allowed Intel to continue to be one of the most successful technology companies in the world.

#### 4. Mechanisms for monitoring and evaluating toward sustainability performance

Intel uses the aforementioned groups and committees to monitor its sustainability performance and initiatives. Each group is responsible for setting team performance goals and regularly monitoring and reporting the extent to which these goals have been achieved.

As discussed earlier in the “Criteria #1: Environment” section, Intel lays out a series of sustainability performance goals for a particular committee. For example, one of Intel’s environmental sustainability goals was to “Reduce water use per chip below 2007 levels by 2012”. Goals, like this one, are evaluated on a year to year basis. Intel discloses how close the company is to achieving its goals and - if necessary - what changes will be implemented to ensure the goals are completed on schedule (SEC, 2010).

Data directly related to performance goals is broken down for further analysis. For example, information regarding water use per chip will be broken by country, region, and facility. Information broken down to this level helps Intel managers to identify the areas that are underperforming and subsequently allows the manager to make any appropriate changes.

#### 5. The ability to deliver sustainability products and/or services

Intel prides itself on its ability to deliver products to customers that have a “Responsible Product Design”. Intel strives to minimize the company’s environmental impact in all stages of product’s life cycle.

Intel deliver’s socially responsible and sustainable products in the following ways:

- *Lead-Free/RoHS*: new processors and chipsets are manufactured using lead-free processes; continues to work with EU and Chinese officials to remain compliant with RoHS regulations
- *Removing Halogens*: legislation does not require the elimination of HFRs and PVC from products, but Intel has proactively taken steps to eliminate the use of these materials
- *Innovations in Product Packaging and the Logistics Supply Chain*: eliminating “overpacks” used saves hundreds of tons of paper annually; removing excess material on transport media has reduced plastic waste by over 300 tons annually
- *EPEAT (Electronic Product Environment Assessment Tool)*: leading participant in EPEAT system; EPEAT promotes “clear and consistent criteria for product evaluation”, and creates market incentives for the production and use of environmentally friendly products

(Responsibility Report, 2008)

#### **Criteria #4: Stakeholders**

1. *The existence and quality of relationships with regulatory body and local communities*

See *Table 3* below.

2. *The level of investment and development in local communities in which the firm operate in developing markets*

Before expanding an existing Intel campus or building a new campus altogether, Intel assesses the needs of the local community. Intel assesses the level of impact or expansion in three stages: *Entering, Operating, and Exiting*.

After assessment, the Corporate Affairs group gives the company an “on-the-ground” presence that allows Intel to better understand the needs of local communities. This presence is especially vital when moving into developing countries.

For example, when Intel decided to build an assembly facility in Vietnam the company’s needs assessment resulted in the creation of local programs focused on construction and road safety. Intel also invested heavily in education programs as well as community recycling programs. The construction of the Vietnam facility and the development of these programs were a direct result of Intel’s ability to assess the needs of the local community and work collaboratively with community leaders (Intel Corp. Responsibility, 2010).

3. *Responsiveness to shareholder issues*

See *Table 3* below.

Table 3: Stakeholder Engagement

The table below was taken from Intel's 2008 Corporate Responsibility Report. The table lists seven different groups of stakeholders, some of the tools and processes used to cater to those stakeholders, and the benefits and results of these processes.

Stakeholder Engagement		
Stakeholders	Tools and Processes	Benefits and Results
<b>Employees</b>		
	Open-door policy designed to give employees access to management at all levels.	Multiple processes support direct communication up and down the organization. OHS results allow us to track our performance in key areas and identify gaps on a regular cadence. For more detail, see the <a href="#">Workplace</a> section of this report.
	Employee surveys, including our Organizational Health Survey (OHS).	
	<a href="#">Circuit News</a> , our daily intranet "newspaper," which includes direct feedback mechanisms.	
	Quarterly Business Update Meetings for all employees, and Executive Open Forums and webcasts that include Q&A sessions.	
<b>Customers</b>		
	Customer Excellence Program (CEP), a structured program that uses a web-based survey administered by a third-party market research firm to obtain and prioritize customer feedback on the quality of Intel's products and services. A portion of Intel employees' annual variable compensation is tied to CEP results.	Objective customer feedback enables us to identify areas for improvement. In 2008, employees received two additional days of pay based on the high customer satisfaction levels under the CEP. For more information, refer to the <a href="#">Intel Quality System Handbook</a> .
	<a href="#">Consumer Support</a> web site.	
	External blogs, such as <a href="#">Technology@Intel</a> , that discuss information of interest to customers.	
<b>Suppliers</b>		
	<a href="#">Intel's Supplier Site</a> .	Setting consistent expectations for our suppliers reduces risk and improves efficiency across our supply chain. In this year's report, based on stakeholder feedback and benchmarking research with other companies in the EICC, we have provided additional detail in the <a href="#">Supply Chain</a> section.
	Intel Supplier Day conference and country-specific supplier days, which bring together hundreds of our top suppliers for training.	
	Active participation in the Electronic Industry Citizenship Coalition (EICC).	
<b>Communities</b>		
	Community advisory panels and working groups, two-way forums where community members and Intel representatives collaborate to address community issues and concerns.	Maintaining an open dialogue with our communities has allowed us to build positive and constructive relationships at the local level. For more detail on how we use stakeholder feedback to assess and manage our community impacts, see the <a href="#">Community</a> section of this report.
	Community perception surveys and needs assessments.	
	<a href="#">Intel Community</a> web site, which includes feedback mechanisms.	
	Placement of Intel employees on local nonprofit boards and commissions.	
	Extensive working relationships with educators and educational institutions worldwide, and third-party evaluations of our education programs.	

Source: 2008 Corporate Responsibility Report



Table 3: Stakeholder Engagement (Cont.)

Stakeholder Engagement (continued)		
Stakeholders	Tools and Processes	Benefits and Results
<b>Investors</b>		
	Regular face-to-face meetings with social responsibility-oriented fund managers and analysts.	Feedback and benchmark data drive improved performance and help us identify emerging issues and concerns. In direct response to feedback received from these groups in 2008, we developed a set of <a href="#">Human Rights Principles</a> , expanded our disclosure on water conservation and usage in this year's Corporate Responsibility Report, incorporated information on climate change risk into our SEC filings, and adopted an advisory vote for our stockholders on executive compensation.
	Timely interaction with investors and research firms through e-mail exchanges, conference calls, and detailed investor surveys.	
	Online stockholder forum, launched in early 2009, featuring investor surveys on a range of issues, including questions on corporate responsibility.	
	Intel Corporate Responsibility <a href="#">e-mail account</a> and <a href="#">CSR@Intel blog</a> .	
<b>Governments and Policy Makers</b>		
	Active engagement in policy and legislative efforts worldwide through individual discussions and exchanges with joint industry and government committees.	Our efforts in policy development foster credible, trustworthy relationships; strengthen regard for Intel as a valued corporate citizen; and create a supportive public policy environment. For more information, visit our <a href="#">Public Policy</a> web site.
	Intel Global Public Policy and Intel Corporate Affairs working with policy makers.	
	New <a href="#">Policy@Intel</a> web site and blog.	
<b>Non-Governmental Organizations (NGOs)</b>		
	Issues meetings, formal dialogues and projects, and multi-sector efforts.	Our interactions with NGOs promote mutual understanding on environmental issues, regional education priorities, technology options and solutions for developing countries, supply chain management issues, and other topics. Details on our collaborations with NGOs in our main corporate responsibility focus areas are covered in other sections of this report.

Source: 2008 Corporate Responsibility Report

The chart below reconciles Intel’s sustainability practices with those outlined in Mr. Long Diep’s *Sustainability Investment* thesis.

Table 4: Summary Chart

Area	Criteria	Prevalent?	Example
<b>Environment</b>	Environmental performance and targets	Yes	See 2012 Environmental Goals.
	Risk managements	Yes	Intel EHS Organization
	Energy Efficiency	Yes	“Wet scrubber” technology
<b>Human Capital</b>	The existence of health and safety measures to protect labor	Yes	“Health for Life 3-Step Wellness Check”
	Quality of training and development programs and resources	Yes	Intel University; Tuition assistance
	Quality of retention and motivation	Yes	Employee recognition programs; Stock programs
	Flexible workforce practice leading to high productivity	Yes	Telecommunication, Flex time, Job-sharing programs
	Quality of labors relation and access to management	Yes	Manager and Leader Feedback Survey; Banquets and intranet meetings

Table 4: Summary Chart (Cont.)

<b>Corporation Governance</b>	The existence of executive and board-level level of responsibility and oversight for sustainability issues	<b>Yes</b>	Corporate Responsibility Management Review Committee
	The ability to integrate sustainability aspects into firm's strategy	<b>Yes</b>	Technology donations to schools and programs for young people
	The ability to adapt changes in competitive environment	<b>Yes</b>	"Tick-tock" method
	Mechanisms for monitoring and evaluating toward sustainability performance	<b>Yes</b>	Separate sustainability committees; in-depth analysis of performance areas
	The ability to deliver sustainability product and/or services	<b>Yes</b>	"Responsible Product Design" Program
<b>Stakeholders</b>	The existence and quality of relationships with regulatory body and local communities	<b>Yes</b>	"Intel Community" web page
	The level of investment and development in local communities in which the firm operate in developing markets	<b>Yes</b>	Placement of Intel employees on nonprofit boards and commission
	Responsiveness to shareholder issues	<b>Yes</b>	Face-to-face interaction; online forums

### *III. Added Value of INTC Factoring In Sustainable Practices*

Intel Corporation has achieved unprecedented levels with regard to both corporate social responsibility and sustainability. As discussed above, it has met and even succeeded many of the criteria that we have established for sustainable companies. While these practices are both time consuming and come at some cost to Intel, CEO Paul Otellini maintains that these practices are essential to the company's widespread success.

In a letter to shareholders, Mr. Otellini explains that "making corporate responsibility an integral part of Intel's strategy helps [Intel] mitigate risk, build strong relationships with our stakeholders, and expand our market opportunities." Mr. Otellini goes on to list Intel's achievements in the following areas:

- Now largest purchaser of green power in U.S. according to EPA
- Continue to reduce fresh-water use by 3 billion gallons annually
- Trained over 6 million teachers worldwide through Intel Teach Program
- Employees performed over 1.3 million hours of community service to over 5,000 schools and nonprofit organizations over the past year

(Responsibility Report, 2008)

In 2009, Intel continues to be rewarded and recognized for its commitment to sustainability. Some of the awards and their descriptions are listed below:

- Ranked #4 on *Newsweek's* Green Rankings - ranks environmental performance of 500 largest U.S. companies
- Dow Jones Sustainability Indexes Member for 11<sup>th</sup> consecutive year, earning top spot in the semiconductor sector
- Named for the fifth year in a row to the "100 Most Sustainable Corporations in the World" by Corporate Knights and Innovest
- Named "Green Partner of the Year" by the EPA

(Intel Corp. Responsibility, 2010)

From a value standpoint, these achievements undoubtedly add value to Intel Corp. as both a member of the community and as a multi-national corporation.

For example, Intel's expansion into Bangalore, India was an enormous investment on all levels. Intel's ability to produce sustainable products and form strong, local relationships has allowed the company to establish itself as a market leader in Asia. Intel India contributes significantly to a number of Intel's products especially in the enterprise and mobility departments. Intel has used product developments and creations from these departments on a global scale. Intel India is

responsible for 750 IDFs and has filed about 50 patents to date (Intel Corp. Responsibility, 2010).

Intel's investments to date in India have reached over \$1.7 billion. Intel's 2009 revenues in the Asia-Pacific region, however, were \$19.3 billion, up 2% from 2008 (SEC, 2010). Intel India also provides over 3,000 jobs in areas of *Software and Hardware Design & Development, Sales & Marketing, Venture Capital, CSR, and Education*. In 2006, Intel launched its *World Ahead Program* (Intel Corp. Responsibility, 2010).

As Intel continues to use its sustainable practices to expand into new areas and create more efficient products, the company continues to add to its own value. As CEO Paul Otellini alluded to, these practices help the company to lower risk, build relationships with different stakeholders, and expand market share – all three of which help the profitability and growth of a company.

Additionally, Intel's investment in countries like China, India, Costa Rica, and Israel provides thousands of people with jobs and steady income. Programs, like the *World Ahead Program*, provide these communities with opportunities for higher education and a better way of life.

#### ***IV. Summary of Benefits***

##### 1) Mitigation of Risk

- a. Sustainable practices help the company to diversify its product portfolio while meeting the regulations of government and non-government agencies
- b. Decreases risk of fines or government penalties

##### 2) Build & Strengthen Relationships

- a. Strategic and sustainable planning for movement into new areas allows the company to build new relationships
- b. Investments in local communities help company to improve its existing relationships
- c. Strength and number of relationships are vital to company's product development and research efforts

##### 3) Increased Market Share

- a. Investments in new areas extends the reach of Intel's products
- b. Products produced on a global scale can be delivered to local customers and manufacturers at a lower cost

##### 4) Improved Brand Name

- a. Recognition and awards from media, government, and non-government agencies improve company's brand image
- b. Strong brand image appeals to customers and business partners

## Bibliography

- 2008 Corporate Responsibility Report*. Rep. Santa Clara, CA: Intel Corporation, 2008.  
[http://download.intel.com/intel/cr/gcr/pdf/Intel\\_CSR\\_Report\\_2008.pdf](http://download.intel.com/intel/cr/gcr/pdf/Intel_CSR_Report_2008.pdf)
- Carroll, Archie B. "A Three-Dimensional Conceptual Model of Corporate Performance." *Academy of Management Review* 4.4 (1979): p. 500.
- Friedman, Milton. "The Social Responsibility of Business Is to Increase Its Profits." *The New York Times Magazine* 13 Sept. 1970.
- Intel Corporate Responsibility*. Intel Corporation, 2010. Web. 23 Apr. 2010.  
[http://www.intel.com/intel/corporate\\_responsibility/index.htm?iid=about\\_intel+tm\\_learnmore](http://www.intel.com/intel/corporate_responsibility/index.htm?iid=about_intel+tm_learnmore).
- Johnson, Harold. "Business in Contemporary Society: Framework and Issues." *Belmont Wadsworth Publishing Company* (1971).
- Lea, Ruth. "Corporate Social Responsibility: IoD Member Opinion Survey." *The Institute of Directors, UK* November (2002): 10.
- McComb, Michael. "Profit to Be Found in Companies That Care." *South China Morning Post* 15 Apr. 2002: 5. Print.
- Portney, Paul. 2005. "Corporate Social Responsibility: An Economic and Public Policy Perspective". Environmental Protection and the Social Responsibility of Firms. Brace Hay, Robert Stavins, and Richard Vietor, editors. Resources for the Future: Washington, D.C.
- United States. United States Securities and Exchange Commission. *Intel Corporation 10-K Form*. Intel Corporation, 22 Feb. 2010. Web. 17 Apr. 2010.  
<http://www.sec.gov/Archives/edgar/data/50863/000095012310015237/f54119e10vk.htm#300>.

## Index A: DCF Analysis

### Pro Forma Income Statement

Company Name Intel Corp.  
 Ticker Symbol INTC  
 Pro Forma Income statement  
 (In Millions of USD)

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2014	2015	2016
<b>Revenue</b>	36,334	37,586	35,127	35,830	36,546	37,643	39,148	41,106	43,161	45,319	47,585	50,916	54,480
<b>Revenue Growth</b>		-1.95%	-6.54%	2.00%	2.00%	3.00%	4.00%	5.00%	5.00%	5.00%	5.00%	7.00%	7.00%
Less: COGS	18,430	16,742	15,566	15,877	16,195	16,681	17,348	18,215	19,126	20,082	21,087	22,563	24,142
<b>Gross Profit</b>	19,904	20,844	19,561	19,952	20,351	20,962	21,800	22,890	24,035	25,237	26,498	28,353	30,338
<b>Gross Margin</b>	51.92%	55.46%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%	55.69%
Less: All Operating Expenses	11,688	11,890	13,850	13,503	13,773	14,186	14,754	15,080	15,834	16,626	16,981	18,170	19,442
Less: Other expenses													
Less: Other expenses													
<b>Operating Income (EBIT)</b>	8,216	8,954	5,711	6,449	6,578	6,776	7,047	7,810	8,201	8,611	9,517	10,183	10,896
<b>Operating Margin</b>	21.43%	23.82%	16.26%	18.00%	18.00%	18.00%	18.00%	19.00%	19.00%	19.00%	20.00%	20.00%	20.00%
Add: Interest Income (+ \$)	3	(1,380)	(147)										
Less: Interest Expense (- \$)	(154)	376	23										
+/-: Other	(793)	(488)	163										
<b>EBT</b>	9,166	7,686	5,704	6,449	6,578	6,776	7,047	7,810	8,201	8,611	9,517	10,183	10,896
Less Taxes	2,190	2,394	1,335	1,935	1,973	2,033	2,114	2,343	2,460	2,583	2,855	3,055	3,269
Tax Rate	24%	31%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%
<b>Income before Extraordinary Items</b>	6,976	5,292	4,369	4,515	4,605	4,743	4,933	5,467	5,740	6,027	6,662	7,128	7,627
+/-: Extraordinary Items													
<b>Net Income</b>	6,976	5,292	4,369	4,515	4,605	4,743	4,933	5,467	5,740	6,027	6,662	7,128	7,627
EBITDA	12,220	10,910	7,000	7,816	8,027	8,311	8,674	9,535	10,029	10,549	11,571	12,361	13,204
<b>EBITDA Margin</b>	31.88%	29.03%	19.93%	21.81%	21.96%	22.08%	22.16%	23.20%	23.24%	23.28%	24.32%	24.28%	24.24%
<b>Diluted EPS</b>	1.18	0.92	0.77	0.80	0.82	0.84	0.87	0.97	1.02	1.07	1.18	1.26	1.35
FCF/ Share	\$ 1.82	\$ 1.90	\$ 1.99	\$ 2.09	\$ 2.26	\$ 2.38	\$ 2.52	\$ 2.72	\$ 2.89	\$ 3.08	\$ 3.08	\$ 3.17	\$ 3.17
Ending Shares	5,936	5,748	5,645	5,645	5,645	5,645	5,645	5,645	5,645	5,645	5,645	5,645	5,645
<b>Common Sized Expenses</b>	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2014	2015	2016
Revenue	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
COGS	48.08%	44.54%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%	44.31%
Operating Expenses	30.5%	31.6%	39.4%	37.7%	37.7%	37.7%	37.7%	36.7%	36.7%	36.7%	35.7%	35.7%	35.7%
Depreciation & Amortization	10.45%	5.20%	3.67%	3.81%	3.96%	4.08%	4.16%	4.20%	4.24%	4.28%	4.32%	4.28%	4.24%
G&A	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Operating Expenses	30.49%	31.63%	39.43%	37.69%	37.69%	37.69%	37.69%	36.69%	36.69%	36.69%	35.69%	35.69%	35.69%
<b>Depreciation &amp; Amortization</b>	952	851	889	942	999	1,059	1,122	1,190	1,261	1,337	1,417	1,502	1,592
Stock-Based Compensation (non-cash)	3,052	1,105	400	424	449	476	505	535	567	601	638	676	716
Capital Expenditures (CAPEX)	(5,000)	(5,197)	(4,515)	(4,700)	(4,982)	(5,281)	(5,598)	(5,934)	(6,290)	(6,667)	(7,067)	(7,491)	(7,941)
<b>Net Working Capital:</b>													
+ Accounts Receivable		\$ 1,712	\$ 2,273										
+ Inventory		\$ 3,744	\$ 2,935										
- Accounts Payable		\$ (2,390)	\$ (1,883)										
= Net Working Capital		\$ 3,066	\$ 3,325										
Net Working Capital Increase			\$ 259	\$ 275	\$ 291	\$ 308	\$ 327	\$ 347	\$ 367	\$ 389	\$ 413	\$ 438	\$ 464





## Index A: DCF Analysis

### *Weighted Average Cost of Capital*

<b>Company Name Intel Corp.</b>	
<b>Ticker Symbol</b>	<b>INTC</b>
<b>WACC Computation Worksheet</b>	
<b>WACC = <math>K_e \cdot (E/D+E) + K_d \cdot (D/D+E) \cdot (1 - \text{Tax Rate})</math></b>	
WACC	= 9.82%
$K_e$	= 9.93% Cost of Equity
$K_d$	= 4.08% Cost of Debt (AT)
$E/(D+E)$	= 98.39% Market Value of Equity
$D/(D+E)$	= 1.61% Market Value of Debt
Tax Rate	= 30.00%
<b>Calculation of market value of equity</b>	
Number of shares, year ended	5,645
Current Share Price	23.99
Market value of equity, year ended (thousands of dollars)	135,424
<b>Value of debt (book value)</b>	
Short-term debt and current portion of long-term debt	172
Long-term debt	2,049
Total debt	2,221
Enterprise value = equity + debt	137,645
Equity (%)	98.39%
Debt (%)	1.61%
<b>CAPM Cost of Equity Financing Calculations</b>	
$K_s = R_f + [E(R_m) - R_f] \cdot \text{Beta}$	
$K_s$	= 9.93%
Risk premium	= 6.00%
$R_f$	= 3.63%
Beta	= 1.05
<b>Cost of Debt Financing:</b>	
Review latest 10K and 10Q to determine average cost of existing debt, or use a current market rate based on the company's credit ratings. Then tax-effect the rate to determine the after-tax cost of debt to enter in D11 above.	

### *Sensitivity Analysis*

<b>Sensitivity Analysis Matrix</b>			
	<b>Terminal Growth</b>		
<b>Discount Rate</b>	<b>3.00%</b>	<b>4.00%</b>	<b>5.00%</b>
<b>10.82%</b>	\$29.02	\$31.55	\$34.96
<b>9.82%</b>	\$33.51	\$37.18	\$42.36
<b>8.82%</b>	\$39.57	\$45.15	\$ 53.56



## Index B: Financial Tear Sheet

Overview (4/28/10):

<b>Volume:</b>	78,937,517	<b>Avg. Volume:</b>	60,664,000
<b>Day's Low:</b>	\$23.30	<b>Day's High:</b>	\$23.88
<b>52-wk Low:</b>	\$15.00	<b>52-wk High:</b>	\$24.37
<b>Previous Close:</b>	\$23.82	<b>Open Price:</b>	\$23.73
<b>Dividend:</b>	\$0.16	<b>Yield:</b>	2.70%
<b>Market Cap:</b>	129,273,400	<b>P/E (Forward):</b>	\$12.55

Valuation & Profitability (4/28/10):

<b>P/E (GAAP):</b>	30.32
<b>P/E (Pro Forma):</b>	22.10
<b>Forward P/E:</b>	12.55
<b>PEG:</b>	1.14
<b>Price-to-Book:</b>	3.1
<b>Price-to-Sales:</b>	3.75
<b>ROE:</b>	11.00%
<b>ROIC:</b>	10.56%
<b>ROA:</b>	8.67%
<b>Inventory Turnover:</b>	12.46%
<b>Asset Turnover:</b>	0.70

Key Statistics (12/31/09):

	Total*	Per Share*
<b>Revenues:</b>	\$35,127,000	\$6.22
<b>Income from Continuing Operations:</b>	\$4,369,000	\$0.77
<b>EBIT:</b>	\$5,705,000	\$1.01
<b>EBITDA</b>	\$10,994,000	\$1.95
<b>Net Income:</b>	\$4,369,000	\$0.77
<b>Cash Flow from Cont. Operations:</b>	\$11,170,000	\$1.98
<b>Free Cash Flow:</b>	\$6,655,000	\$1.18
<b>Cash:</b>	\$3,987,000	\$0.71
<b>Long-Term Debt:</b>	\$2,049,000	\$0.36
<b>Book Value:</b>	\$41,704,000	\$7.39
<b>Enterprise Value:</b>	\$127,507,405	\$22.59
<b>Market Cap</b>	\$129,473,205	\$22.90
*Figures in thousands		
**Based on most recent share count		

YTD Performance (4/28/10); Intel vs. SP500, IMB, AND



Sources: Smart Money, Google Finance



## Index B: Sustainability Tear Sheet

### Strategy & Benefits:

*Our commitment to corporate responsibility is unwavering, even during economic downturns. Taking a proactive, integrated approach to managing our impact on local communities and the environment not only benefits people and our plant but is good for our business. Making corporate responsibility an integral part of Intel's strategy helps us mitigate risk, build strong relationships with our stakeholders, and expand our market opportunities.*

-CEO Paul S. Otellini

### Prestigious Awards and Recognitions Received:

Year	Award Name	Description
2009	Newsweek's Green Rankings - #4	Ranks environmental performance of largest 500 US companies
1998-2009	Dow Jones Sustainability Index	Earned top spot for semiconductor sector
2009	100 Most Sustainable Corporations	Fifth consecutive year ranked in top 100 by Corporate Kings and Innovest
2009	Green Power Partner of the Year	Recognized by EPA for voluntary efforts in the area of climate change
2009	World's Most Ethical Companies	Recognized by Ethisphere for ethics and compliance programs
2009	Corporate Citizenship Award	Recognized by U.S. Chamber's Business Civic Leadership Center

### Intel Sustainability Divisions:

- 1) Economic Impact
- 2) Governance, Ethics & Engagement
- 3) Environment
- 4) Workplace
- 5) Supply Chain
- 6) Community
- 7) Education

### Sustainability Strategies:

- 1) Corporate Responsibility Management Structure
- 2) Energy Efficiency – “Wet scrubber” technology
- 3) Product Creation – *Tick-tock strategy*
- 4) Human Capital – *Intel U*, Tuition Assistance
- 5) Environment – Comprehensive goals set for 2012

Criteria Area	Program Name	Interesting Fact
Environment	2012 Goals and Performance Measures	Comprehensive goal list includes water use, global warming footprint, chemical waste, and energy consumption reductions
Human Capital	Intel University (IU)	Company invested \$314 million into employee training through IU; amounts to \$3,700 and 37.3 hours of training per employee
Corporate Governance	"Responsible Product Design" Program	Products are completely lead-free, devoid of halogens, and fully compliant with EPEAT
Stakeholders	Stakeholder "Tools and Processes"	Include engagement with employees, customers, suppliers, communities, investors, governments & NGOs on personal and issue specific basis. Methods include individual stakeholder websites and regular meetings with managers