

SanDisk Corp.

Recommendation	Price	Price Target	Margin of Safety
Sell	\$67.08	\$72.39	7.92%

Sector: Technology
Sub-Industry: Data Storage Devices

Summary: SanDisk designs, develops manufactures, and markets data storage solutions all around the world.

Key Stock Statistics

52-Wk Range	\$107.83 - 67.39	Most Recent Dividend	\$0.30	P/B	2.43
Beta	1.71	Dividend Yield	1.80%	ROE	11.80%
Shares Outstanding (M)	211.43	Trailing 12-Month EPS	\$3.26	S&P Credit Rating	BB+
Market Capitalization (B)	\$13.95	Trailing 12-Month P/E	20.58	Institutional Ownership	0.60

Investment Highlights

- ✓ Global leader in flash NAND memory technology
- ✓ One of the first developers and manufacturers of 3D NAND memory, leading to growth potential
- ✓ SSD memory widely popular and has room for massive development as well as the use of it in cloud, and mobile storage
- ✓ Joint venture with Toshiba, allows for collaborative R&D, and investments
- ✓ Apple uses SanDisk storage solution technology in their iPads and iPhones

Style Box

Large			
Mid			
Small			
	Value	Core	Growth

Performance



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Table of Contents

Company Overview	3
Business Strategy	4
Growth	4
Revenue of Segmentation	5
Risk Management	5
Industry Outlook	6
Macro Environment	6
Competitive Environment	7
SWOT Analysis	8
Financial Statement Analysis	9
Current Events	10
Valuation	10
Recommendation	11

Company Overview

SanDisk Corporation designs, manufactures, and markets flash memory storage products that are used in a wide variety of electronic systems. Created in 1988 SanDisk has focused their products towards data centers, computing, mobile, and consumer electronics. They are recognized worldwide for their memory based products and continue to thrive in the tech industry.

SanDisk is mainly invests their efforts in reducing cost, while increasing capacities of their products creating cutting edge technology such as 3-D memory. SanDisk is also making efforts to expand their company into other fields to get their memory products into more consumer electronics.

SanDisk focuses on creating their storage solutions for these four areas:

- **Data Center:** This includes data centers or cloud data centers. Products they create specific for data centers include Solid State Drives, PCIe and DIMM flash storage systems, software for data base centers, and very large reliable storage systems.
- **Computing Systems:** Reliability, price, and speed are all crucial for SanDisk's position in this market. This specifically includes SSD's, hard-disk drives, integrated storage devices, and niche products for extreme memory transfer speed for servers, media, and cloud operations.
- **Mobile:** mainly comprised of high performance flash storage in smartphones, tablets, or phones. Most solutions are imbedded and or integrated and primarily sold to industry producers.
- **Consumer Electronics:** Memory for any other niche product that SanDisk would like to provide storage service for. Specifically USB drives, camera memory, mp3 players and other products.

All of these products are sold not only in the US but also internationally. With all other primary product examples it allows us to see how it might play into their business strategy. More than half of their sales are outside of the US showing SanDisk's strength with diversity. SanDisk became a publicly traded on the NASDAQ in November 1995. SanDisk again focuses on creating cheap and reliable technology through product development. They also have done a great job in diversifying their income and investment distributions.



Business Strategy

Growth

As a well-known company in an already competitive and rapidly evolving technology hardware market SanDisk is expected to develop new and industry leading products to keep up with customer expectations and industry changes. Thus SanDisk making it their goal to provide these types storage products at the best price possible.

☐ Create reliable industry leading products for popular applications at a low price:

SanDisk originally met market demand with removable products like USB drives and memory imaging cards, which were sold through their retail channel and provided the majority of the company's revenue. When these products experienced a slump in growth, SanDisk shifted their focus to embedded NAND flash memory and cards for phones and tablets, satisfying the growing markets need for embedded and SSD solutions.

☐ Maintain cost leadership, efficiency and drive operational excellence:

SanDisk has invested in NAND flash manufacturing facilities in Japan with Toshiba. This deal with Toshiba also allows them to have a well know company carrying their products. This deal is also cost efficient because these facilities can be used to produce their parts, cut out middle man costs, increase production. Considering that the market for flash storage is generally price elastic it is essential that SanDisk strives to keep the cost of their products low. This allows them to also beat prices of their competitor to keep their consumers approval.

☐ Striving for balanced percent revenue from multiple markets:

As far as SanDisk's revenue is considered their diversification of where they receive revenue helps SanDisk be a more reliable company over all. They have also spent their efforts to create balanced revenue from all of their products and not only Flash memory products. manufacturing facilities in Japan with Toshiba. These facilities can be used to produce their parts, cut out middle man costs, increase production efficiency, and provide an overall better quality product to the consumer. Overall, these facilities reduce cost, increase capacities, and make new devices possible.

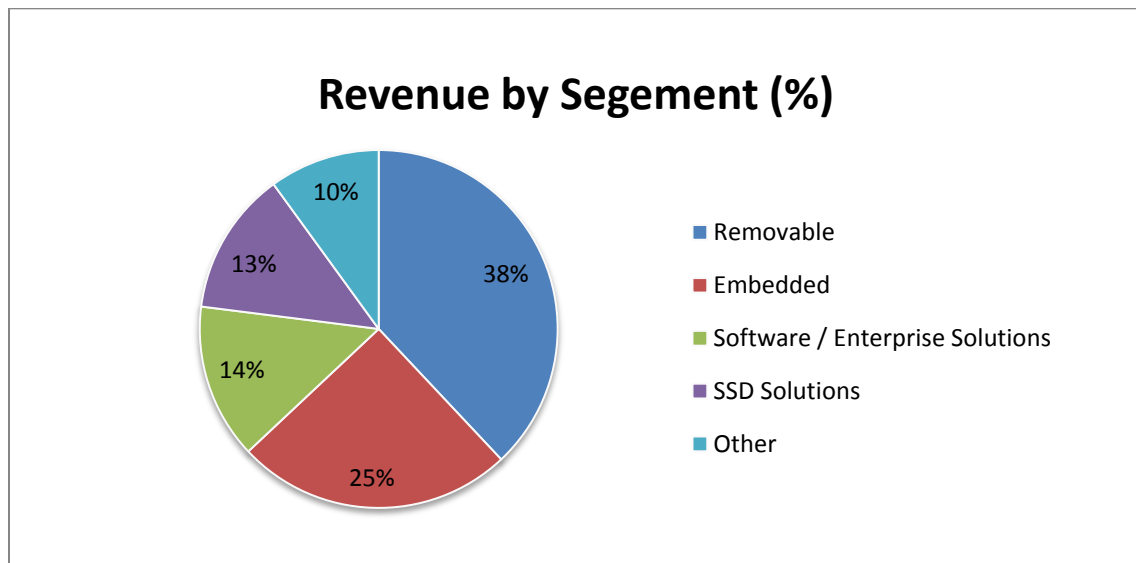
☐ Focused product development of products into other company's product lines:

SanDisk pays a lot of attention to change with the surrounding industry as well at try to specifically tailor their products for other company's popular products. SanDisk iXpand Flash Drive is specifically for the iPhone and Ipad. With this it allows SanDisk to be integrated into Apples exceptional popularity. Because of the close relationship with OEMs like Apple, SanDisk

can better tailor a product to fit the specific needs of a singular company, giving them a higher chance of product success and profitability.

Revenue by Segmentation

To really understand SanDisk and their business strategy it is important that we look at their revenue from their product segmentations. Here with these simply graphs it is easy to quickly understand SanDisk's target market. With this we can also see their strong products in comparison to their weaker product lines. Here with these graphs we can see how much of SanDisk's revenue is flash memory, embedded software, Solid State Drives, removable memory, or software/services.



It is also important to note that Solid State Drive solutions have only been very recently commercialized for general consumer purchase. And Since then SanDisk's SSD product line has taken a considerably large portion of SanDisk's revenue.

Risk Management

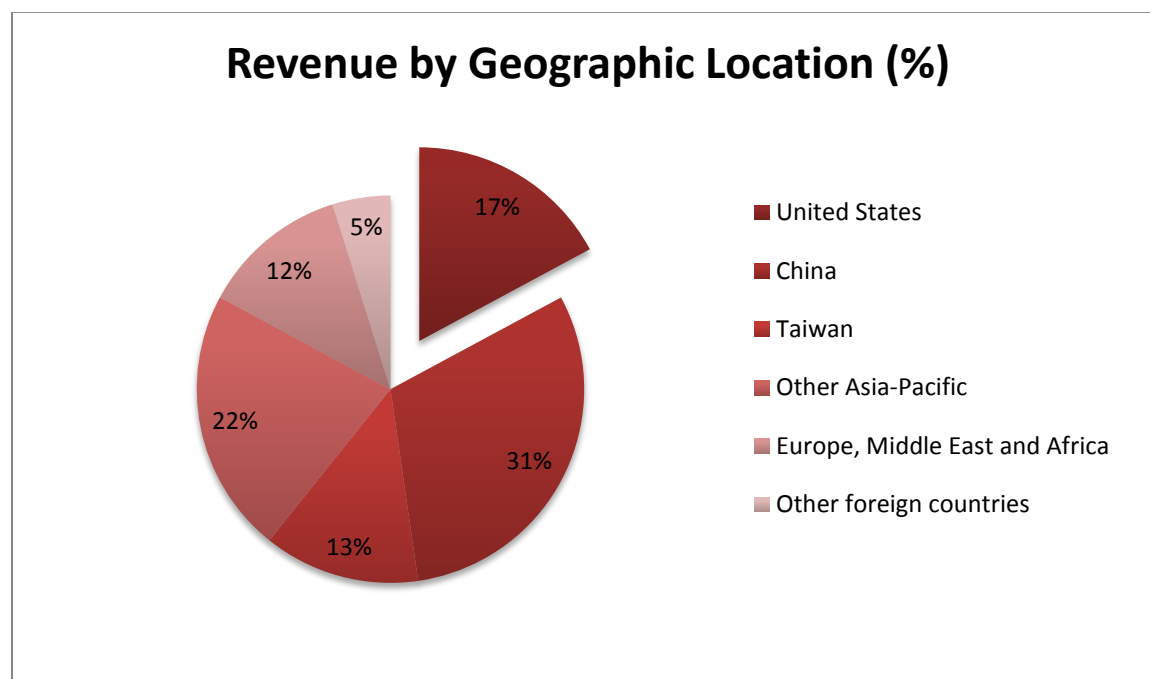
SanDisk's risk management is primarily based on them being in tune to market trends, consumer demands, technology changes, prices, and global markets. SanDisk must be able to adjust to development, demands for other industry standards, and react accordingly to market changes. This includes everything from popular demand of cloud storage all the way to embedded storage product standards and price points. However SanDisk has done a fantastic job so far with predicting industry changes and meeting consumer demands while also providing reliable products. If SanDisk can continue to forecast accurately the less risk and cost adjustment SanDisk will have to do later. This consistent and accurate forecasting has created SanDisk the market leader they are and has destroyed other competitors in this aggressively changing technology market. Preventative steps must also be put into

place to lessen the damage taken by exchange risks. To do this SanDisk has entered into forward and cross currency swap contracts, which reduce the impact of currency fluctuations on foreign assets and liabilities.

Industry Outlook

Macroeconomic Environment

Regardless of the economy the consumer technology market is a constantly changing market. To stay a solid competitor a company must be able to adapt, change, and develop fast enough to keep up with other companies and consumer demands. Besides the extreme adversity SanDisk must face as a company the American economy is slowly improving. In general, is this good news for most of all American companies. However this very same increase in the economy can also create head winds for American companies receiving revenue from these international places. A problem many large companies face in America however its effect is dependent on how much outside the US revenue SanDisk collects.



From SNDK 2014 10-k: Concentration of Risk and Segment.

The positive part is that other than sales in the U.S., China and Taiwan, no individual country represented more than 10% of the Company's revenue. Intercompany sales between geographic areas have been eliminated. However the share of international revenue to US revenue at this rate is significant enough to create a hindrance to SanDisk's profits following this next year expecting America's dollar will continue to improve.

Pricing is always expected to remain competitive in the technology sector. With all of this all considered SanDisk will definitely face some performance pressures. It is hard to predict exactly how strongly all of

these factors affect SanDisk in this upcoming year however they are important to take into consideration.

Competitive Environment

When looking at the storage technology sector SanDisk is definitely a brand name in most households. However when comparing SanDisk's financials to their competitors shows they are not the only storage technology company worth an investment. Even with relatively high barriers of entry SanDisk is still at great risk of losing its market share to its competitors if they do not keep producing and developing at the rates that they have been. Like mentioned before for a company to compete in this market they must be able to actively develop and adjust to consumer's demands. Reliability is also, naturally in the storage solutions market, paramount, and SanDisk strives to create products that are reliable and affordable.

SanDisk has also been able to grow its market share in this competitive environment by successfully developing new products, applications, and even markets. Along with these developments they are also good at announcements, and successful product introductions. Creating the name brand they are today.

SanDisk's Competitors

Seagate Technology (STX)



Seagate Technology specializes in data storage products and is very similar- therefore a big competitor to SanDisk. Seagate has a heavy emphasis on The Cloud, and offers data protection and security data storage and is developing 3D NAND technology at a commercial level.

EMC Corp. (EMC)



EMC offers data storage, information security, virtualization, analytics, cloud computing and other products and services that enable businesses to store, manage, protect, and analyze data. World's largest provider of data storage systems.

Western Digital (WDC)



One of the largest computer hard disk drive manufacturers in the world and also develops and sells a number of storage products and storage related software.

NetApp (NTAP)



NetApp™

NetApp is an American computer storage and data management company that supplies hardware and software. They differ from other competitors because they work more with data management than storage even though they have recently started selling hard disk drives.

Teradata (TDC)



THE BEST DECISION POSSIBLE™

Teradata American computer company that sells analytic data platforms, applications and related services. They focus on analytic data platforms, applications and related services. They consolidate data from different sources to make it easier to analyze.

SWOT Analysis

Strengths

SanDisk has significant expertise in the field of NAND flash memory, and holds a leadership position in producing NAND controllers and chips.

The company has increased its exposure in the high-margin, and high-growth, market for enterprise SSDs.

Currently in a joint venture with Toshiba to produce NAND flash memory. This allows the two companies to compile their investments and knowledge.

As SSD technology improve they will completely replace current hard disk drives.

Weaknesses

Price competition add together with rapid technology change reduces into SanDisk's profit margins.

Almost doubled Total current liabilities and has reduced their assets as well as had off sheet expenses rise in 2014.

Has seen significant profit margin erosion from last year.

Opportunities

Improvement of the already popular SSDs, and their price points.

Improvement of the newly blossoming cloud markets.

Introduced automotive grade NAND flash solutions designed for next-generation 'connected cars' and automotive infotainment systems.

Risks

Threat due to piracy, a lot of pirated flash drive and electronic items are produced and sold in the market at cheaper price.

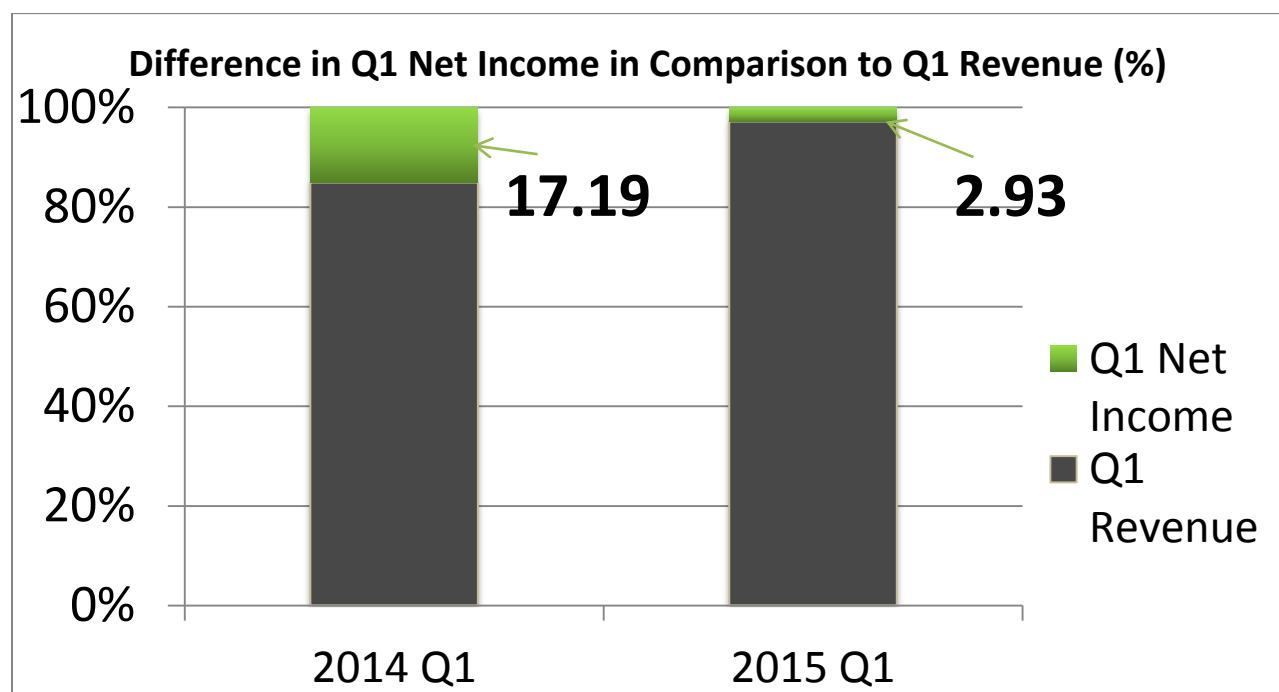
Currency exchange rates could reduce profits because of higher cost of production.

Weakness in demand in one or more of thier product categories, such as embedded products or SSDs, or adverse changes in our product or customer mix

Financial Statement Analysis

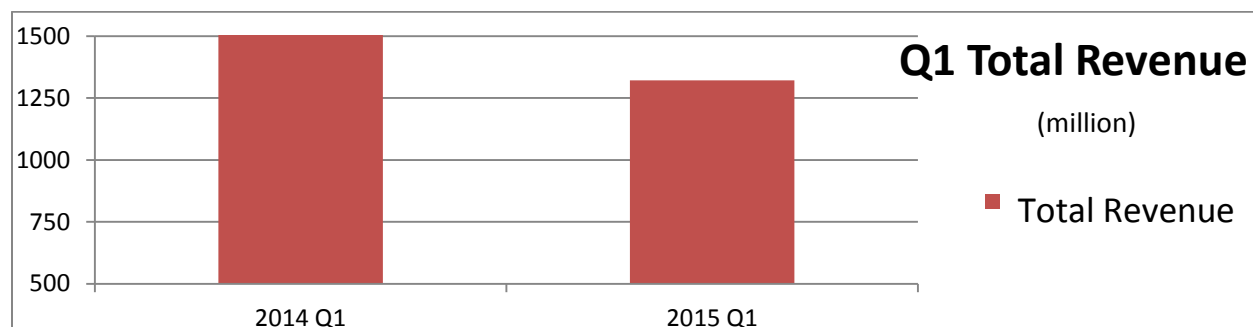
Net Income

From 2013 successful increase in income to 2014 SanDisk's profit has not improved but has decreased slightly. From 2013 to 2014 SanDisk's income has dropped from 1043M to 1003M. This change could be reflected by a lot of things however what is alarming is the change in Q1 reports from last year to this year. Last year, 2014 Q1, SanDisk reported a Net Income of 268M, a healthy amount to reach a year's end of 1043M. However this quarter for 2015 Q1 SanDisk has only reported a Net Income of 39M. A very significant change and difference since SanDisk's last Q1. There is no denying that a difference in profit margin can only be damaging for SanDisk as a whole. Below is a difference in Q1 net income from 2014 to 2015 while related to the total revenue being taken in by SanDisk.



From SNDK 2015 10-Q: Consolidated Statements of Cash Flows and Operations

This under performance is a very important and scary factor towards how SanDisk will as a company and investment stand up to this year. Resulting in 2015's Q1 to only hold a 2.93 percent net income to revenue in comparison to its last years, 2014 Q1, 17.79 percent net income to revenue. Below I will also include a graph of the total revenue from each 2014 and 2015 Q1:



Balance Sheets

So far the total assets has not changed significantly in the past five years, however the total liabilities have slowly been increasing over the past five years. Another noticeable trend is that the equity has been decreasing in the past 4 years. Stock holders total equity has also decreased by ten percent since the end of 2014 and 2015 Q1 release.

Statement of Cash Flows

Unfortunately from the representations in the net income section of this write up is it very easy to see the trend in the current cash flow. When looking at the past five years net income has seen a dip from 2010 until 2013 where it has been not been changing significantly. Overall SanDisk's net income has been seeing a negative trend over the past five years.

Current Events

- SanDisk launched a new category of “Big Data Flash” with the launch of the InfiniFlash™ System, a next generation storage platform offering flash at massive scale and at a breakthrough cost metric for the customer.
- SanDisk announced its 48-layer, second-generation 3D NAND planned for use in a broad range of solutions from removable products to enterprise SSDs.
- SanDisk introduced the 200GB* SanDisk Ultra® microSDXC™ UHS-I card, the world's highest capacity microSD™ card for use in mobile devices.
- SanDisk introduced a suite of robust, automotive grade NAND flash solutions designed for next-generation ‘connected cars’ and automotive infotainment systems.

Valuation

Cost of Capital

The cost of capital, 12.23% was found using the capital to asset pricing model. Beta used to calculate this was 1.71, which came from matching up monthly average close to the monthly average close of the S&P 500. I chose this over the daily or weekly beta, because this beta value was in between the low beta value of the daily beta and the higher value of weekly beta. The cost of debt used came from one of SanDisk's close competitors, because SanDisk doesn't provide cost of debt. The cost of debt used was 0.01%.

Discounted Cash Flow Model

For the DCF I used a three stage growth model. I when calculated I have the stage 1 a growth rate of 12% by taking the year over year mean. I took the mean over median because I believe that it better represents the large double digit changes in their net income. For the second and third stage of net sales growth rates I left them at my first predicted 9% because I have no clue at all what will happen after this first year. After seeing this quarter's first net income and how their profits have decreased I cannot predict anything positive. However because SanDisk is such a commercially popular name brand and because they have a venture and

deal with apple I can not necessarily predict a decrease in growth rates for the next three to five years. I weighted this at 35%.

Relative Valuation Model

For the relative valuation model, I used the competitors listed: Seagate Technology EMC Corporation, Western Digital, NetApp, and Teradata. I then assigned weights for each company based on market cap, price to earnings, price to sales, price to book and their price to earnings growth. Their main products were also considered when deciding weights.

This gave me an intrinsic value of \$72.02 which I believe make a fair evaluation of being undervalued by 7.71%. This is fair because SanDisk is a good company that has performed consistently well. Even though the first quarter looks grim for SanDisk an evaluation of 7.71% is only fair because of their history. For the spread sheets this is a very undervalued forecast however when taking into consideration the current macroeconomics evolved and the first quarter I believe this is still overvalued. I weighted this more because I believe that SanDisk has very strong competitors and with the fact that this low evaluation might be the closest to the true evaluation for SanDisk's stock price. I weighted this at a 40%.

Historical Valuation Model

The historical valuation model used FY 2014 EPS of \$6.29. This gave me an intrinsic value of \$90.65. After looking at the whole entire picture I believe that this was a too high of an evaluation. I believe this evaluation was forecasted too high because of how successful the 2013 - 2014 year was. Even after trying different approaches to calculating the EPS the EPS still was found to be fairly high. The estimated net income for 2015 I believe was overvalued because of last year's success. This also taken in consideration with the current macroeconomic situation and the strengthening of the dollar is why I gave it a slightly decreased percentage. These values still throw off the calculations and the discounted value. I don't feel that one fiscal year is indicative of the performance of SanDisk in the next year. I weighted this at 30%.

Recommendation

I recommend a strong **SELL** or **HOLD** until a later date and sell. This is because I don't see a very strong next year for SanDisk's company as a whole. Since 2013 to 2014 there has not been many changes other than slight income decreases, slight liability increase, and a decrease in equity. On the other hand, the income has not really changed much for the past three years. However when comparing the net income of Q1 of 2013 and previous years to the Q1 net income of 2015 we can see an alarming decrease in net income to total revenue. Of course we cannot how the whole entire 2015 year will play out however this is a not a good start at all for SanDisk. This also paired with the strengthening of the dollar, and how it might decrease to the return on SanDisk's international deals and investments, are discouraging