

Amd analysis 13934

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Advanced Micro Devices How It Stands In The Market

Advanced Micro Devices (AMD) is a global supplier of integrated circuits for the personal and networked computer, communications markets, and an employer of over 13, 000 employees. AMD produces variety of products, such as, microprocessor chips, flash memories, programmable logic devices, embedded chips, nonvolatile memories, and products for communications and networking applications. AMD is most noted for its development of super-fast and economically priced microprocessor chips, for which it ranks #2 in the world behind Intel. At AMD's current rate of financial and market growth, along with its ability to develop the world's fastest and most reliable chips, the company is well on its way to overthrow the industry giant, Intel. In this analysis of AMD, we are going to take a look at its history from a small company to becoming the industry leader that it is today, its competition with archrival Intel, why the stock took a beating after better than expected earnings, and its outlook for the corporation's future.

History of Advanced Micro Devices The Dawning of An Industry Giant

On 1 May 1969, Jerry Sanders and seven others had been toiling for months to pull together their scrappy start-up. The year before, Jerry had left his job as director of worldwide marketing at Fairchild Semiconductor, and he now found himself heading a team committed to a well-defined mission of building the best semiconductor company to the manufacturers of electronic equipment in the computation, communication and instrumentation markets. The company was small and financially insufficient that Mr. Sanders and the rest of the team held the company headquarters the living room of John

Carey, one of the co-founders, before it would soon move into two rooms in the back of a rug cutting company in Santa Clara. By September, AMD had raised the money it needed to begin manufacturing products and moved into its first permanent home in Sunnyvale, California. During the company's first years, the vast majority of its products were alternate-source devices, products obtained from other companies that were then redesigned for greater speed and efficiency. To give the products even more of a selling edge, the company instituted a guarantee of quality unprecedented in the industry. All products would be made and tested to stringent MIL-STD-883, regardless of who the customer was and at no extra cost. After five years of hard work, there were nearly 1,500 employees making over 200 different products generating around \$26.5 million in annual sales. AMD would soon become an industry leader in investment into research and development. By the end of fiscal year 1981, the company had more than doubled its sales over 1979. Plants and facilities expanded all the way across to Texas. New production facilities were built in San Antonio, and more was added in Austin as well. AMD had quickly become a major contender in the world semiconductor marketplace. AMD celebrated its 15th year with one of the best sales years in company history. In the months following AMD's anniversary, employees received record-setting profit sharing checks and celebrated Christmas with musical group Chicago in San Francisco and Joe King Carrasco and the Crowns in Texas. By 1986, however, the tides of change had swept the industry. Japanese semiconductor makers came to dominate the memory markets, up until now a foundation for AMD, and a fierce downturn had taken hold of the computer market, limiting demand for

chips in general. AMD, along with the rest of the semiconductor industry, began looking for new ways to compete in an increasingly difficult environment. In 1989, Mr. Sanders was discussing about changing the entire company to compete in new markets. AMD would embark on building its sub micron capability with the Sub micron Development Center. Mr. Sanders incorporated a new market strategy by developing microprocessors compatible with IBM computers, networking and communication chips, programmable logic devices, and high-performance memories. AMD has now become either the #1 or #2 player in the markets that it serves worldwide as a result of incorporating this new market strategy.

AMD Today

AMD is currently ranked #2 in the world, right behind Intel, in microprocessor chip sales. The performance of the stock (See table 1) has been phenomenal over the past year until recent months after the stock split. AMD went from lows of \$17 a share to record highs of \$99 within a six-month period. This stock surge was due to AMD's development of the Athlon processor, which would soon lead to the fall of industry giant, Intel. PC Magazine and microprocessor experts recognized the Athlon chip as the Fastest and far more superior chip in the market today. For the nine months ended in 1 October 2000, revenues rose 84% to \$3.47 billion. Net income totaled \$828 million vs. a loss of \$154 million a year ago. Revenue increases are due to higher sales of seventh generation microprocessors and sale of flash memory devices. Higher margins, lower R&D expenses, and the absence of \$32 million in restructuring charges reflect the increase in net income.

Competition How AMD Compares With Intel

A couple of years ago when Advanced Micro Devices introduced its K5 microprocessor, the phrase too little, too late was plastered across their name countless times. At that time, if anyone were to name an underdog to the Intel dominated microprocessor market, Cyrix with his or her dirt-cheap 5x86 processor would have been the favorite.

Intel had been the only processor that could handle day-to-day functions at reasonable speeds. Such simple tasks as word processing and calculations, then later gaming and educational work, the processors were unable to perform. When the Pentium processor was introduced in 1994, no company could compete with Intel at this point. It took until 1997, for AMD to even be noticed, and then later in 1997 the AMD k6 series was introduced.

When AMD's k6 was introduced to compete with the Pentium II Processor, it fell short in all areas, except for price. It was the most economic micro-processing chip on the market. The downside to this chip is that it did not follow the same format as Intel chips. It needed a different motherboard, a socket-7 motherboard. This hurt AMD's chances at the beginning, but in early 1998 they unveiled their new K6-2 processor. The K6-2 Processor was faster, better, and cheaper. The processor ran on a 100mhz bus, while Intel's chips still ran on only a 66mhz bus, this made AMD's chip much faster. It also was nearly 16% cheaper than any Intel based Pentium II computer.

The gaming community accepted the k6-2 with cautious, yet open, arms. With the new SIMD-Enhanced (Single Instruction Multiple Data) 3DNow! the

graphics this processor were able to produce were amazing, for the time, due to the use of floating point intensive programs. With the new processor and their own design they were not only keeping up with the giant Intel, but they were innovating.

Intel answered back with its SSE , which was to be included in its Pentium III processors. This new enhancement was to push graphics acceleration twice as fast as AMD s 3Dnow could. When Intel prematurely released the Pentium III processor it fell short. Many people got chances to take the new P3 for a run, and they were barely faster than the similarly clocked AMD K6-2 s. Not only that, but they sold for over four times the price. When news of this reached the dealers and public, K6-2s sales had sky rocketed to 43. 9 percent of the market, while Intel s dropped to 40. 3 percent.

Since then, both AMD and Intel have released their working, high-end processor. The Intel Pentium III processor comes with 32k of L1 cache, and 512kb of half speed level 2 cache. It runs on a 100mhz bus system and it still runs on the old fashioned SSE graphics accelerator and a slightly advanced floating point unit. With the new Athlon processor by AMD, it seems double is the word, because they at least doubled all of the P3 statistics. It has 128k of L1 cache, it is Alpha EV6 (an IBM based machine) compatible, and it runs on a 200mhz front side bus. It does still use the 3Dnow graphics, but it has made compatibility for other graphic accelerators, including AGP graphics.

AMD has also stuck its foot in some of Intel s market. Including Gateway and Compaq computer corporations. A joint product between AMD, Compaq, and Kryotech led to the creation of the 1ghz machine. This gave AMD the role of

having the world's fastest processor. Kryotech's patented cooling system kept the AMD Athlon processor cool enough to allow it to run at speeds of 1ghz (1000mhz) and even slightly more.

Right now that AMD is producing the best chip for the best price. This has also brought many computer prices down to the point where most families could afford home computers; a loaded AMD Athlon 600mhz computer sold for \$1429, while the same computer with an Intel Pentium III sold for \$1849. The same computer and it is four hundred dollars more for one reason, the name Intel. To show this case even further a Pentium III 650mhz system cost the same as an Athlon 800mhz system.

Intel has slowly been lowering their prices, but they still cannot go as low as AMD's prices. For these reasons, AMD is the leading chipmaker and furthermore their prices are why the majority of the population can own a home computer.

The Counter Argument Why Intel Is Still Superior To AMD

The confounding saga of the semiconductor industry added another bizarre chapter on 13 October 2000 when AMD beat earnings estimates amidst a supposedly slowing PC market. But if you think that's surprising, wait until you see how investors took the news.

After remaining silent while several others in the PC semiconductor sector, including arch-rival Intel, preannounce earnings warnings, AMD surprised investors with earnings of 64 cents per share, as opposed to the expected 62 cents per share. So what happened? Wall Street greeted the seemingly good

news by selling off AMD shares. The company lost about 5 percent of its market value on Thursday. While AMD's stock got punished in return for its positive news, Intel, the company that AMD supposedly stole market share from during the quarter, managed to stage a small rally, tacking on 5 percent to its own ailing share price. A closer look at AMD's numbers revealed a much more disconcerting story for analysts. Top-line revenue numbers for the company fell short, by approximately \$10 million, while Intel's continued to rise (See Table 2). Add in lower average selling prices (ASPs) and an impending inventory overload, a really bad thing for semiconductor companies, and it was enough to prompt Lehman Brothers and Prudential Securities to lower their target price on the stock and revise earnings estimates downward for 2001. Their ASPs were about \$9 below than what was expected, and the company has a reputation of bringing down ASPs when things are tough.

In addition, some anticipated pricing pressures are going to affect AMD over the next several quarters as Intel initiates a price war. "We maintain a cautious view on the stock given the potential for a more aggressive pricing environment in both flash memory and processors," said a report from Lehman Brothers, whom lowered their fourth-quarter estimates from 74 cents a share to 68 cents a share.

But in the end, the fight between Intel and AMD shakes out the way it always has, in Intel's favor for at least the next two to three years. Intel currently trades at about 21 times 2001 earnings estimates, while AMD has a price-to-earnings ratio of about 9 times 2001 estimates. Given that AMD produces a

far more superior product than Intel, the difference that separates the two in the market place is between the P/E ratios and revenue. That makes Intel the smarter player in the PC semiconductor market, however, only for a limited period time if both companies maintain the same pace of growth.

Future Outlook For AMD

The sky is the limit for AMD s future. While PC sales are expected to slow down, that shouldn t hinder AMD s growth because their plenty business to take from Intel. As long as AMD continues to develop the fastest and most reliable chips, it will continue to take disappointed Intel customers. Advanced Micro Devices exceeded its fourth-quarter sales target and said first-quarter revenue growth will be in the high teens, as oppose to what market analyst are predicting. Sales next year will rise faster than the projected chip industry growth rate of 22 percent, Chief Executive Jerry Sanders said at a meeting that was broadcast on the Internet. Coming off its recent success in the desktop PC market, the company is taking aim at two other Intel strongholds: laptops and powerful server computers. Advanced Micro expects to continue to gain market share by introducing new chips, such as low-priced Duron processor, for laptop computers and servers that power Web sites and corporate networks.

A big part of Advanced Micro's success this year came from surging demand for flash-memory chips, store information when devices are turned off, which AMD absolutely marketed successfully in Europe. AMD successfully marketed its flash-memory chips in Europe, whereas, Intel failed miserably and ended up hurting the company s 3rd and 4th quarter earnings report. Contract

extensions for flash memory chips are currently under with industry leaders such as Cisco, Lucent, Alcatel SA, and they just signed Nortel Networks to a 3-year contract. At these growth expectations, AMD's 52-week stock price target should be around 50 to 55 dollars a share.

Conclusion

In spite of what the numbers currently say about AMD and Intel, which the numbers favor Intel greatly, AMD is without a doubt the better company with the best outlook for the future. AMD develops and manufactures better products and markets its products more successfully. Intel has virtually, in a way monopolized, the PC chip market for the last six years. AMD had become its only competitor after four years of dominations, but not seen as even a small threat, and has now just become a major threat a year ago with the introduction of the Athlon chip. This sudden competition by AMD caught Intel off guard, sending them into a tailspin that they seem to be unable to get out of. If AMD can hurt Intel, the semiconductor God, this much in only 1 year after Intel dominated for years. It is without a doubt AMD will soon control the semiconductor market in approximately two to three years.