“We expect to end 2009 with profit, positive cash flow, and bright prospects for 2010.”

T.J. Rodgers, 2008 Annual Report

Cypress PSoC® Touch Solutions Drive Market Valuation

PSoC-based touchscreen solutions have driven Cypress’s shares to a record level, eclipsing the heights of the dot.com boom.
NEW PSOC FAMILIES DRIVE 10x MARKET EXPANSION TO $15 BILLION

In 2009, Cypress introduced two new PSOC® programmable system-on-chip architectures — PSOC 3 and PSOC 5—along with the PSOC Creator™ integrated design environment. Cypress’s new 8-bit PSOC 3 and 32-bit PSOC 5 architectures improve PSOC 1 analog performance by 20x in speed, and 16x in accuracy, and CPU performance by 7.5x-25x. The new product families expand Cypress’s addressed market from $1.6 billion to more than $15 billion in 2012. PSOC Creator is a unique design tool that allows engineers to “design the way they think,” using schematic-based design capture and dozens of certified, pre-packaged peripherals to speed the design of common end-product features.

PSOC SERVED AVAILABLE MARKET
Includes Analog, Logic, MCUs, Touch

<table>
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<tr>
<th>TAM</th>
<th>8-bit + Analog/PLD*</th>
<th>16-bit + Analog/PLD*</th>
<th>32-bit + Analog/PLD*</th>
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<th>PSOC 3</th>
<th>PSOC 5</th>
<th>TOTAL</th>
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<tr>
<td>2010</td>
<td>$1.6 B</td>
<td>+ $5.5 B</td>
<td>+ $5.6 B</td>
<td>$12.7 B **</td>
</tr>
</tbody>
</table>

* Portion of Standard Analog/Logic market accessible to PSOC.
** SAM forecast to grow to $15.5 B by 2012.

PSOC 3 AND PSOC 5 TARGET GROWING MARKETS

PSOC 3 and PSOC 5 extend the PSOC platform’s reach into new markets by adding high-precision programmable analog capabilities and more processing power. Here are three new market opportunities served by our new families:

"PSOC Creator is unlike other embedded design tools we have seen. It combines the speed and convenience of pre-built peripheral functions with the flexibility to create and reuse customized IP."

Rich Wawrzyniak
Sr. Analyst, ASIC and SoC
Semico Research Corp.

"Cypress’s PSOC Creator is a unique design environment. You can quickly and easily create, test and implement complex functions and drop them on the board."

Tom Gray
Design Engineer
Agilent Technologies Inc.

PORTABLE MEDICAL DEVICES
($170 million market in 2011)

Portable medical devices such as glucose meters are ideal candidates for Cypress’s new PSOC 3 and PSOC 5 solutions. Biometric and optical sensing demand precision analog capabilities and a configurable, single-chip total solution, which also performs calculations, drives LCD displays, enables touch-based capacitive-sensing interfaces, and provides communication links, such as USB.

MOBILE ACCESSORIES
($250 million market in 2010)

New applications and add-ons for mobile devices are proliferating in such areas as digital audio and infotainment systems. PSOC’s ability to provide both sensing and interface controls makes it a natural fit for this growing market.

SYSTEM MANAGEMENT
($250 million market in 2012)

PSOC is the ideal solution for system management, the function overseeing voltage sequencing, monitoring, power management, fan control and other system functions, often simultaneously.
FELLOW SHAREHOLDERS:

INTRODUCTION*

In the last sentence of the 2008 Annual Report, I wrote that "we expect to end 2009 with profit, positive cash flow, and bright prospects for 2010." My optimism was tempered by the fact that the as-yet unnamed "Great Recession" had begun in the fourth quarter of 2008, driving our share price below $3.00, and that our internal plan was to lose money for the first two quarters of 2009 before returning to profitability. Nonetheless, we believed that we would be cash-flow positive and return to profitability quickly when the recession eased, because we had cut costs dramatically, for example, by proactively reducing our headcount by about 600 during the last year. As shown in Figure 1, by year-end 2009, Cypress had no debt and $333 million in cash and investments, an improvement in net cash of $746 million over year-end 2005, our last year as a Moore's Law company, when we had $187 million in cash and $600 million in debt.

![CASH AND DEBT](image)

Figure 1. Cypress had $333 million in cash and investments with no debt at year-end 2009, a $746 million net cash improvement over the year-end of our last year as a Moore's Law company, 2005, when we had $187 million in cash and $600 million in debt.

This turnaround in our net cash position is primarily attributable to the successful execution of our 2006 Mission Statement, shown in Figure 2.

In 1992, we adopted a strategy for Cypress to grow with new ideas from internally funded startup companies. Members of the "Federation of Entrepreneurs," as we called it, used Cypress as their venture capital source and were encouraged to start new businesses outside the Cypress mainstream. Our two most successful startups were SunPower—which was spun out to Cypress shareholders in September 2008 in a stock dividend worth $2.6 billion, or $16.42 per share—and Cypress MicroSystems, which was founded in 1999 and invented the Programmable System-on-Chip: PSoC®. By 2006, it was clear to us that PSoC was the most important new chip in Cypress's history, and we revised our mission to focus on inventing and selling programmable solutions. While that may sound like a simple shift in product focus, it really demanded that we transform Cypress from top to bottom.

For example, I personally participated in the invention of every generation of Cypress technology from our first 1.2-micron technology in 1983 to our last 90-nanometer technology, which we brought to market in 2003. To pursue our new mission, Cypress—the company that prided itself on the innovative and low-cost development of Moore's Law technologies—had to give up following Moore's Law. We also had to move our SRAM manufacturing to foundries that provided cutting-edge processes. Internally, we focused instead on developing value-added features, such as analog capability, for our existing wafer manufacturing processes. We also transferred those processes to low-cost Chinese foundries so that we could ramp up our wafer output rapidly without large capital invest-

* This report is written so that shareholders with a time constraint can read the introduction, the 15 figures and captions, and the conclusion—and get 80% of the information.
Figure 3. Cypress's “Vision of the Future” outlines what each organization at Cypress needed to do to align with the programmable solutions Mission Statement. (The redacted figures are proprietary.) We have made a lot of progress to date. Our technology development and manufacturing transformations are nearing completion. We are still working on our design transformation, which requires new design methods and tools. This year, we added a sixth vision statement to the list—to dedicate Cypress to better customer service.

ments. While we maintained our Fab 4 facility in Bloomington, Minn., to develop and manufacture new technologies, we sold our Fab 1 R&D plant in San Jose, Calif., in 2007 and closed our Fab 2 facility in Round Rock, Texas, in 2008. These major changes greatly enhanced our cash flow and profitability.

As part of our programmable products Mission Statement, first presented to investors in our 2006 Annual Report, we created a “Vision of the Future” (Figure 3) to describe how all Cypress organizations needed to transform themselves.

We have made significant progress toward achieving our Vision of the Future. For example, Cypress now serves nearly 7,000 PSoc customers. Our technology development and manufacturing transformations are nearly complete, but we are still in mid-transformation in our chip design group, which needed new design tools and a change in our design talent mix. We have closed eight chip design centers and doubled the number of software engineers in the company, both to cut R&D costs and to serve our new mission. Finally, we have added a sixth vision statement, on customer service, to “proactively improve service using customer feedback to become not only the supplier of choice, but the customer's recommended choice.” Simply put, Cypress's OEM-standard level of service was adequate for our past, but not for our future. I've been personally involved in our “Ease of Doing Business” task force for over a year. The purpose of the task force is to change every aspect of our interaction with our customers—on the website, in our terms and conditions of commerce, in applications support, on-time delivery, quality, etc.—to become our customers' vendor of choice. Driving customer service improvement is one of the company's three top priorities for 2010.
FINANCIALS

Our 2009 revenue was $668 million, down 12.8% from the $766 million reported in 2008, due primarily to the recession. Nonetheless, we reported $0.10 in EPS in 2009, down from $0.20 in 2008, but still a profit in a recession year. Cypress rebounded very rapidly from the recession as shown in Figure 4.

Our revenue collapsed to $139 million in the first quarter of 2009, but we redoubled our cost-cutting efforts and grew revenue rapidly throughout the year, primarily due to a surge in sales of our PSoC-based TrueTouch™ products into the booming touchscreen cell phone market. Internally, our cost-cutting effort was known as “World Class Cost,” an effort that left no stone unturned—from the cost of airline tickets, through liquid nitrogen and other facilities costs, on down to that of bottled water. The number of vice presidents in the corporation was reduced from 80 to 55 in a structured layering effort. The World Class Cost effort has helped to drive down Cypress’s operating expenses an average of 4.3% per year over the last four years—even as we maintained our 2009 R&D investments at 21.9% of sales—as shown in Figure 5.

Figure 5. Cypress’s operating expenses have dropped 4.3% per year over the last four years due to an ongoing cost-cutting effort called “World Class Cost” that tracks and reduces almost every cost in the company from liquid nitrogen to the authorized number of vice presidents.

Our recent technology, manufacturing and marketing initiatives have rewarded our shareholders. Our stock closed at $10.56 per share on December 31, 2009, twice the $5.22 first-day closing share price of “New” Cypress shares on September 30, 2008, the day after the SunPower spinout. Our $10.56 year-end share price was also 3.9 times higher than the $2.72 share price recorded at the bottom of the recession in November 2008. As indicated on the graph of Cypress’s lifetime share price in Figure 6, the two driving forces in the appreciation of Cypress’s share price are first the success of SunPower in the 2004-2008 timeframe and—more importantly and enduringly—the success of PSoC both before and after the SunPower spinout.
Figure 6. Cypress went public on May 29, 1986 at a share price of $0.71, adjusted for splits. The share price closed at $10.56 on December 31, 2009—near its all-time high and well above the peak dot.com boom price of $9.18. The lifetime CAGR of Cypress’s share price is 12.1% per year over the 23 years graphed. On its first trading day after the SunPower spinout, September 30, 2008, “New” Cypress closed at $5.22, then dropped as low as $2.72 during the recession before ending 2009 at $10.56.

PSoC

The cover of last year’s Annual Report featured a graphic showing Cypress’s dramatic progress in the 8-bit microcontroller (MCU) market from 2003 through 2008. Although 2009 PSOc unit volume was roughly flat at about 160 million units year-on-year, PSOc revenue increased due to the higher prices of the more complex PSOc devices sold. Meanwhile, in 2009, Cypress was the only one of the Top 10 worldwide 8-bit MCU suppliers to grow revenue in the category, allowing it to move up in the ranking from No. 12 to No. 8, as shown in Figure 7.

Our future growth will depend not only on the continued growth of the original PSoC 1 family, but on added design wins from our newly introduced PSoC 3 and PSoC 5 families, which are much higher in performance, and hence higher ASPs, than our PSoC 1 family, as described in Figure 8.

Our second-generation PSoC 3 and PSoC 5 products are 7.5 and 25 times higher in computational performance than PSoC 1, respectively. Their analog circuitry is 256 times more accurate, while operating 10 times to 30 times faster than PSoC 1. They also have 10 times more programmable logic gates and draw three times to eight times less power than PSoC 1. In short, PSoC 3 and PSoC 5 are exactly the next-generation products that many of our PSoC 1 customers have been asking for. PSoC 3 achieved its first revenue in 2009 and will produce its first $1 million quarter in 2010. PSoC 5 was sampled in 2009 and will garner its first revenue in 2010. As shown in the graphic on the inside front cover, PSoC 3 and PSoC 5 will serve a market many times larger than the PSoC 1 market alone. The PSoC 1 served market is $1.6 billion, to which PSoC 3 adds $5.5 billion and PSoC 5 adds another $5.6 billion, for a total PSoC served market of $12.7 billion.
CYPRESS PSoC TAKES SHARE IN 8-BIT MCU MARKET

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Source: Gartner Dataquest/ Semiconductor Industry Worldwide Annual Market Share Database, March 2010

Figure 7. Cypress’s original PSoC products (now called PSoC 1) took worldwide market share in the 8-bit MCU market in 2009, moving from the No. 12 to the No. 8 position based on revenue.

PSoC 3 AND PSoC 5: THE SECOND GENERATION

<table>
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<tr>
<th>CENTRAL PROCESSING UNIT (CPU)</th>
<th>PSoC 1</th>
<th>PSoC 3</th>
<th>PSoC 5</th>
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<td>TYPE</td>
<td>PROPRIETARY</td>
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<td>ARM CORTEX M3*</td>
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<tr>
<td>BITS</td>
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<td>8</td>
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<td>CLOCK FREQUENCY (MHz)</td>
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<tr>
<td>MIPS**</td>
<td>4</td>
<td>30</td>
<td>100</td>
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<tr>
<td>FLASH MEMORY SIZE (KBYTES)</td>
<td>32</td>
<td>64</td>
<td>256</td>
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</table>

ANALOG TO DIGITAL CONVERSION

| 8 BITS@ KILOSAMPLES PER SECOND*** | 31     | 384     | 1,000  |
| 12 BITS@ KILOSAMPLES PER SECOND | 0.5    | 192     | 1,000  |
| 20 BITS@ KILOSAMPLES PER SECOND | -      | 0.18    | 0.18   |

PROGRAMMABLE LOGIC (GATES)     | 2,000   | 20,000  | 20,000 |

POWER (MILLIWATTS @ 24 MHz)    | 48      | 6       | 14     |

* An enhanced version of Intel’s classic microprocessor, and a new 32-bit processor from ARM.
** Millions of instructions per second (computational performance).
*** Thousand of samples per second.

Figure 8. The new PSoC 5 family was sampled in 2009. The PSoC 3 family achieved its first revenue in 2009. The blue text in the table above shows important areas of dramatic improvement for the new families. PSoC 3 has 7.5 times the computational power of PSoC 1, while PSoC 5 features an advanced 32-bit processor that is 25 times more powerful. Both the PSoC 3 Central Processing Unit or CPU (Intel 8051-based) and the PSoC 5 CPU (ARM-based) have rich, publicly available software “ecosystems” that do not burden Cypress engineering, as did PSoC 1, which has a Cypress-proprietary processor. The new PSoC 3 and PSoC 5 families also dramatically increase the $1.6 billion PSoC 1 served market by $5.5 billion and $5.6 billion, respectively, to $12.7 billion ($15.5 billion in 2012).
Over the last year of dealing directly with customers on PSoC 3 and PSoC 5, it has become apparent to us that the real competition for these new PSoC products is less microcontroller suppliers (all of whom can brag about their CPUs) than analog companies that sell discrete integrated circuits that can be replaced by PSoC’s programmable analog. Figure 9 lists the analog components available on just one of the literally millions of configurations of a PSoC 3 chip, which can create and integrate 30 different analog functions with a value of $8.92. Although the savings of $8.92 is significant, the biggest advantage of PSoC 3 may be that of integration itself—enabling our customers to buy a single PSoC chip, rather than having to buy 30 discrete analog products from three or four different vendors—and make them all work together on a PC board under time-to-market pressure.

PSoC is a potent competitive weapon that enables us to quickly expand our markets. For example, mechanical buttons and sliders have rapidly disappeared from new consumer products, having been replaced by capacitively sensed interfaces. When that new opportunity first arose in 2005, we simply programmed our PSoCs to perform a new function we now call CapSense® and entered the market quickly, without having to design any new chips. Furthermore, PSoC not only “read” the new capacitive buttons, it also computed the results called for by various button sequences—and did something about it—such as turning on lights, activating solenoids and running small motors. It was easy for Cypress to be one of the first to market with a capacitive sensing solution, because we only had to program a PSoC chip we were already manufacturing. In my keynote address at the Embedded Systems Conference in Boston in September 2008, I dubbed this forward-looking aspect of PSoC as: Solving problems you did not know existed for customers you have never met—the ultimate in time to market.

Today, as the recognized market leader, Cypress offers several newer generations of CapSense chips, which can run hundreds of buttons, even in environments where water drops have to be electronically detected and eliminated as false finger touches.

The touchscreen cell phone revolution took off very quickly in 2008. We were able to capitalize on that opportunity without designing a new chip. As pictured on the front cover, we programmed “Radon,” a PSoC introduced in 2004, to perform the touch-sensing function on a cell phone, again solving a problem we had not anticipated for a customer to whom we had not previously sold PSoCs. The touchscreen application is very similar to the capacitive button application in that PSoC is used to sense minute changes in the capacitance of an array of electrodes—only in a touchscreen application, the electrodes are made from a transparent conductor (Indium Tin Oxide, or ITO) overlaid on the cell phone display. There are added problems with ITO touchscreens. For example, the material is not a good conductor like the copper used on capacitive buttons, making electronic sensing more difficult—but that is the forte of PSoC: solving problems with software, rather than with new chips.

In last year’s Annual Report, I introduced our third-generation touchscreen chip, code-named “Indium.” It is now designed into multiple cell phones and is expected to produce over $30 million in revenue in 2010. Another of Cypress’s top three objectives for 2010 is to design our fourth-generation touchscreen product, creatively code-named “TSG4,” to handle bigger screens faster using less power than Indium. We expect to become No. 1 in the touchscreen IC market in 2010, thanks to the head start that PSoC has given us.
Our success in the cell phone touchscreen market is now being replicated in other high-volume consumer markets, including digital still cameras, printers, GPS systems and tablet computers. We also have multiple touchscreen design wins in the automotive market that will generate revenue in 2011-2012.

Finally, I wrote last year about "PowerPSoc®," a modified PSoC 1 chip that contains large power transistors capable of controlling 36 watts of power to serve the rapidly growing Light Emitting Diode (LED) lighting market. (Thirty-six watts of LEDs produce the same amount of light as 360 watts of incandescent bulbs.) We expect PowerPSoc to generate its first $1 million quarter early in 2010 and grow in the future along with the world's conversion to energy-efficient LED lighting.

OTHER NEW PRODUCTS

Figure 10 shows that 81% of Cypress's revenue now comes from proprietary products that have no pin-compatible second source, eliminating bidding wars on the majority of our business.

![Proprietary Revenue as % of Total](image)

Figure 10. About 81% of Cypress's revenue now comes from proprietary products; i.e., from products that have no pin-compatible second source. Further, 50% of our revenue comes from proprietary products that are also programmable.

The consistent increase in our proprietary revenue has led to a consistent rise in our Average Selling Price (ASP), as shown in Figure 11.

![Rising ASPs](image)

Figure 11. The higher proprietary and programmable content of Cypress's products has contributed to a 5.6% annual rise in our ASP over the last four years.

We are particularly pleased that we were able to increase our ASP slightly in 2009, an otherwise terrible year for price erosion due to the recession. In particular, PSoC makes it easier for us to hold our prices, not only because it is a proprietary product, but also because we can quantitatively demonstrate to our customers the value of all of the products that a PSoC replaces on their boards.

Finally, I want to offer my congratulations to our SRAM group for taking over the No. 1 position in the world in the SRAM market in 2009. I began working on SRAMs in 1975 at American Microsystems Inc. Later, I managed the SRAM product line at Advanced Micro Devices in 1980. Cypress's first product in 1983 was a 1-kbit SRAM that is 144,000 times smaller than the densest 144-Mbit SRAM Cypress ships today. Our Memory and Imaging Division VP, Dana Nazarian, a 22-year Cypress veteran who started at Cypress as a wafer fab engineer, uses the iconic photograph of Muhammad Ali standing over a defeated Sonny Liston in their famous 1965 bout to illustrate the victory of the "Last Man Standing" to symbolize the long-term effort of the Cypress SRAM group to persevere through some very difficult times to eventually achieve the No. 1 position. The overall SRAM market is not growing rapidly, but our SRAM group does provide the cash flow to develop other new products at Cypress.

When Cypress entered the SRAM business in 1983, we trailed more than 20 competitors in revenue, including Intel, the inventor of the SRAM; AMD; National Semiconductor and Motorola (now Freescale). Furthermore, all of the big Japanese electronics companies—including Hitachi, NEC, Fujitsu, Toshiba and Mitsubishi—were in the SRAM
THE LAST MAN STANDING

AgigA Tech is our newest startup, based in San Diego, Calif. It makes the highest-density, high-speed, nonvolatile memory systems available. Its products range in density from 4 gigabits to 16 gigabits, 1,000 times to 4,000 times larger than the single-chip nonvolatile SRAMs produced by our MID division. Nonvolatile memories are used to save critical data when the power goes down, for example, in a disk drive system holding bank account data. The unique feature of AgigA Tech's nonvolatile memories is that they are big and very fast, and thus able to be used as normal workhorse memories, while still surviving power outages. We also expect AgigA Tech to achieve its first $1 million quarter this year.

Our Optical Navigation System (ONS) business unit has several key design wins with a special PSoC to which we have attached a precise laser-based optical position sensor. We have been working on this product for five years and found a strong market for it in the fingertip sensors used on cell phones and other portable equipment. We also expect our ONS business unit to achieve its first $1 million quarter in 2010.

Our China Business Unit (CUB) is located in Shanghai. Its mission is to define and design chips in China for local customers. CUB's first big success will be the "Lithium 2" chip that will become the market share leader for motor control in the high-volume Chinese eBike market, replacing the generic PSoC that currently holds that position. We expect CUB to post its first $2 million quarter in 2010.

Our startups all report their revenue publicly as part of ETD. While ETD investments in R&D have been a sink of funds in the past, we expect ETD revenue to grow from $7.5 million in 2009 to over $20 million in 2010. By 2011, ETD will add another significant component to Cypress's overall revenue growth.

SHAREHOLDER VALUE

Cypress employees holding stock options did not receive the SunPower stock dividend valued at $16.42 per share and had their intrinsic option value preserved by receiving 4.12 post-spin Cypress stock options for every pre-spin Cypress option they held. This adjustment created new Cypress options that would have been highly dilutive, had we not mounted a concerted effort to hold our share count down.
Figure 13 shows that our 2009 weighted-average, fully diluted share count was just over 180 million shares, in line with the prior four years, while our basic share count even declined year-on-year. To achieve that result, Cypress bought back 12.6 million shares in 2008 before the SunPower spinout and 24.5 million shares just after the spinout at a total cost of $376 million. In 2009, we repurchased another 5.8 million shares for $46 million. We are prepared to repurchase more shares, but are prohibited from doing so until September 30, 2010, the second anniversary of the SunPower spinout. Nonetheless, the 42.9 million shares we did buy back give us significant EPS leverage for the future.

CYPRESS SHARE COUNT

Figure 13. Despite the additional options and shares created by the SunPower spinout, Cypress maintained a relatively flat share count by buying back 42.9 million shares. In 2008, we repurchased 12.6 million shares before the spinout and 24.5 million shares after the spinout at a total cost of $376 million. In 2009, we repurchased another 5.8 million shares for $46 million.

The market rewarded our performance in 2009. Figure 14 shows that Cypress stock appreciated 136% in 2009 vs. year-end 2008. This performance exceeded that of the two major semiconductor indices (the SOX and the S&P Semi), as well as the broad Dow Jones Industrial Average (DJIA) and Nasdaq indices. This is not a fluke; it is the fifth consecutive year that Cypress stock has outperformed all four indices.

Figure 14. Cypress’s share price appreciated 136% in 2009, relative to its year-end price in 2008. This performance beat the two semiconductor indices (the SOX and the S&P Semi), as well as the broad DJIA and Nasdaq market indices.


The horizontal line in Figure 15 highlights graphs depicting multiyear investments ending in 2009 and beginning in any year from 2004 through 2008. The percentage figure in the upper-right corner of each graph is the CAGR for the investment period depicted. For example, the 42% CAGR in the upper-right graph means that for someone purchasing Cypress stock at year-end 2004 and selling at year-end 2009, the CAGR of that investment was 42% per year.

In 14 of the 15 investment scenarios presented, the CAGR for Cypress stock is 19% or more. In only one case, for stock bought in 2007 and sold in 2008, is the CAGR negative (-22%), but even in that case, the losses are less than those of the indices.
Figure 15. The upper left graph is a repeat of Figure 14, which displays the 136% appreciation of Cypress stock bought at year-end 2008 and sold at year-end 2009. The next graph highlighted along the diagonal arrow shows that Cypress stock bought in 2007 and sold in 2008 lost 22% in value. It is the only graph of the 15 that shows a Cypress loss for the year. Even then, the -22% performance preserved capital during a recession by outperforming the SOX, S&P Semi, DJIA and Nasdaq indices.

The graphs highlighted by the horizontal line depict the results of multiyear investments. For example, the upper-right hand graph shows that a five-year investment in Cypress with shares purchased in 2004 and sold in 2009 yielded a 42% CAGR (468% total appreciation) over that period. The rest of the graphs highlighted by the horizontal line show that for investments sold in 2009, the CAGRs were 47% for stock bought in 2005, 58% for stock bought in 2006 and 38% for stock bought in 2007.
CONCLUSION

Cypress made a lot of progress in 2009 toward achieving its new programmable products Mission Statement. We now have moved up to the No. 8 position in the worldwide 8-bit MCU market for 2009, from No. 12 in 2007-2008 and No. 29 in 2003-2004.

Our second-generation PSoC products fared well during 2009. PSoC 3, with 7.5 times the computing power of our flagship PSoC 1, has received multiple design wins and achieved first revenue. PSoC 5, which features a 32-bit ARM-based processor with 25 times the performance of PSoC 1, sampled in 2009 and will produce first revenue in late 2010. Together PSoC 3 and PSoC 5 increase the market served by all PSoCs from $1.6 billion to $12.7 billion.

PowerPSoC, a modified version of PSoC 1 capable of driving 36 watts of LED lighting, will see its first $1 million quarter by mid-year.

We also expect each of our four Emerging Technology Division business units to produce significant revenue this year. Our Optical Navigation System, AgigA Tech’s large nonvolatile memories, the China Business Unit’s first products and Cypress Enviosystems’s Wireless Pneumatic Thermostat are each expected to generate their first $1 million or $2 million quarters in 2010. In aggregate, we expect ET&D’s revenue to grow from $7.5 million in 2009 to over $20 million in 2010.

We have transformed Cypress into a capital-efficient, fab-lite company. We have aggressively bought back 42.9 million Cypress shares to hold down our share count, despite the potentially very dilutive impact of the SunPower spinout, in which we distributed $2.6 billion ($16.42 per share) to our shareholders. Our SRAM group has taken the No. 1 position in the world and now produces consistent profitability and cash flow.

PSoC revenue grew nicely during the recession year of 2009 due to another unanticipated market trend—touchscreen cell phones—which will get bigger in 2010. Because of the configurable and programmable nature of PSoC, we were able to enter that market quickly in 2008, giving us the momentum to become the largest supplier of touchscreen IC chips by the end of 2010.

We are often surprised by the nature and intensity of new-product demands from the market. Our next big new product will likely come from solving a problem we were unaware of for a customer we do not know. That’s great. PSoC was designed to shine in chaos.

That’s why, barring a double-dip recession, we expect a strong 2010 with significant revenue growth and solid profitability.

T.J. Rodgers
President and CEO

This is the 24th Annual Report I've written for our public shareholders. I thank the Cypress employees who helped to create the report, often after-hours and over the weekends. We tell our own story without the use of ad agencies or PR firms. TJR

All financial comments relate to our non-GAAP financial reporting unless otherwise noted.

The preceding letter contains several forward-looking statements made subject to the safe harbor provisions of the Private Litigation Reform Act of 1995, regarding, among other things, new product designs and releases, our expected product features and performance, our market share, our financial performance in the current economy, our expectations for the touch screen market, the future financial performance of the internal start-ups in our Emerging Technology Division and other future events as well as the expected revenue for certain of our products in 2010 and beyond (including especially for PSoC 3 and PSoC 5) and other financial performance projections for Cypress and certain of its business units and operating divisions. Readers are cautioned that these forward-looking statements are not guarantees and may differ materially from actual future events or results due to a variety of factors, including but not limited to: the possibility of a further decline in the general economy, the economic conditions and growth trends in the semiconductor industry and the markets served by Cypress and its Emerging Technology Division, the impact of increased competition, market acceptance of new product offerings, industry wide shifts in supply and demand, the ability of our sales and marketing group to execute on our PSoC initiatives and other new product launches, the cost efficient utilization of our manufacturing capacity, our ability to continue to drive down our operating expenses and other risks identified in Cypress’s most recent reports on Form 10-K and 10-Q, including in this Annual Report. We use words such as “anticipates,” “believes,” “expects,” “forecast,” “future,” “intends,” “look forward,” “plans,” “should,” and similar expressions to identify such forward-looking statements. All forward-looking statements included in the preceding letter are based upon information available to, and the expectations of, Cypress management as of the date of the letter, which may change. We assume no obligation to update any such forward-looking statement. Such information speaks only as of the date of this release.
EMERGING TECHNOLOGIES

In 1992, T.J. Rodgers wrote in his book "No Excuses Management" that he wanted Cypress to be a "Federation of Entrepreneurs," a company that renewed itself by launching internal startups to take Cypress into new businesses. SunPower and Cypress Microsystems, the inventor of PSoC, are the two biggest successes of our internal startups, now called the "Emerging Technology Division" (detailed below).

OVATION OPTICAL NAVIGATION SOLUTIONS

Powered by PSoC, Cypress's OvationONS™ (Optical Navigation System) is the world's first programmable laser navigation system-on-chip, and the industry's most accurate and lowest-power navigation solution. This optical navigation sensor delivers fast and precise tracking on multiple surfaces. Key applications include mice, keyboards, handsets, portable media players, digital still cameras and camcorders, gaming controllers, netbook computers, and white goods. The served market is about $400 million in size today, and expected to grow to more than $1 billion per year by 2014.

Cypress's OvationONS™ laser-based optical navigation sensor chip (below, left) and module (below, right) enable cursor control in a variety of systems by shining a laser toward the fingertip and tracking its movement as shown in the illustration (left).

AGIGA TECH

Stores 400,000 pages of secure data

AgigA Tech produces the highest density, high-speed nonvolatile memories available. These memories protect mission-critical data in RAID and other storage systems, as well as networking, gaming, automotive, industrial and embedded systems. At up to 16 gigabits, its flagship product, AGIGARAM™, is the highest-capacity NVRAM available. AgigA Tech serves a $2 billion market, growing to $4 billion by 2013.

CYPRUS ENVIRONMENTAL SYSTEMS

Cypress Environmental Systems produces devices that improve energy efficiency. One example is this Wireless Pneumatic Thermostat (WPT), which automates the control of legacy pneumatic heating systems using the Internet plus an RF link. Cypress Environmental Systems' WPT can replace $1.2 billion in pneumatic thermostats (the most common in the U.S.) and pay for itself in four months with reduced energy consumption.

CHINA BUSINESS UNIT

Centered in Shanghai, Cypress's China Business Unit (CBU) designs and produces semiconductor solutions for the China marketplace. CBU's big successes so far are the PSoC "Lithium" chips that have captured 30% of the eBike market (No. 1 market share) and the "Neon" chip that puts PSoC plus waterproof CapSense into white goods.
PSOC's extraordinary flexibility puts Cypress inside thousands of the world's most unique and innovative products.

CYPRESS INSIDE THE TOUCHSCREEN REVOLUTION: PSOC-based TrueTouch not only powers the touchscreens of modern handsets, but also enables them to do CapSense, light sensing and other system overhead functions that are simply not available in competing touchscreen-only chips. We expect Cypress to become No. 1 in the touchscreen IC market in 2010.