TREFIS

Intel

ANALYSIS *for* NASDAQ : INTC

AUGUST 2, 2012

$31.94	$25.92
$159.8 B MKT CAP	$130.2 B MKT CAP
Trefis Estimate	*Market Price*

See the Full Analysis for Intel on Trefis

— CORPORATE SNAPSHOT —

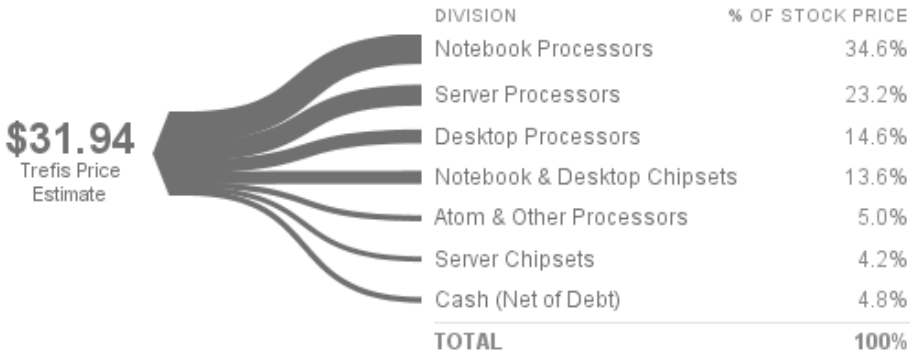
Intel manufactures and markets microprocessors used in servers, desktops and notebooks. Microprocessors are a PC's central processing unit (CPU) or the brain behind the computer. A microprocessor is the single most important component that drives computer's power and performance.

Intel also manufactures chipsets used in desktops, notebooks and wireless devices. A chipset operates as the PC's nervous system, sending data between the microprocessor and input, display and storage devices such as the keyboard, mouse, monitor, hard drive and CD or DVD drive.

Intel has been on acquisition spree recently and has acquired McAfee and Infineon's Wireless Business Solutions unit.

— VALUATION HIGHLIGHTS —

1. Notebook Processors constitute 35% of the Trefis price estimate for Intel's stock.
2. Server Processors constitute 23% of the Trefis price estimate for Intel's stock.
3. Desktop Processors constitute 15% of the Trefis price estimate for Intel's stock.



See the Interactive Valuation Breakdown on Trefis

Our share price estimate and the overall company value is derived by summing-up the values of individual divisions/businesses in a sum-of-the-parts analysis. The value of each division is calculated using a discounted cash flow (DCF) methodology.

We forecast fundamental drivers like pricing, market share, and profit

margins for different businesses in estimating the division's value within the DCF framework. The analysis below primarily focuses on those important forecasts that drive our share price and value estimate.

Our complete analysis, including sources of historical data, underlying equations and additional discussion are available on www.trefis.com.

— POTENTIAL UPSIDE & DOWNSIDE TO TREFIS PRICE —

Below are key drivers of Intel's value that present opportunities for upside or downside to the current Trefis price estimate for Intel:

Notebook Processors

- Notebook Processor Average Pricing: Currently we forecast this figure to decline from an estimated $122 in 2011 to about $108 by end of our forecast period resulting from increased competition from AMD & ARM-based players in the future. However if innovations such as Sandy Bridge can improve the average price for Intel's notebook processors to about $130 by end of our forecast period, there can be more than 5% upside to our price estimate. On the other hand there could be a downside of a similar order if the average price were to dip down to as low as $96 by end of our forecast period, a level seen during the recessionary period of 2009.

Server Processors

- Intel's Server Processor Market Share: We estimate that this figure will decline from an estimated 94.5% in 2011 to 79.3% by end of our forecast period. However if Intel's server processor share goes down to historical levels of 75% seen in 2007, there can be a mild downside. On the other hand, there can be slight upside if Intel can maintain its current position.

For additional details, select a driver above or select a division from the interactive Trefis split for Intel at the top of the page.

— SOURCES OF VALUE —

We believe the Notebook Processors division is the most valuable segment within Intel for the following two reasons:

Growing Notebook Processors Market

We estimate that Intel had about 84% market share in the 177 million unit notebook market in 2011 compared to 74% market share in the 146 million unit desktop market. Besides the fact that Intel is simply selling more notebook processors than desktop processors today, the notebook market is expected to continue to grow over our forecast period whereas desktop sales are likely to remain more or less flat.

Profit per Notebook Processor Higher than Desktops

We estimate that Intel made $68 in profit (EBITDA) on average for each notebook microprocessor sold in 2011, which compares favorably to the $51 for each desktop microprocessor sold. Although server processors were the most profitable at an estimated $305 of profit per unit sold in 2011, that's about 4.5 times the profitability of notebook processors. But Intel's notebook processor unit sales for 2011 amounted to more than 8 times the unit sales for server processors.

— KEY TRENDS —

On-going server virtualization
Server virtualization is essentially server consolidation that enables the running of multiple applications on a single server instead of on multiple servers. Server virtualization is driving a mix shift to higher-end servers, which requires multi-core processor servers that tend to be more complex and more expensive than traditional single core processors.

Shift from Desktops to Notebooks
The shift of consumer preference from desktops to laptops will continue as the performance and pricing gap between desktops and laptops narrows. We expect desktop market to more or less stagnate while notebooks will continue to grow, driven by demand from emerging markets.

Increasing Importance of Smartphone Chips
Smartphone sales have increased from about 139 million in 2008 to an estimated 435 million in 2011, as per estimates from market research firm Gartner. The growth rate in 2011 stood close to 50%. We expect smartphones to continue to grow and reach 1 billion mark by end of our forecast period. Improving mobile network speeds, growing awareness of smartphones, multiple options present in the market and innovation from smartphone manufacturers will continue to drive this growth. Intel has already entered this market with acquisition of Infineon's Wireless Solutions business.

Convergence of Graphics & Processing
AMD and Intel have moved away from the idea of integrated graphics. Intel's introduction of Sandy Bridge processors and AMD's launch of Llano essentially indicate that the future of integrated graphics is over. These chips pack GPU within the CPU leading to much better graphics performance than one can get from traditional integrated graphics.

Mobile Processing
This remains key area that is not yet reasonably explored by both Intel and AMD. Intel has been doing some work with its Atom processor and AMD is also looking to push into this market. Smartphone and tablets are likely to remain one of the key focus for Intel and AMD in 2012 and beyond.

PC market opening up to ARM
Windows 8 will be ARM-compatible and we will see ARM-based processor

manufacturers entering PC market which has traditionally been dominated by x86 processor architecture. This will challenge the dominance of Intel which is likely to lose some market share as a result.

See the Full Analysis for Intel on Trefis

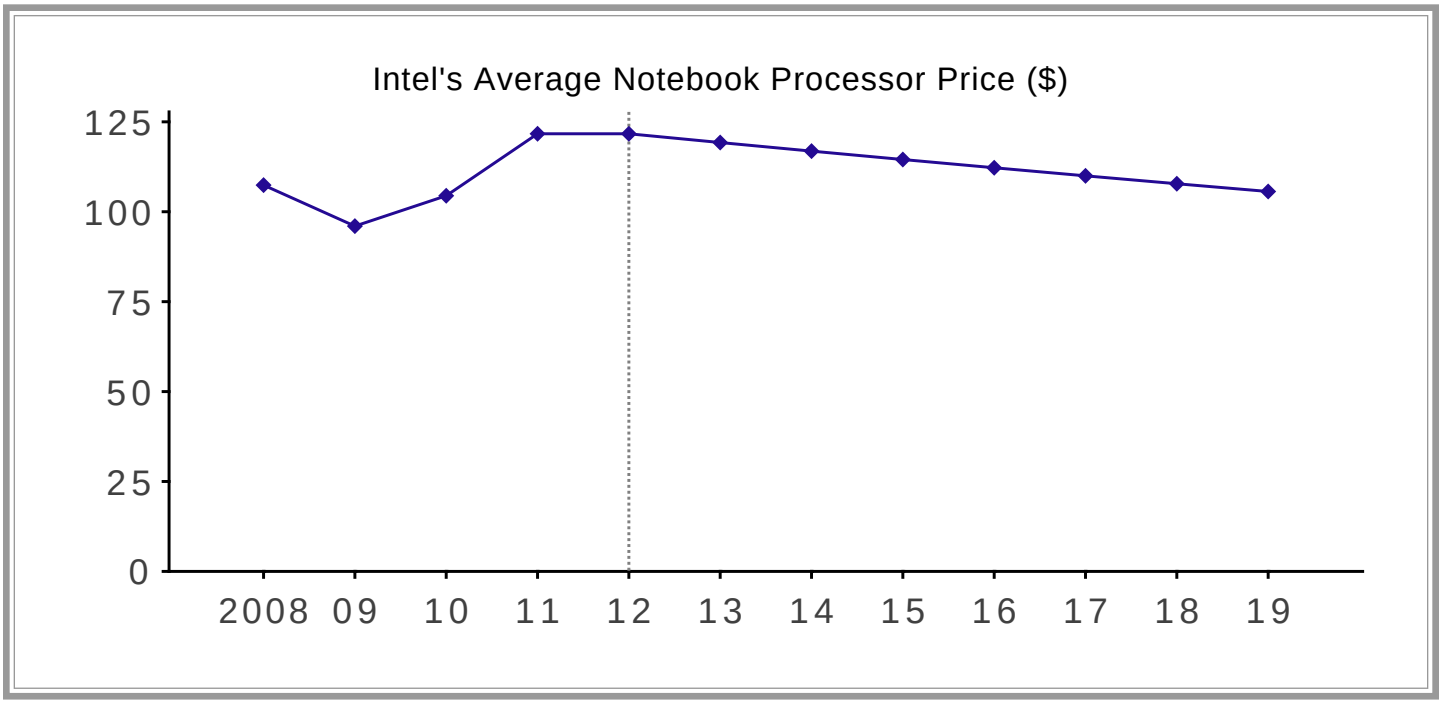
Notebook Processors

The Notebook Processors division constitutes 34.6% of our $31.94 price estimate for this stock, based on our sum of the parts analysis.The most important drivers for the Notebook Processors business are:

- Intel's Average Notebook Processor Price
- Intel's Notebook Processor Market Share
- Global Notebook Shipments
- Notebook Processors EBITDA Margin

— INTEL'S AVERAGE NOTEBOOK PROCESSOR PRICE —

Intel's Average Notebook Processor Price represents Intel's average selling price per notebook microprocessor. The average selling price represents the price at which Intel sells to PC companies such as DELL, HP and IBM.



Intel's Average Notebook Processor Price has picked up in past couple of years following a decline in 2008 and 2009. It came down from about $122 in 2007 to about $96 in 2009. In 2010 and 2011, there was sharp rise in average pricing due to improved economy that supported richer processor mix as well as launch of higher priced Sandy Bridge CPUs in 2011. Going forward, we expect Intel's Average Notebook Processor Price to remain more or less constant in 2012. However we expect a decline thereafter as competition from ARM-based microprocessor manufacturers intensifies.

Forecast Rationale

1. PRICE COMPETITION WITH AMD & ARM-BASED PLAYERS – AMD has typically targeted value segment and is expected to continue to do so. With global economic recovery under suspicion and consumers getting more cost conscious, we can potentially see a price competition in future. ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition that can push down the prices.
2. EMERGING MARKET GROWTH – An increasing share of notebooks is coming from emerging markets. In 2011, Intel's business in China, India and Indonesia grew by 15%, 22% and 37% respectively. China and India are big markets, with

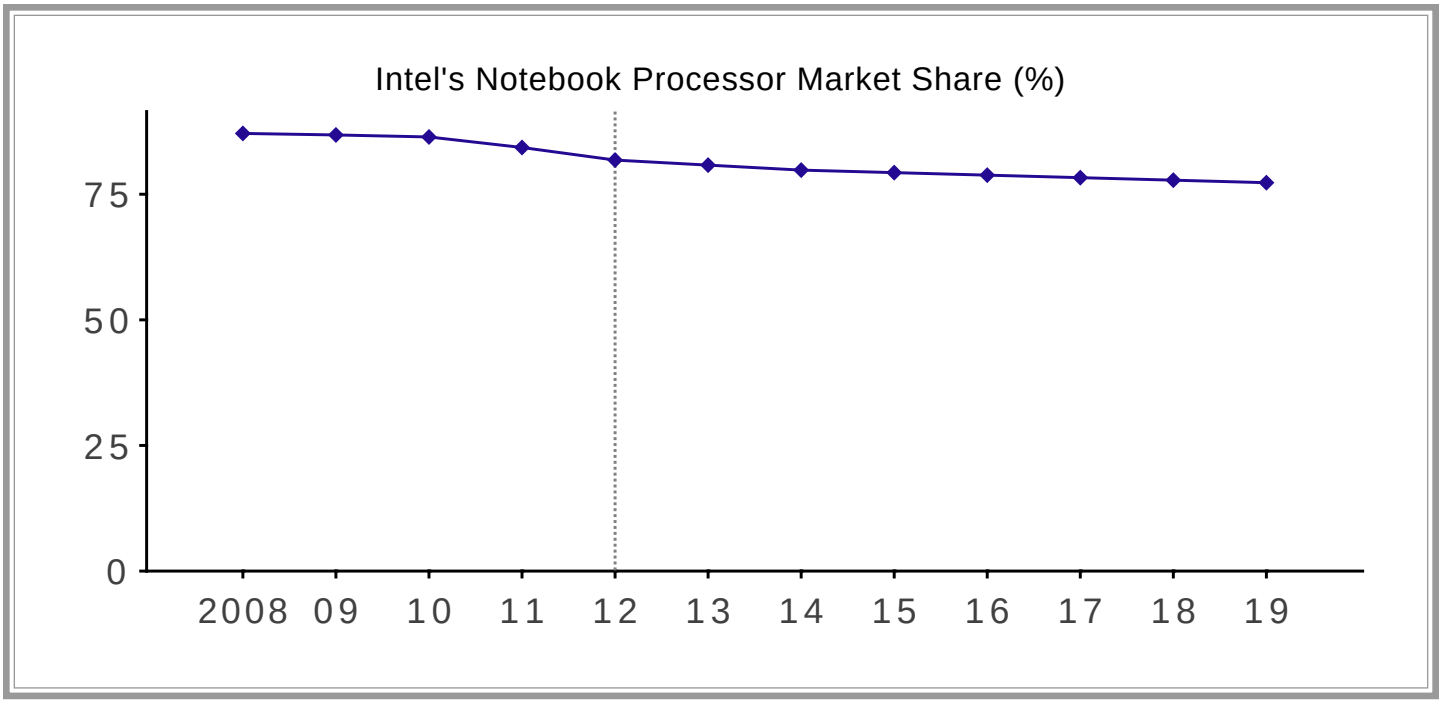
the former representing about 20% of global PC demand now. Increasing emerging market sales imply lower average microprocessor pricing. Although this logic was defied in 2011 as higher priced Sandy Bridge microprocessors more than compensated for it, and there were slight improvements in microprocessor mix for emerging markets.

3. COMPETITION FROM TABLETS CAN FORCE NOTEBOOK MANUFACTURERS TO PUSH DOWN PRICES – iPad sales have picked up in 2011 and the device is acting as a reasonable substitute for notebooks, especially low-end ones. More iPad like devices are expected to flood the market in 2012. We expect tablets to continue to cannibalize some PC sales despite Intel's attempt to revive the market with its ultra-books. As this happens, the PC market players will push the sales by not just innovation but also by cutting down the prices. This can further push the average microprocessor price down.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— INTEL'S NOTEBOOK PROCESSOR MARKET SHARE —

Intel's Notebook Processor Market Share represents Intel's share of microprocessors sold globally for use in notebooks.



Although Intel has has managed to retain a very large share of notebook microprocessor market, the figure has come down slightly since 2008 as AMD gained some ground. Going forward we expect the decline to continue as more players enter this market.

Forecast Rationale

Supporting Factors

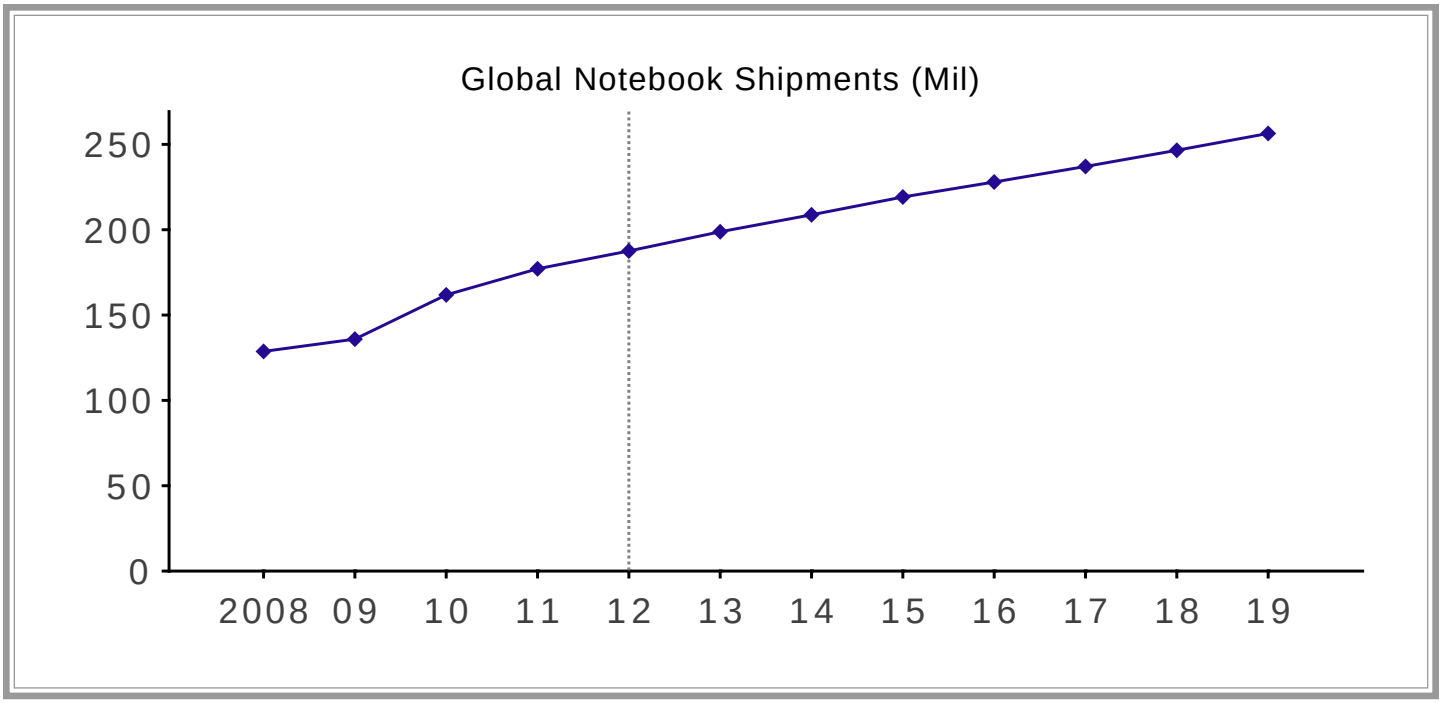
1. ARM-BASED PLAYERS ENTERING PC MICROPROCESSOR MARKET – ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition. As a result, Intel is bound to lose some share.
2. EMERGING MARKET GROWTH COULD FAVOR AMD – An increasing share of notebooks is coming from emerging markets. China now represents about 20% of global PC demand. The consumers in emerging markets have lower per capita income and thus, a lower buying power. They are likely to go for lower priced notebooks and that could favor AMD.

3. AMD'S BRAZOS ADOPTION – In its Q1 2011 earnings, AMD stated that its Brazos processors were getting good adoption in netbooks and thin/light notebooks segment. The company stated around mid-year 2011 that it has won about 300 design wins and most of the top notebook vendors were shipping products based on AMD's Brazos and Llano chips.
4. AMD is also introducing an alternative to Intel's ultrabook based on its Brazos platform. Intel's ultrabook is expensive and AMD will look to gain some share with its price advantage.
   Mitigating Factor
5. INTEL DOMINATES NOTEBOOKS PROCESSORS – Most high-end notebooks are based on Intel's processors. The "Intel inside" brand provides Intel the added price premium in the marketplace. Intel has consitently left AMD behind in terms of process technology, and has already announced that it intends to increase its capital spending in 2012 to build factory for 14-nm process technology.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— GLOBAL NOTEBOOK SHIPMENTS —

Global Notebook Shipments represents the number of notebooks units sold each year globally.



Historically notebooks have seen increased growth due to its increasing processing power combined with wireless Internet technologies which made them an attractive choice for many consumers. Notebook units sales have increased from 108 million units in 2007 to close to 177 million units in 2011. We expect the growth to slightly slowdown due to increased competition from tablets.

Forecast Rationale

Supporting:

1. NOTEBOOKS ARE GROWING IN EMERGING MARKETS – An increasing share of notebooks is coming from emerging markets. In 2011, Intel's business in China, India and Indonesia grew by 15%, 22% and 37% respectively. China and India are big markets, with the former representing about 20% of global PC demand now.

2. INCREASING SHIFT FROM DESKTOPS TO NOTEBOOKS – There has been a significant shift from desktops to notebooks in the last few years with Q3 08 seen as the inflection point when notebook shipments outpaced desktop shipments heralding the advent of notebooks in a big way . We expect this shift to continue and aid in notebook sales. One of the reasons notebooks are gaining increasing popularity over desktops is that their size allows consumers the convenience and flexibility to move.

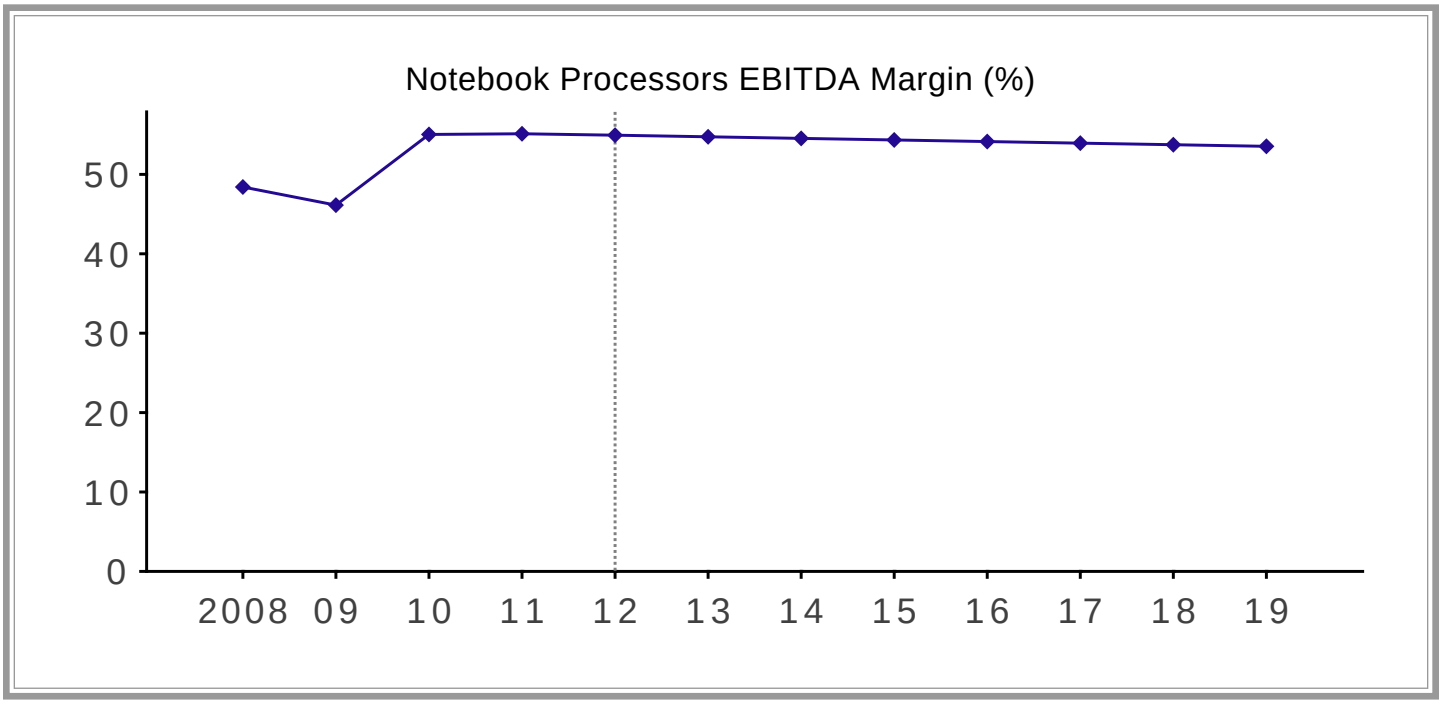
Mitigating:

3. COMPETITION FROM TABLETS – In near future, we expect notebooks to continue to grow due to demand from emerging markets. However as tablets pick up across the world, notebook shipment growth is likely to slowdown.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— NOTEBOOK PROCESSORS EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Notebook Processors EBITDA Margin improved significantly in 2010 and stood at 55%. In 2011 this figure further increased slightly to 55.1%. Intel's savings with newer process technology and average selling price improvement have helped. However, we expect this figure to slightly decline in future as competition picks up.

Forecast Rationale

Supporting:

1. STARTUP COSTS RELATED TO 14NM PRODUCT MANUFACTURING WILL WEIGH ON MARGINS IN NEAR TERM.
2. ENTRANCE OF ARM-BASED PLAYERS IN PC MICROPROCESSOR MARKET IS LIKELY TO LEAD TO SOME PRICE COMPETITION AND SHRINKING OF MARGINS.

Mitigating:

3. Average selling price support from higher priced Sandy Bridge chips is likely to continue to aid Intel. Intel is also launching next-in-line Ivy Bridge processors in 2012.
4. Intel is eyeing on 14-nm process technology and plans to build factories for the same in 2012. Once its chips transition to this technology, the resulting savings will support current high margins.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	12.0	11.3	14.6	18.2	18.7	19.2	19.5	19.9	20.2	20.4	20.7	20.9
Direct Expense (Bil $)	6.21	6.10	6.57	8.15	8.41	8.67	8.85	9.09	9.25	9.40	9.57	9.73
Indirect Expense (Bil $)	3.66	3.55	4.16	5.16	6.76	6.33	5.96	5.95	5.93	6.06	6.14	6.21
Adjusted EBITDA (Bil $)	5.83	5.22	8.03	10.0	10.3	10.5	10.6	10.8	10.9	11.0	11.1	11.2
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	3.49	4.16	4.66	4.86	4.98	4.95	4.97	5.00

In addition, you can see the detailed P&L for the Notebook Processors business in the Appendix (link)

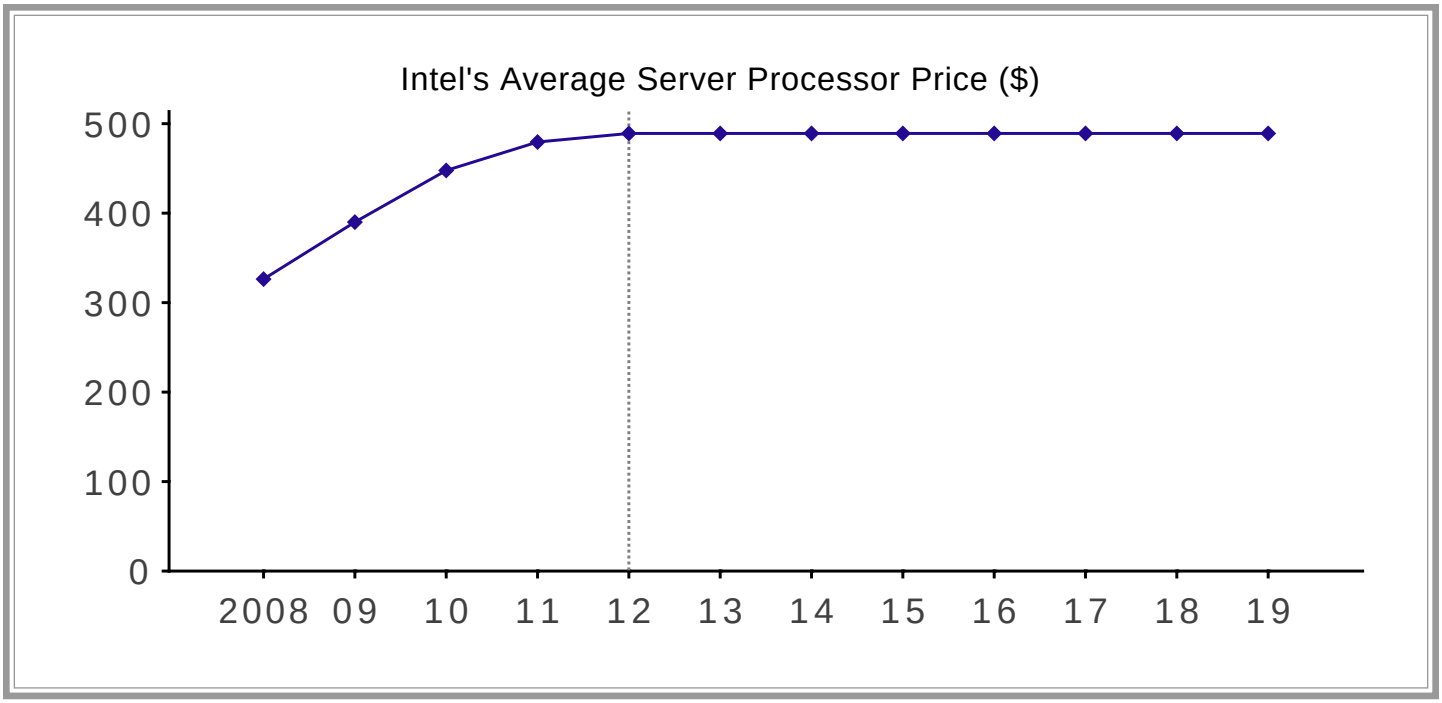
Server Processors

The most important drivers for the Server Processors business are:

- Intel's Average Server Processor Price
- Intel's Server Processor Market Share
- Global Server Shipments
- Microprocessors per Server
- Server Processors EBITDA Margin

— INTEL'S AVERAGE SERVER PROCESSOR PRICE —

Intel's Average Server Processor Price represents Intel's average selling price per server microprocessor. This represents the price at which Intel sells to server companies such as HP, DELL, IBM, and Sun.



Intel's Average Server Processor Price increased from approximately $319 in 2007 to close to $480 in 2011. We expect Intel's Average Server Processor Price to increase slightly in 2012 and stabilize thereon.

Forecast Rationale

Supporting:

1. SERVER VIRTUALIZATION IS DRIVING A MIX SHIFT TO HIGHER-END SERVERS – Server virtualization is essentially server consolidation which enables the running of multiple applications on a single server instead of on multiple servers. The primary benefit of virtualization is reduced cost of hardware, electricity and service cost. Server virtualization requires multi-core processor servers, which tend to be more complex and more expensive than traditional single core processors.

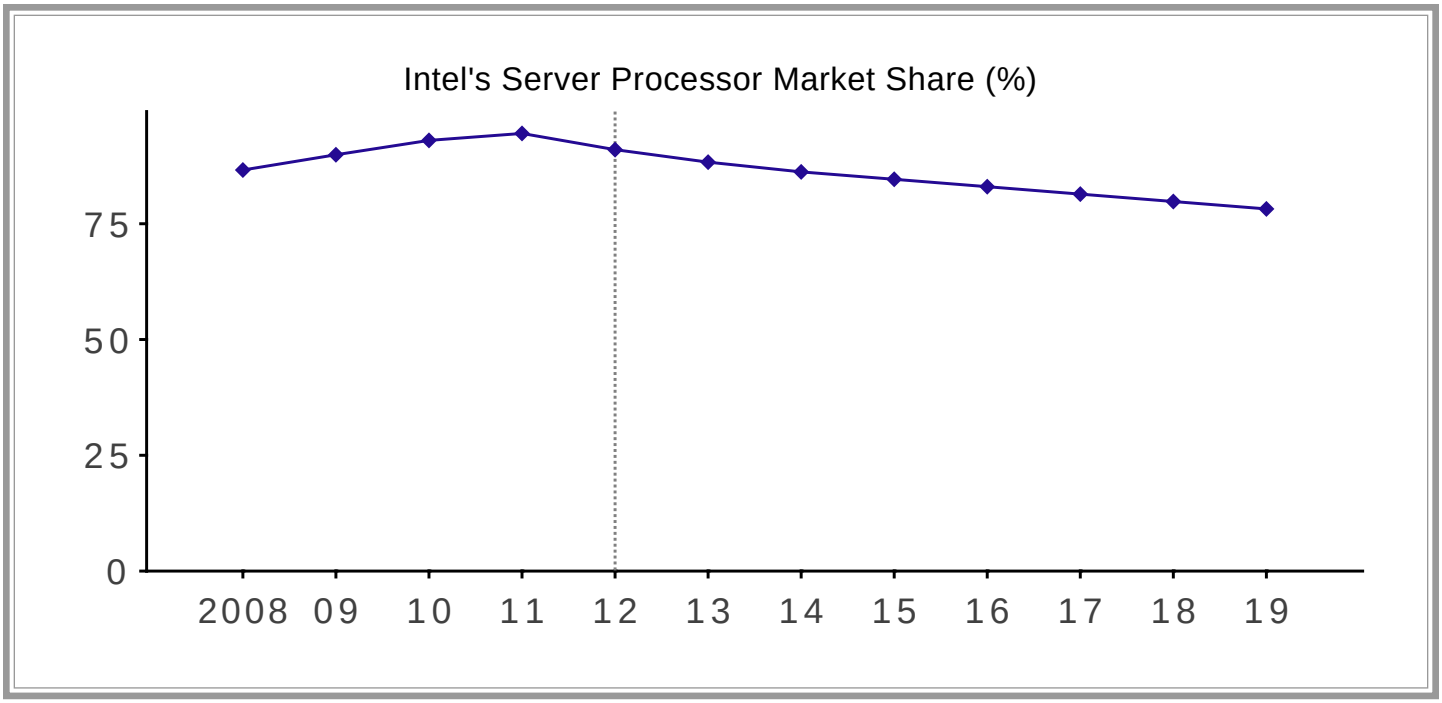
Mitigating:

2. ENTRY OF ARM-BASED PLAYERS – ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition that can push down the prices. ARM-based processors will not only appear in PCs, but also servers.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— INTEL'S SERVER PROCESSOR MARKET SHARE —

Intel's Server Processor Market Share represents Intel's share of microprocessors sold globally for use in servers.



Intel's Server Processor Market Share has increased from about 85% in 2007 to close to 94.5% in 2011. After losing share to AMD several years back, Intel has steadily regained it. However going forward we expect Intel to start losing its share in server processor market again.

Forecast Rationale

Supporting:

1. AMD LOOKING TO REGAIN SHARE – AMD is looking to regain server market share with its new chips based on Interlagos design and priced between $125 and $1,019. As usual, AMD is playing value-for-money card by claiming 55% higher performance compared to equivalently priced Intel's server processors.
2. ENTRY OF ARM-BASED PLAYERS IN SERVER MARKET – ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition that can erode Intel's market share. ARM-based processors will not only appear in PCs, but also in servers.

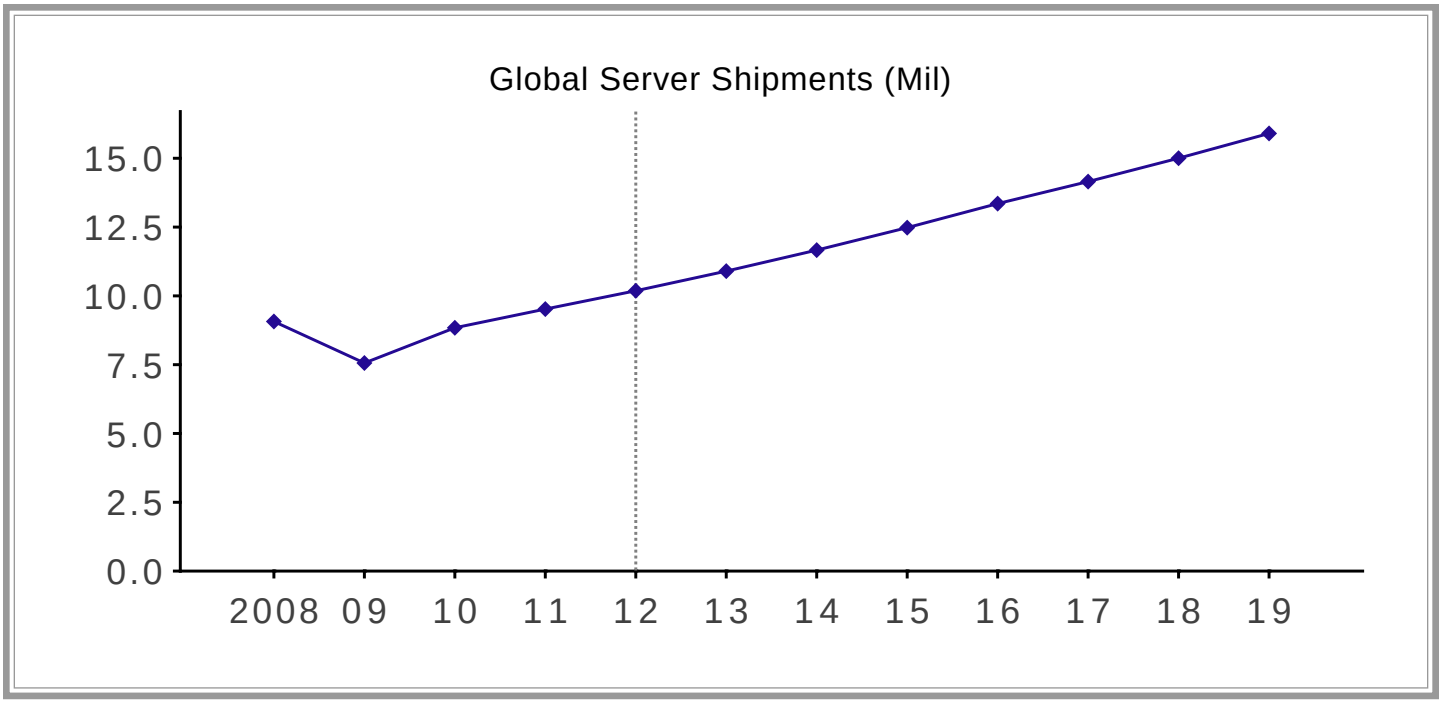
Mitigating:

3. INTEL HAS BOUNCED BACK WITH ITS XEON PROCESSORS AFTER HUGE LOSS OF MARKET SHARE IN 2006 – AMD rapidly gained market share in the early decade when it introduced its Opteron series of processors which were much power efficient compared to what Intel was providing at that time. However, Intel regained much of its lost market share following its introduction of Xeon 5100 in 2006. Importantly, AMD's loss was compounded when it was late with its Barcelona chip in 2008. Intel continues to gain share and reports by IDC reveal that Intel's market share in sever processors had steadily increased from Q1 2011 to Q3 2011.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— GLOBAL SERVER SHIPMENTS —

Global Server Shipments refers to the total number of servers sold globally by all manufacturers.



Global Server Shipments decreased from about 9.07 million in 2008 to 7.56 million in 2009 as a result of economic slowdown and reduction in IT spending across the globe. However, the market has recovered since then amounting to an estimated 9.52 million in 2011. We expect this figure to continue to grow at an average rate of 6-7% till the end of our forecast period.

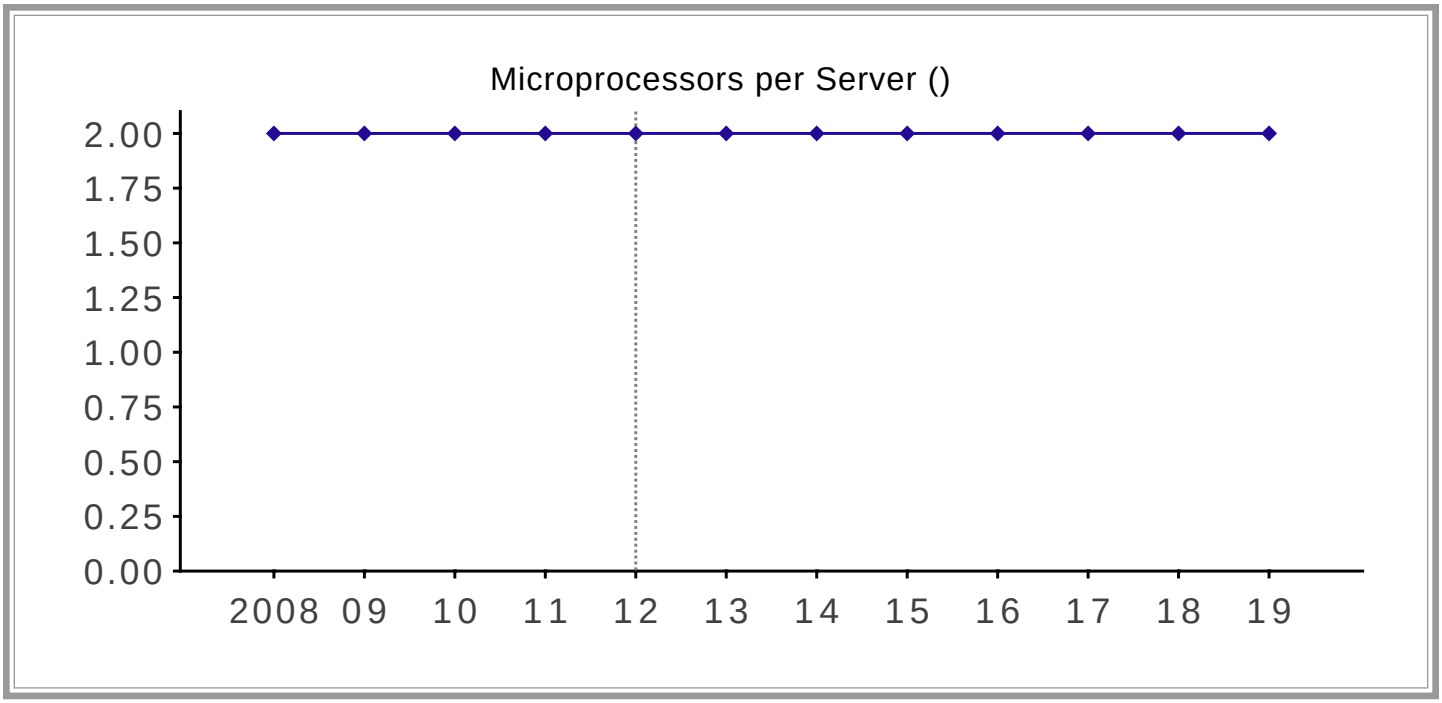
Forecast Rationale

1. GROWTH IN CLOUD COMPUTING – Growth in cloud computingwill result in greater sales of bigger, faster, and higher-end servers at the expense of cheaper ones. This can potentially slow down future upgrades, and ultimately moderate growth in total shipments when compared to historical growth rates.
2. SERVER VIRTUALIZATION / CONSOLIDATION DRIVING NEED FOR NEWER SERVERS TO REPLACE OLDER ONES – Server virtualization is essentially server consolidation which enables the running of multiple applications on a single server instead of on multiple servers. The primary benefit of virtualization is reduced cost of hardware, electricity, and service. Server virtualization requires multi-core processor servers, which tend to be more complex and more expensive than traditional single-core processors.
3. DATA INTENSIVE COMPUTING IS CONSTANTLY INCREASING THE NEED FOR FASTER, BETTER SERVERS – If we look at the past data, we find that TFlops purchased by Wall Street Accounts went up from 470 TFlops in 2006 to 3400 TFlops in 2007 (a 623% increase in 1 calendar year). The data processing requirement is increasing every day as more and more content moves to internet, corporations use intensive data analytics to make decisions, and storage requirements increase.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— MICROPROCESSORS PER SERVER —

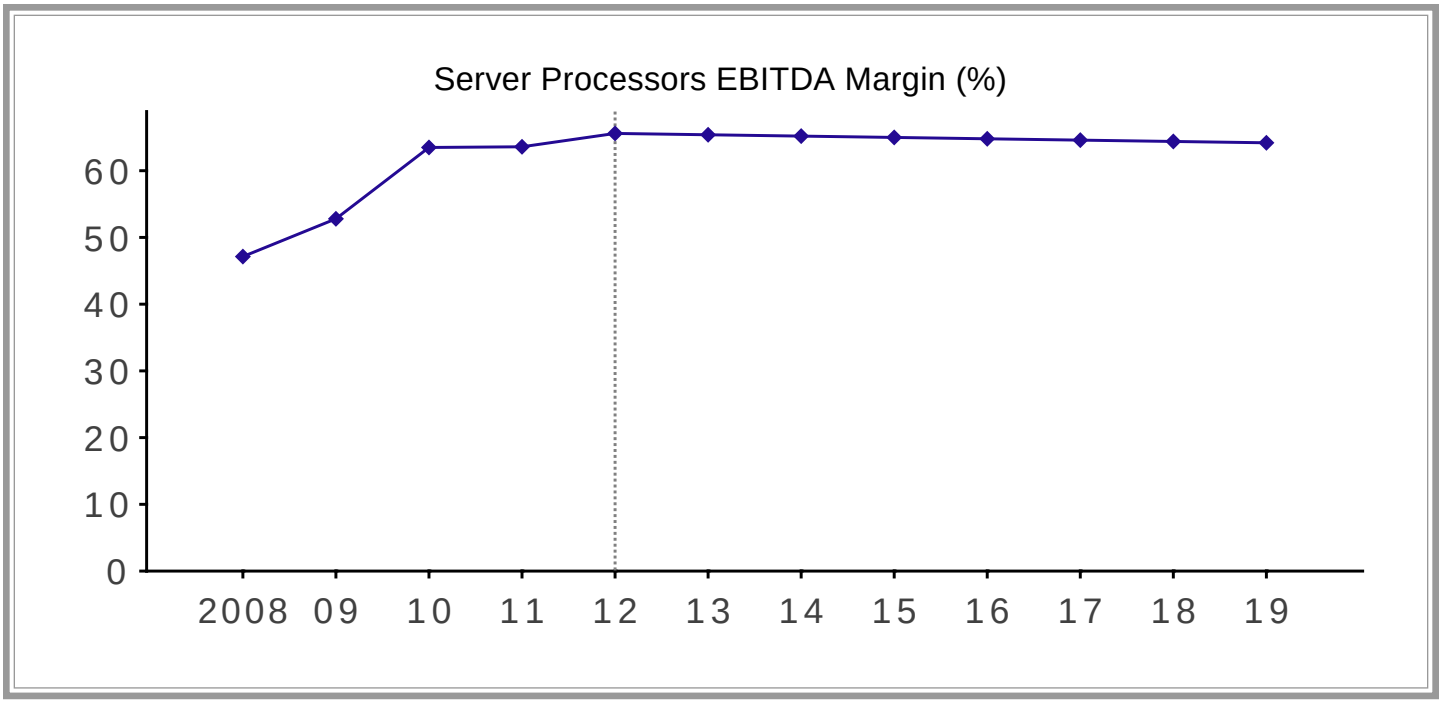
Microprocessors per Server refers to the number of microprocessors that are used on average inside a typical server.



Going forward, we estimate no change in number of microprocessors per server from the historical number of 2 microprocessors per server.
Sources for historical data and explanations can be found on the Trefis.com website (link)

— SERVER PROCESSORS EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA Margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Server Processors EBITDA Margin has increased from 47.8% in 2007 to 63.6% in 2011. We expect the margins to stay around current levels. Intel's savings with newer process technology and average selling price improvement have helped. However, we expect this figure to slightly decline in future as competition picks up.

Forecast Rationale

Supporting:

1. STARTUP COSTS RELATED TO 14NM PRODUCT MANUFACTURING WILL WEIGH ON MARGINS IN NEAR TERM.
2. ENTRANCE OF ARM-BASED PLAYERS IN SERVER MICROPROCESSOR MARKET IS LIKELY TO LEAD TO SOME PRICE COMPETITION AND SHRINKING OF MARGINS.

Mitigating:

3. AVERAGE SELLING PRICE SUPPORT FROM SANDY BRIDGE CHIPS IS LIKELY TO HELP. THESE CHIPS HAVE REGISTERED STRONG EARLY DEMAND. THESE CHIPS ARE NOT JUST FOR CONSUMER PCS, BUT FOR SERVERS AS WELL.
4. INTEL IS EYEING ON 14-NM PROCESS TECHNOLOGY AND PLANS TO BUILD FACTORIES FOR THE SAME IN 2012. ONCE ITS CHIPS TRANSITION TO THIS TECHNOLOGY, THE RESULTING SAVINGS WILL SUPPORT CURRENT HIGH MARGINS.
5. SERVER VIRTUALIZATION IS EXPECTED TO DRIVE MIX SHIFT TOWARDS HIGHER-END SERVERS.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	5.13	5.30	7.36	8.63	9.07	9.41	9.83	10.3	10.8	11.3	11.7	12.2
Direct Expense (Bil $)	2.71	2.50	2.69	3.14	3.12	3.26	3.42	3.62	3.82	3.99	4.17	4.36
Indirect Expense (Bil $)	1.52	1.90	2.42	2.83	3.92	3.71	3.60	3.69	3.82	4.00	4.17	4.32
Adjusted EBITDA (Bil $)	2.42	2.80	4.67	5.49	5.95	6.16	6.41	6.71	7.02	7.28	7.54	7.81
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	2.03	2.44	2.81	3.02	3.21	3.27	3.37	3.48

In addition, you can see the detailed P&L for the Server Processors business in the Appendix (link)

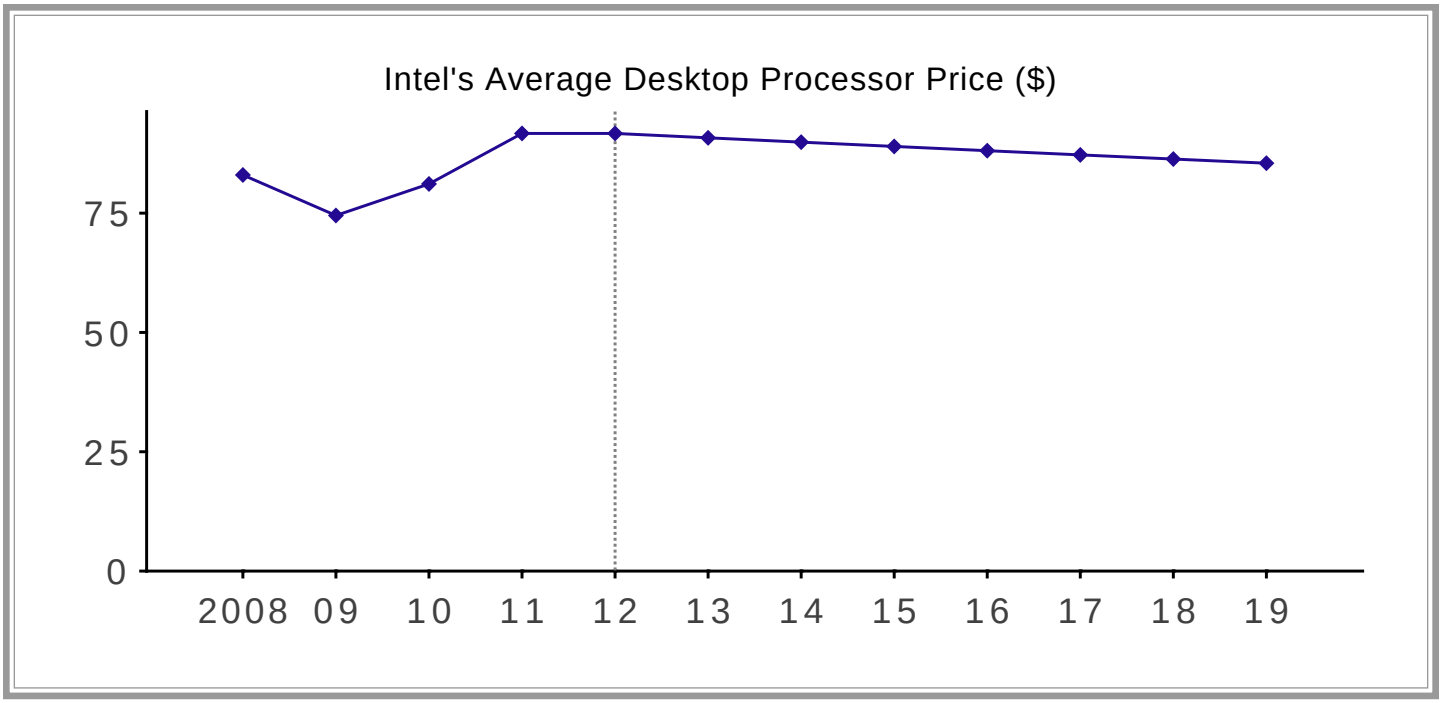
Desktop Processors

The most important drivers for the Desktop Processors business are:

- Intel's Average Desktop Processor Price
- Intel's Desktop Processor Market Share
- Global Desktop Shipments
- Desktop Processor EBITDA Margin

— INTEL'S AVERAGE DESKTOP PROCESSOR PRICE —

Intel's Average Desktop Processor Price represents Intel's average selling price per desktop microprocessor. This figure represents the price at which Intel sells to PC companies such as DELL, HP, and IBM.



Following initial declines, Intel's Average Desktop Processor Price has increased from about $83 in 2008 to close to $92 in 2011 aided by improved processor mix and introduction of Sandy Bridge chips. We expect the price to remain constant in 2012. However post that, we expect the prices to decline slightly.

Forecast Rationale

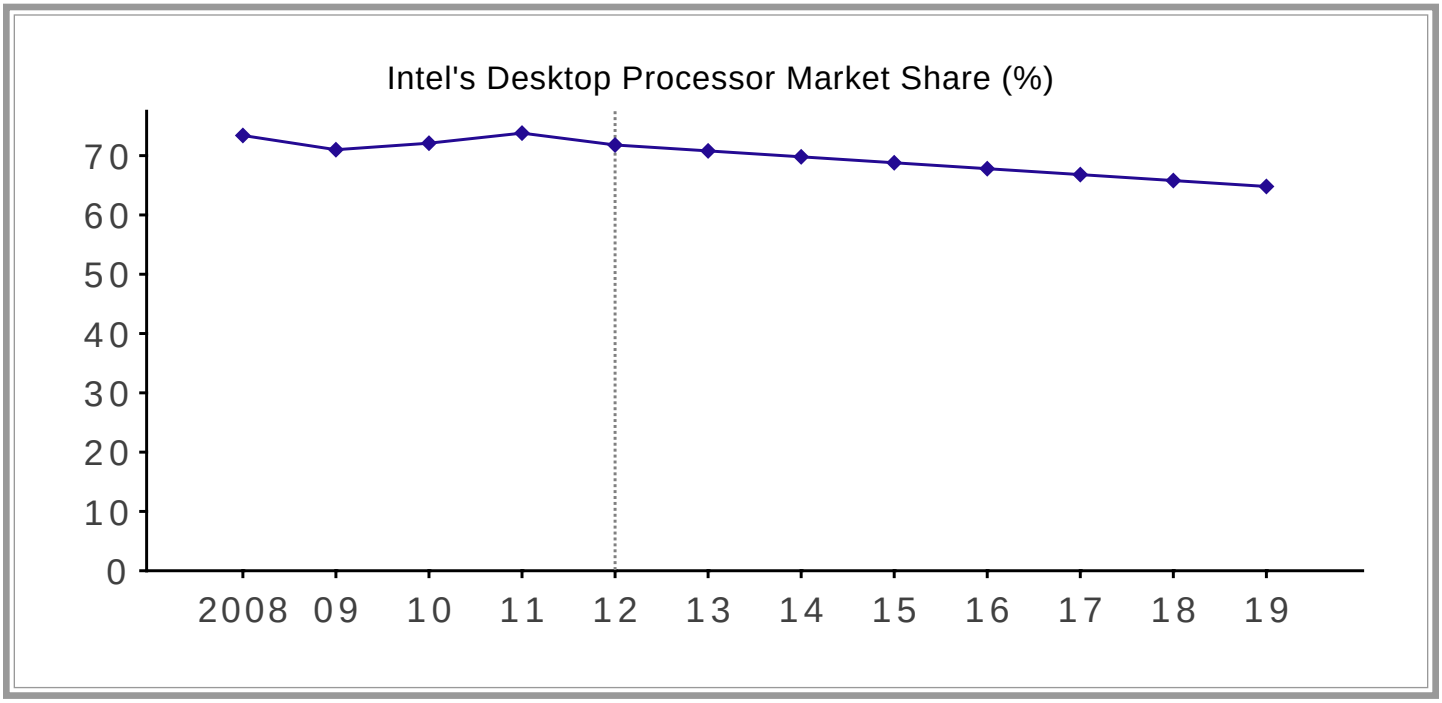
1. PRICE COMPETITION WITH AMD AND ARM-BASED PLAYERS – AMD has typically targeted value segment and is expected to continue to do so. With global economic recovery under suspicion and consumers getting more cost conscious, we can potentially see a price competition in future. ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition that can push down the prices.

2. DECLINING COST OF HARDWARE, MOORE'S LAW TO CONTINUE – Moore's law describes a long-term trend in the history of computing hardware. Moore's Law states that the number of transistors on a given chip can be doubled every two years. It has been the guiding principle of progress in electronics and computing since Gordon Moore (Intel's co-founder) first formulated the famous dictum in 1965. The price per transistor on a chip has dropped dramatically in the last 40 years and the continuation of this trend would imply that one can expect hardware prices to further decline over the next 5 years.
3. GLOBAL TREND TOWARDS NOTEBOOK PCS / MOBILE COMPUTING REDUCING DESKTOP MICROPROCESSOR DEMAND – Global notebook shipments continue to ship at a fast rate, while desktop shipments have started to witness decline. Notebooks are smaller and offer greater flexibility of use and convenience. Q3 08 was an inflection point when notebook shipments outpaced desktop shipments for the first time. Moreover, netbooks and tablets are further expected to replace desktops.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— INTEL'S DESKTOP PROCESSOR MARKET SHARE —

Intel's Desktop Processor Market Share represents Intel's share of microprocessors sold globally for use in desktop PCs.



AMD gained almost 10 points of market share from Intel between 2004 and 2007 based on the following:

AMD, by launching its 64 bit Opteron microprocessor in 2004, took an early lead in the 64-bit computing, as its microprocessors were backward compatible with 32-bit operating systems. Intel had adopted a different approach, as its 64 bit processor was not compatible with a 32 bit OS. In a tough economic environment following the dot-com bubble, enterprises and consumers didn't want to upgrade to a 64 bit OS. Also, AMD had an integrated memory controller in its microprocessors, which led to superior performance.

As a result, Intel's Desktop Processor Market Share has decreased from 79.2% in 2005 to 73.8% in 2011. Intel's share has been relatively stable in last few years but we expect it to decline in future.

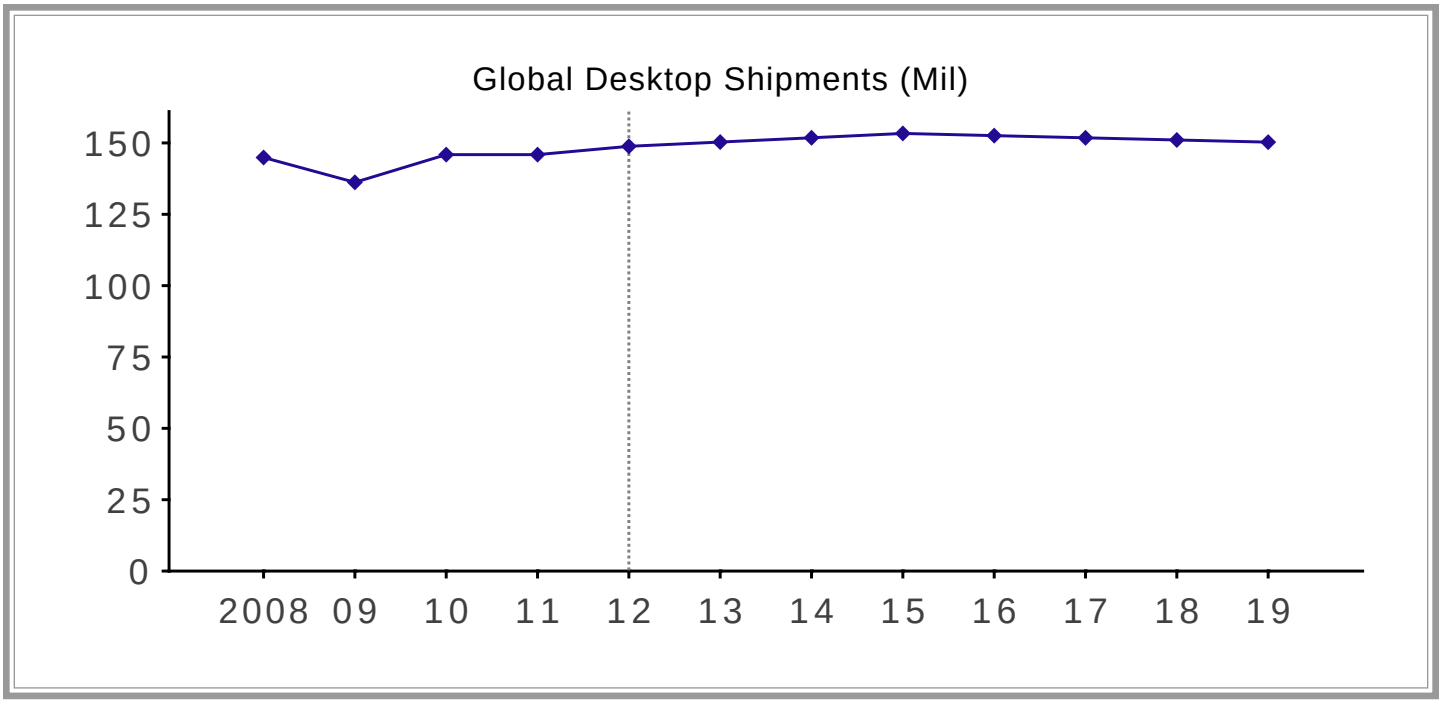
Forecast Rationale

1. ARM-BASED PLAYERS ENTERING PC MICROPROCESSOR MARKET – ARM-based players are likely to enter PC microprocessor market in 2012, and the market will become more crowded leading to more competition. As a result, Intel is bound to lose some share. Nvidia is one of the players expected to enter CPU arena with its ARM-based chips by 2013 and could give some competition. This will pose additional competition for Intel and the company might lose some share points.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— GLOBAL DESKTOP SHIPMENTS —

Global Desktop Shipments represents the number of desktop units sold each year globally.



Global desktop units sales decreased from 151 million units in 2007 to 136 million units in 2009. However, this figure improved in 2010 amounting to 146 million as a result of global economic recovery and stayed flat at 146 million for 2011 as well.

Going forward we expect slight improvement in desktop unit sales followed by decline in later years.

Forecast Rationale

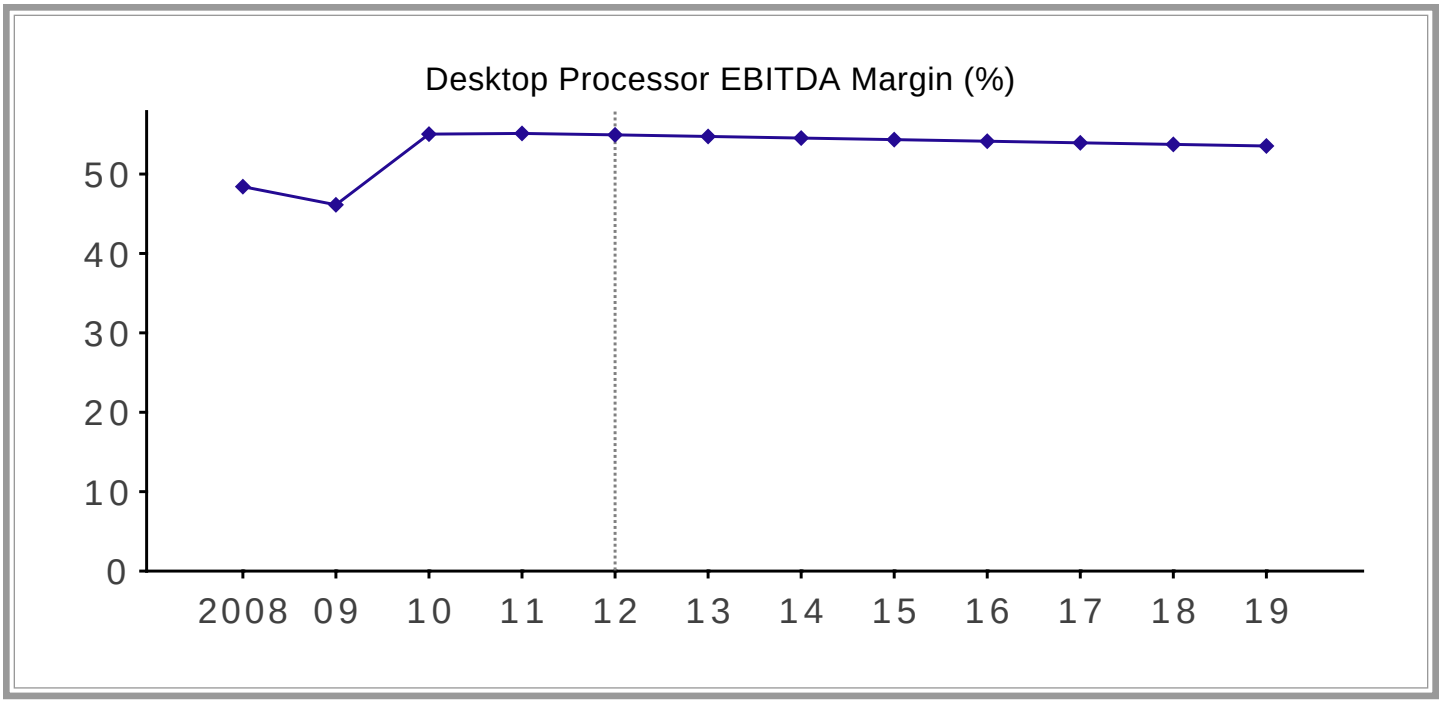
1. EMERGING MARKET GROWTH CAN HELP – As developed markets show signs of slowdown, emerging markets are offering some hope. In 2011, Intel's business in China, India and Indonesia grew by 15%, 22% and 37% respectively. China and India are big markets, with the former representing about 20% of global PC demand now. Growth in emerging markets can compensate, to an extent, for weakening demand for desktops in developed markets.
2. SHIFT FROM DESKTOPS TO NOTEBOOKS REDUCING DESKTOP DEMAND – There has been a significant shift from desktops to notebooks in the last few years. Q3 08 was the inflection point when notebook shipments outpaced desktop shipments for the first time. Notebooks - smaller and convenient. One of the reasons notebooks are gaining increasing popularity over desktops is because of their size which allows consumers the convenience and flexibility to have a moving computer with them as against a desktop.

3. ADVENT OF NETBOOKS & TABLETS – The advent of netbooks and mini notebooks at prices starting at $200 is giving consumers a very economical and convenient option and this should hurt the growth in desktop shipments in future. Notebooks are now being replaced by tablets. Their popularity has risen meteorically, led by Apple's iPad.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— DESKTOP PROCESSOR EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Desktop Processor EBITDA Margin improved significantly in 2010 and stood close to 55%in 2010 and 2011.

Intel's savings with newer process technology and average selling price improvement have helped the increase in margins. However, as competition picks up, we expect this figure to slightly decline in future.

Forecast Rationale

Supporting:

1. STARTUP COSTS RELATED TO 14NM PRODUCT MANUFACTURING WILL WEIGH ON MARGINS IN NEAR TERM.
2. ENTRANCE OF ARM-BASED PLAYERS IN PC MICROPROCESSOR MARKET IS LIKELY TO LEAD TO SOME PRICE COMPETITION AND SHRINKING OF MARGINS.

Mitigating:

3. AVERAGE SELLING PRICE SUPPORT FROM HIGHER PRICED SANDY BRIDGE CHIPS IS LIKELY TO CONTINUE TO AID INTEL. INTEL IS ALSO LAUNCHING NEXT-IN-LINE IVY BRIDGE PROCESSORS IN 2012.
4. INTEL IS EYEING ON 14-NM PROCESS TECHNOLOGY AND PLANS TO BUILD FACTORIES FOR THE SAME IN 2012. ONCE ITS CHIPS TRANSITION TO THIS TECHNOLOGY, THE RESULTING SAVINGS WILL SUPPORT CURRENT HIGH MARGINS.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	8.83	7.21	8.53	9.87	9.80	9.66	9.52	9.39	9.11	8.84	8.58	8.32
Direct Expense (Bil $)	4.55	3.88	3.84	4.43	4.42	4.37	4.33	4.29	4.18	4.07	3.97	3.87
Indirect Expense (Bil $)	2.68	2.26	2.43	2.80	3.55	3.19	2.92	2.81	2.68	2.62	2.55	2.47
Adjusted EBITDA (Bil $)	4.27	3.32	4.70	5.44	5.38	5.29	5.19	5.10	4.93	4.77	4.61	4.46
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	1.83	2.10	2.28	2.29	2.25	2.15	2.06	1.99

In addition, you can see the detailed P&L for the Desktop Processors business in the Appendix (link)

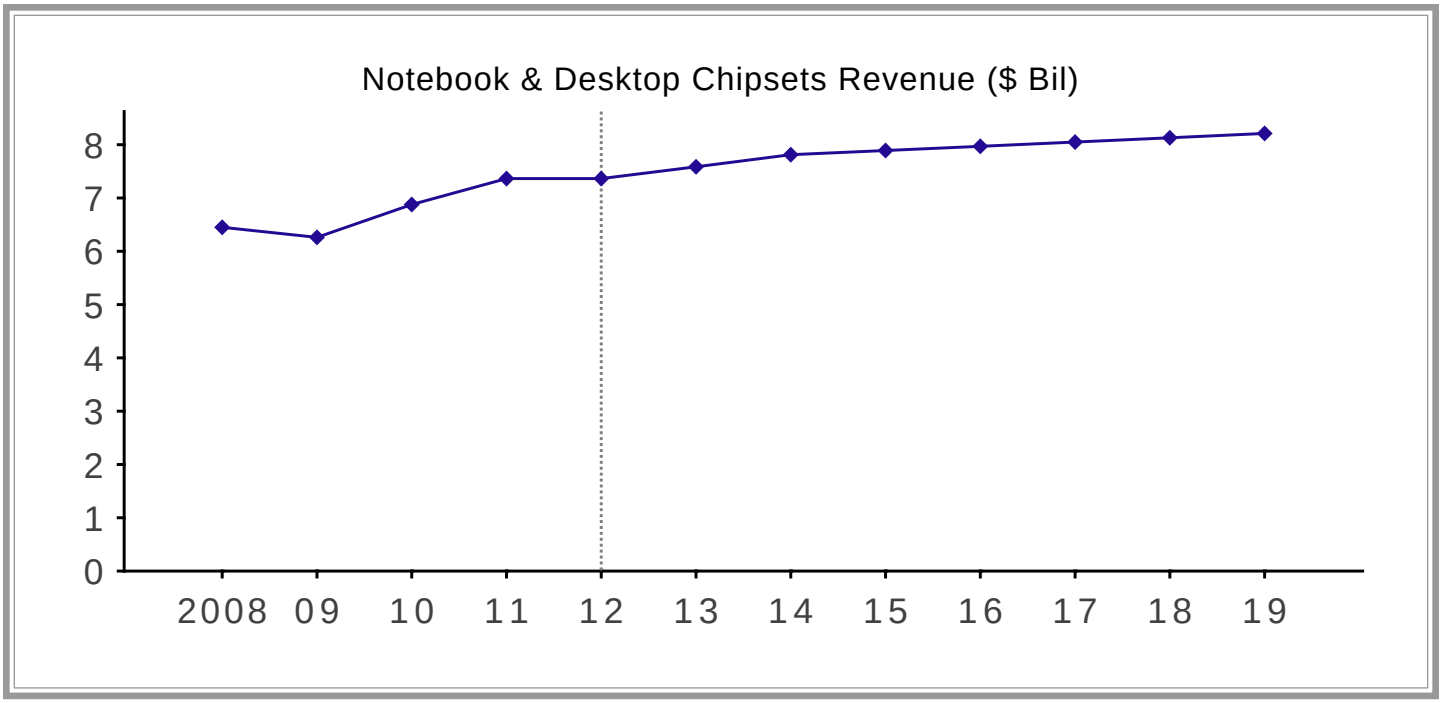
Notebook & Desktop Chipsets

The most important drivers for the Notebook & Desktop Chipsets business are:

- Notebook & Desktop Chipsets Revenue
- Notebook & Desktop Chipsets EBITDA Margin

— NOTEBOOK & DESKTOP CHIPSETS REVENUE —

Notebook & Desktop Chipsets Revenue represents revenue Intel derives from the sale of chipsets for notebooks & desktops.



Notebook & Desktop Chipsets Revenue grew from $6.08 billion in 2007 to $7.36 billion in 2011. Going forward, we expect the growth to continue in-line with growth in revenues for desktop and notebook microprocessors.

Forecast Rationale

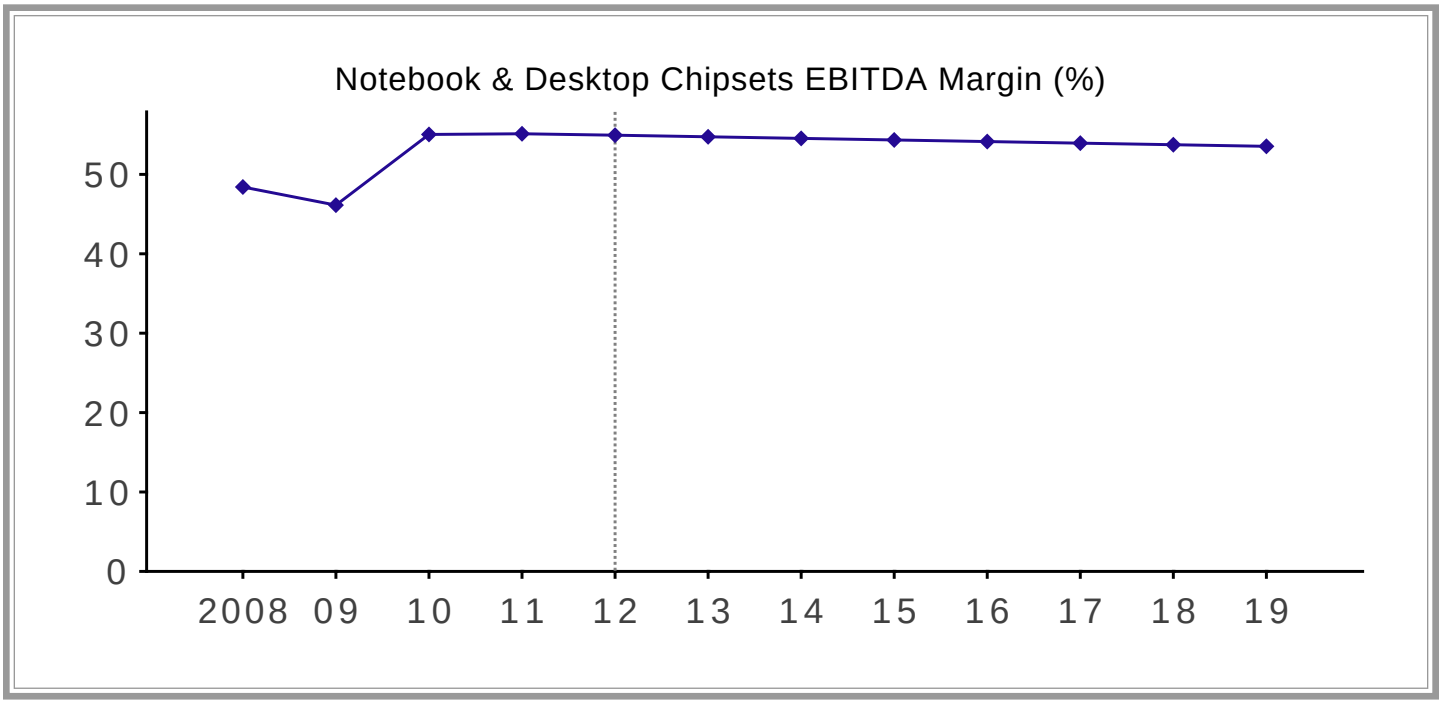
Trefis considered following factors for its forecast

1. GROWTH IN PC SHIPMENTS – Although threat from economic uncertainty and cannibalization by tablets exists, we expect that total PC (notebooks & desktops) shipments will still register growth driven by demand from emerging markets. As more players enter PC market, there should be more innovation and price competition which can further stimulate the demand. As PC shipments grow, Intel's notebook & desktop chipset revenues will register growth as well
2. CORRELATION WITH NOTEBOOK & DESKTOP MICROPROCESSOR REVENUES – Historically, revenues from notebook & desktop chipsets have stood at around 30% of PC (notebook & desktop) microprocessor revenues. For 2011, this figure declined to about 25% as launch of Sandy Bridge processors and improved mix led to higher average microprocessor prices for desktops and notebooks, thus lifting processor sales. Going forward we expect this ratio to remain around current levels.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— NOTEBOOK & DESKTOP CHIPSETS EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Notebook & Desktop Chipsets EBITDA Margin improved significantly in 2010 and stood at 55% in 2010 and 2011. Intel's savings with newer process technology and average selling price improvement has contributed to an increase in margins.

However, as competition picks up, we expect this figure to slightly decline in future.

Forecast Rationale

Supporting:

1. Startup costs related to 14nm product manufacturing will weigh on margins in near term.
2. Entrance of ARM-based players in PC microprocessor market is likely to lead to some price competition and shrinking of margins.

Mitigating:

3. Intel is eyeing on 14-nm process technology and plans to build factories for the same in 2012. Once its chips transition to this technology, the resulting savings will support current high margins.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	6.45	6.26	6.88	7.36	7.36	7.58	7.81	7.89	7.97	8.05	8.13	8.21
Direct Expense (Bil $)	3.33	3.37	3.09	3.31	3.32	3.43	3.55	3.60	3.66	3.71	3.76	3.82
Indirect Expense (Bil $)	1.96	1.96	1.96	2.09	2.67	2.51	2.39	2.36	2.34	2.39	2.41	2.43
Adjusted EBITDA (Bil $)	3.12	2.89	3.78	4.06	4.05	4.15	4.26	4.29	4.31	4.34	4.37	4.40
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	1.38	1.65	1.87	1.93	1.97	1.95	1.96	1.96

In addition, you can see the detailed P&L for the Notebook & Desktop Chipsets business in the Appendix (link)

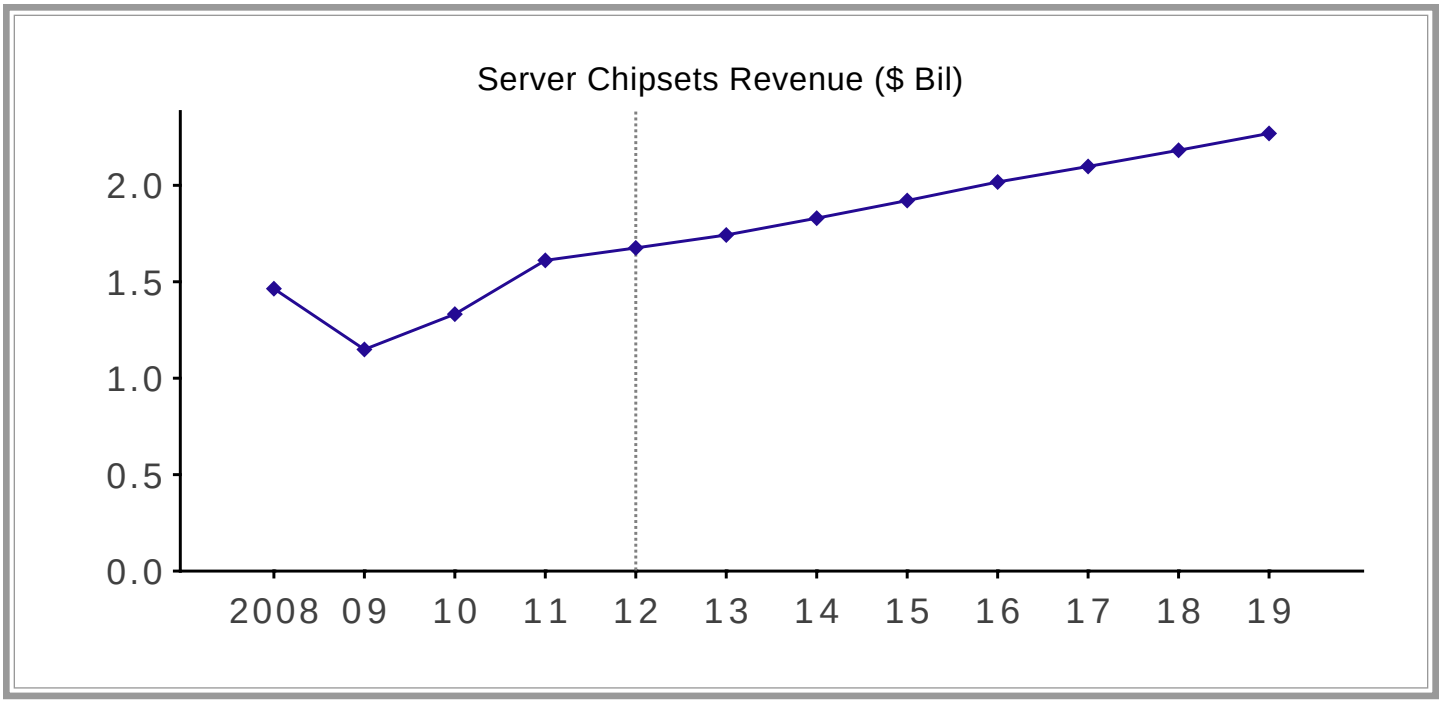
Server Chipsets

The most important drivers for the Server Chipsets business are:

- Server Chipsets Revenue
- Server Chipsets EBITDA Margin

— SERVER CHIPSETS REVENUE —

Server Chipsets Revenue represents revenue that Intel derives from sale of server releated chipsets and motherboards.



Server Chipsets Revenue has declined from close to $1.66 billion in 2007 to about $1.15 billion in 2009 as economic recession led to reduced IT spending by enterprises. However, this figure has been rising at a healthy rate for the past two years amounting to $1.61 billion in 2011. The revenue trends have somewhat followed global server shipment trends. Going forward we expect this figure to increase in-line with expected increase in server shipments.

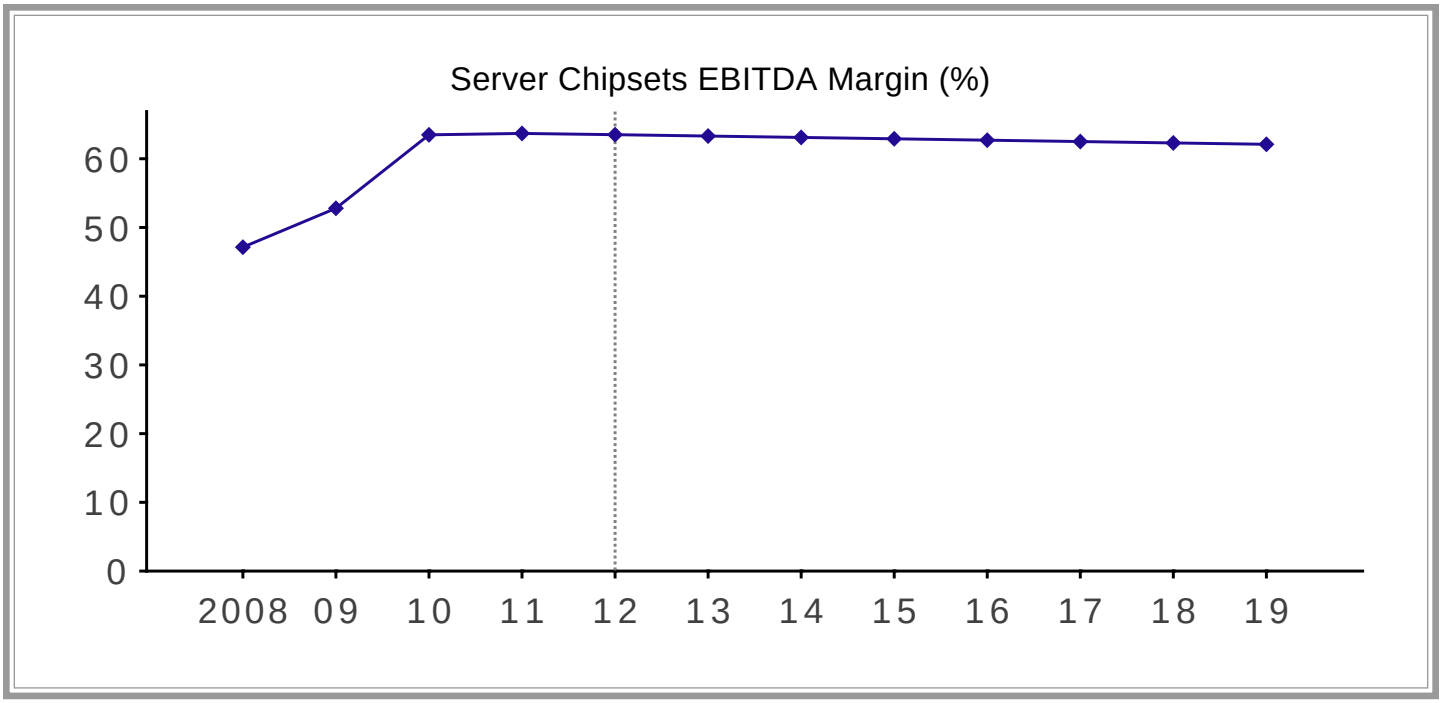
Forecast Rationale

1. GROWTH IN SERVER SHIPMENTS – Intel has seen tremendous growth in server market in 2010 and 2011. Apart from share gains, this was driven by rebound in server shipments and improving average selling prices. As server market continues to pay off for Intel, server related chips will drive the revenue growth.
2. CORRELATION WITH SERVER MICROPROCESSOR REVENUE – In 2007, server chipsets amounted to about 35% of server microprocessor revenues. This figure has declined since then as server microprocessors became more expensive based on higher performance and chipsets costs didn't rise in the same manner. In 2011 server chipsets amounted to 19% of server microprocessor revenues. This was a mild improvement over 2010 when this figure stood at 18%. Going forward we expect this ratio to remain around current levels as we expect average server microprocessor price to stabilize. Average server microprocessor price has seen significant rise in recent years but upcoming competition with ARM-based players will force the price rise to stabilize.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— SERVER CHIPSETS EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA Margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Server Chipsets EBITDA Margin are based on overall reported server related margins by Intel. The figure increased from 47.8% in 2007 to 63.7% in 2011. Intel's savings with newer process technology and average selling price improvement have helped increase margins.

We expect the margins to more or less stay around current levels for the rest of our forecast period, registering only a slight decline in future as competition picks up.

Forecast Rationale

Supporting:

1. STARTUP COSTS RELATED TO 14NM PRODUCT MANUFACTURING WILL WEIGH ON MARGINS IN NEAR TERM.
2. ENTRANCE OF ARM-BASED PLAYERS IN SERVER MICROPROCESSOR MARKET IS LIKELY TO LEAD TO SOME PRICE COMPETITION AND SHRINKING OF MARGINS.

Mitigating:

3. AVERAGE SELLING PRICE SUPPORT FROM SANDY BRIDGE CHIPS IS LIKELY TO HELP. THESE CHIPS HAVE REGISTERED STRONG EARLY DEMAND. THESE CHIPS ARE NOT JUST FOR CONSUMER PCS, BUT FOR SERVERS AS WELL.
4. INTEL IS EYEING ON 14-NM PROCESS TECHNOLOGY AND PLANS TO BUILD FACTORIES FOR THE SAME IN 2012. ONCE ITS CHIPS TRANSITION TO THIS TECHNOLOGY, THE RESULTING SAVINGS WILL SUPPORT CURRENT HIGH MARGINS.
5. SERVER VIRTUALIZATION IS EXPECTED TO DRIVE MIX SHIFT TOWARDS HIGHER-END SERVERS.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	1.46	1.15	1.33	1.61	1.68	1.74	1.83	1.92	2.02	2.10	2.18	2.27
Direct Expense (Mil $)	774	542	486	585	611	639	675	712	752	786	822	859
Indirect Expense (Mil $)	433	411	437	528	701	665	648	665	687	721	750	780
Adjusted EBITDA (Bil $)	0.69	0.61	0.85	1.03	1.06	1.10	1.15	1.21	1.26	1.31	1.36	1.41
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	362	437	506	543	577	589	608	628

In addition, you can see the detailed P&L for the Server Chipsets business in the Appendix (link)

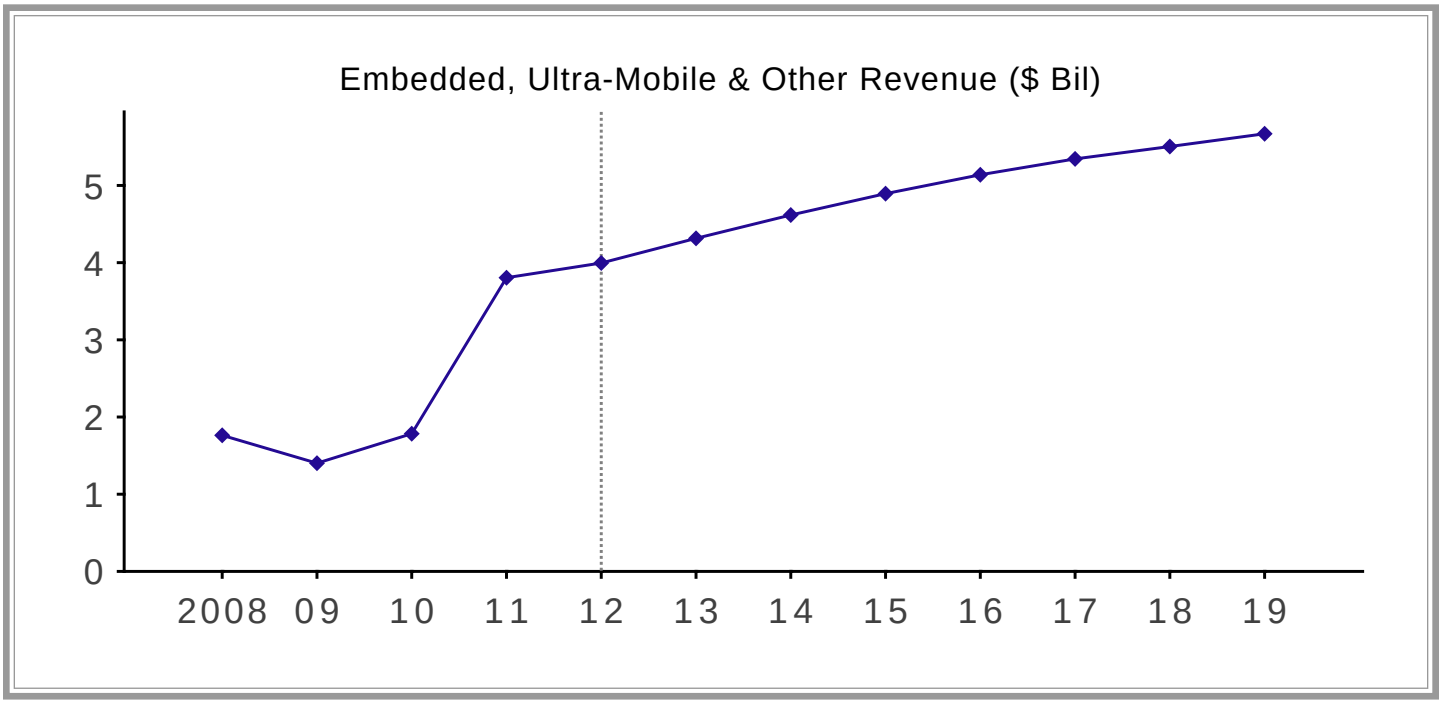
Embedded, Ultra-Mobile & Other

The Embedded, Ultra-Mobile & Other division is part of the Atom & Other Processors business, and constitutes 3.06% of our $31.94 price estimate for the stock, based on our sum of the parts analysis.The most important drivers for the Embedded, Ultra-Mobile & Other business are:

- Embedded, Ultra-Mobile & Other Revenue
- Embedded, Ultra-Mobile & Other EBITDA Margin

— EMBEDDED, ULTRA-MOBILE & OTHER REVENUE —

Embedded, Ultra-Mobile & Other Revenue refers to revenue from microprocessors and chipsets used in various embedded applications in variety of industries such as industrial and medical as well as from products for use in digital consumer devices such as digital TV, high-definition media players, cable modems and set-top boxes. This figure excludes Atom related revenues but includes revenue from Infineon.



Embedded, Ultra-Mobile & Other Revenue declined in 2008 and 2009 as a result of economic slowdown and business divestitures, but picked up in 2010 amounting $1.78 billion. This figure more than doubled to about $3.81 billion as a result of Infineon acquisition by Intel.

Going forward we expect the revenue growth to continue, albeit at a slower pace.

Forecast Rationale

Trefis considered following factor for its forecast.

1. GROWTH IN EMBEDDED DEVICES – Embedded devices are growing and their usage across multiple industries is increasing. According to Juniper Research, mobile-connected machine-to-machine and embedded devices revenue

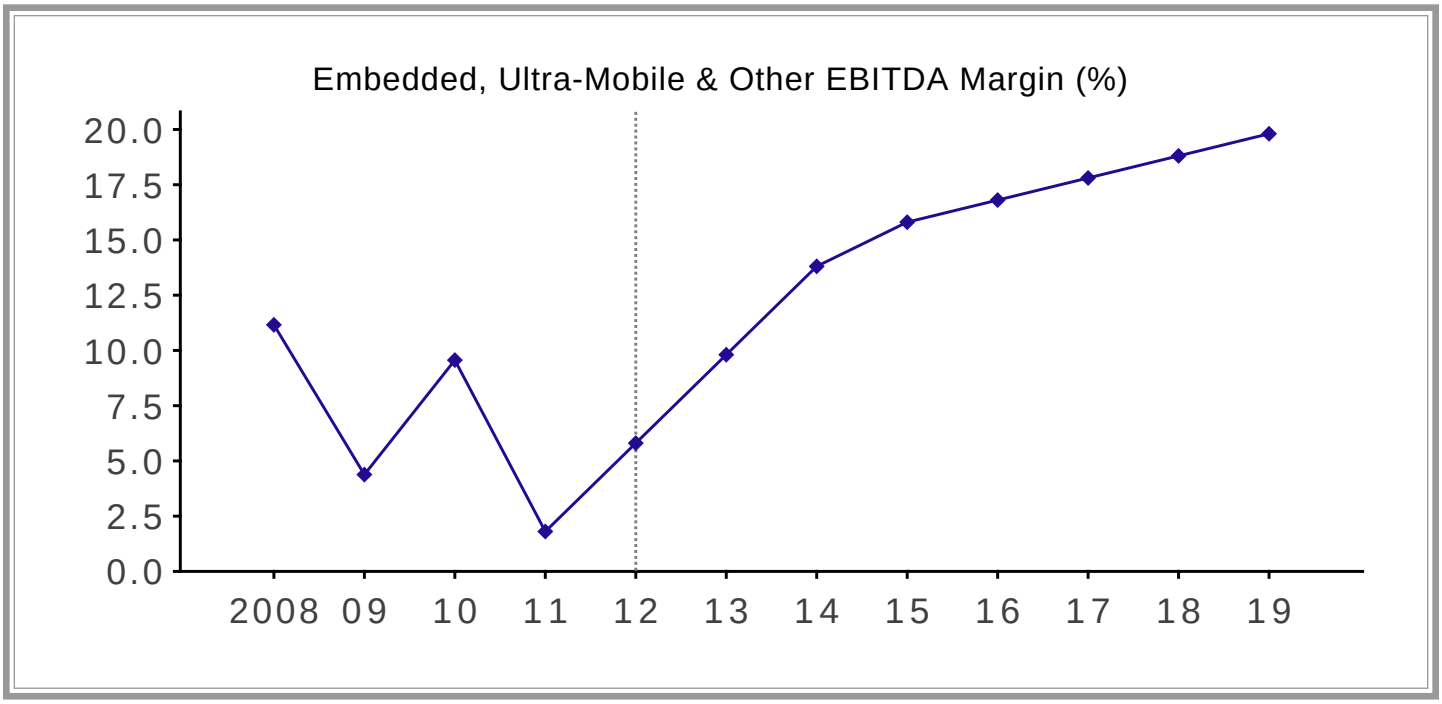
will increase to about $19 billion on global basis. Furthermore, it is expected that consumer and commercial telematics as well as in-vehicle applications will constute more than 33% to these revenues.

2. INCREASING ADOPTION OF SMARTPHONES WILL HELP GROW INTEL'S INFINEON RELATED REVENUE – Smartphone sales have increased from about 139 million in 2008 to an estimated 435 million in 2011, as per estimates from market research firm Gartner. The growth rate in 2011 stood close to 50%. We expect smartphones to continue to grow and reach 1 billion mark by end of our forecast period. Improving mobile network speeds, growing awareness of smartphones, multiple options present in the market and innovation from smartphone manufacturers will continue to drive this growth. Intel has acquired Infineon, which manufactures baseband chips used in smartphones, and thus should benefit from the market growth. This will help Intel's Embedded, Ultra-Mobile & Other Revenue

Sources for historical data and explanations can be found on the Trefis.com website (link)

— EMBEDDED, ULTRA-MOBILE & OTHER EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Embedded, Ultra-Mobile & Other EBITDA Margin has come down from about 17.6% in 2007 to just 1.8% in 2011. We believe, that over the course of next few years, this business will stabilize and margins will improve as Intel further penetrates into the embedded and smartphone segments.

Forecast Rationale

Trefis considered following factors for its forecast

1. INCREASE IN UNIT SALES WILL HELP REDUCE SOME FIXED COSTS AND IMPROVE MARGINS.
2. IMPROVEMENT IN PROCESS TECHNOLOGY WILL FURTHER REDUCE THE COSTS FOR INTEL. THE COMPANY HAS BEEN INVESTING HEAVILY IN NEW FACTORIES FOR MANUFACTURING.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	1.76	1.40	1.78	3.80	4.00	4.31	4.62	4.89	5.14	5.34	5.50	5.67
Direct Expense (Bil $)	1.57	1.34	1.61	3.74	3.76	3.89	3.98	4.12	4.28	4.39	4.47	4.55
Indirect Expense (Mil $)	123	41.7	88.2	35.4	152	255	357	425	469	523	571	621
Adjusted EBITDA (Bil $)	0.20	0.06	0.17	0.07	0.23	0.42	0.64	0.77	0.86	0.95	1.04	1.12
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	79.0	167	279	347	394	428	463	501

In addition, you can see the detailed P&L for the Embedded, Ultra-Mobile & Other business in the Appendix (link)

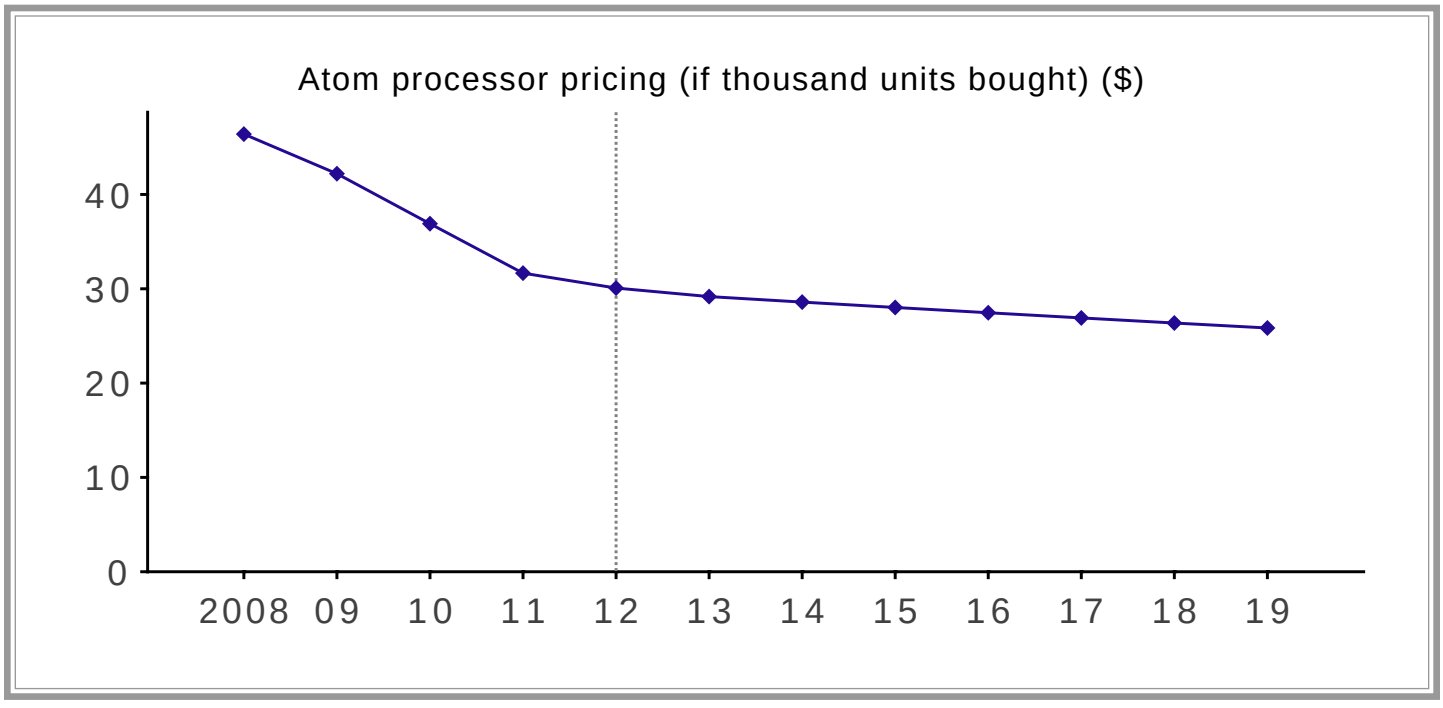
Atom Processors

The Atom Processors division is part of the Atom & Other Processors business, and constitutes 1.94% of our $31.94 price estimate for the stock, based on our sum of the parts analysis.The most important drivers for the Atom Processors business are:

- Atom processor pricing (if thousand units bought)
- Atom's market share
- Total available market size for Atom
- Atom Processor EBITDA Margin

— ATOM PROCESSOR PRICING (IF THOUSAND UNITS BOUGHT) —

Atom processor pricing represents Intel's average selling price per atom microprocessor, if the buying lot is minimum 1000 units. The average selling price represents the price at which Intel sells to PC companies (such as DELL, HP, Acer, Asus), smartphone manufacturers, car infotainment system makers, tablet manufacturers, smart TV manufacturers and other atom based device manufacturers.



Atom processor pricing has declined from $46.4 in 2008 to $31.7 in 2011. This is attributable to following two points

1) Price cut on existing Atom processors. For example, price of Z530 processor from Atom family declined from $70 in April, 2008 to $65 in March, 2009.

2) Introduction of new lower priced Atom processors in 2009. While the Atoms introduced in April 2008 had their highest priced processor at $135, it was only $44 for 2009

Going forward, we expect the prices to decline as the cost of manufacturing tweaks down due to technological advances. Also, competitive pressure from Qualcomm's Snapdragon, AMD's Neo, VIA's Nano, Nvidia's Tegra will lead to price declines.

Forecast Rationale

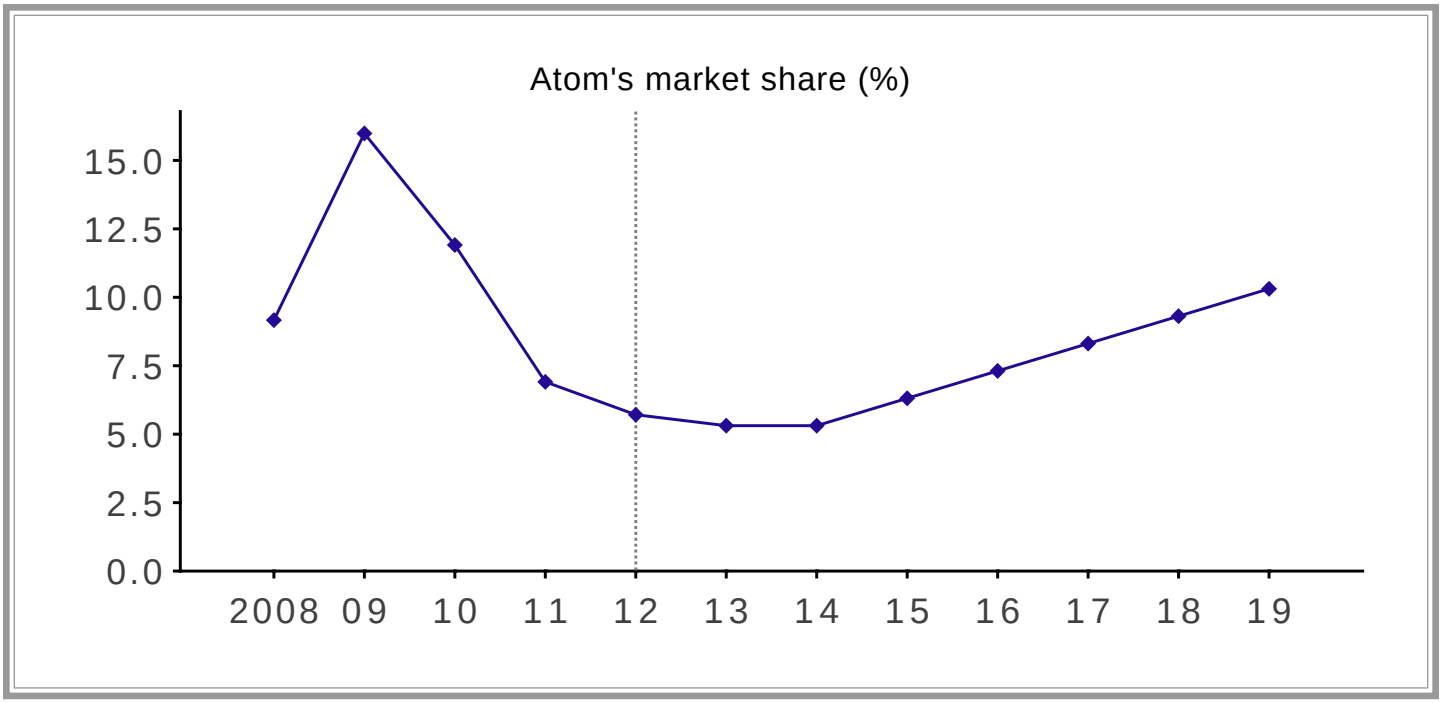
1. ADVANCEMENT IN MANUFACTURING PROCESS TECHNOLOGY WILL RESULT IN COST BENEFITS, THEREBY LEADING TO REDUCTION IN AVERAGE SELLING PRICES – Intel is launching Atom chips based on 32nm process technology. However the company has already started designing 22nm Atom chips that could be launched in 2013. Migration to lower node results in cost benefits and thus we expect some of these will be passed on to customers by reducing the selling prices.
2. COMPETITIVE PRESSURE FROM AMD, QUALCOMM, NVIDIA, VIA AND OTHER CHIP MAKERS WILL RESULT IN PRICE REDUCTIONS – Intel has greater competition for its Atom processors as compared to its PC and server processors where AMD is the only major competitor. The large range of devices which can use atom puts it into a very strong league of competition from a lot of chip makers. Thus we believe Intel will have to lower down Atoms prices in order to compete in this market.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— ATOM'S MARKET SHARE —

Atom's market share represents Atom's share in its total available market which includes netbooks, smartphones, tablets, car infotainment systems, smart TVs, low power consuming servers, energy management systems etc.

Atom is the family of Intel's low power consuming processors initially designed to meet the processing requirements of various mobile form factors, though lately it is also witnessing increased usage in broad range of other devices such as servers.



In 2008 and 2009, netbooks were the primary devices based on Atom platform. Our estimates of Atom's market share of 9.17% in 2008 and 16% in 2009 imply the use of netbooks as well as smartphones to calculate the total available market. However with launch of tablets in 2010, the addressable market size has only expanded. We estimate that Atom's share stood at around 6.9% in 2011. The decline resulted from decline in Atom shipments as netbook sales suffered tremendously due to launch of tablets.

Going forward we expect Atom's market share to continue the downfall for a few years before rising. This is primarily because Intel might take time to make a notable mark in fast growing mobile computing market and it may take it an year or two before Atom shipments show signs of significant growth.

Forecast Rationale

Supporting:

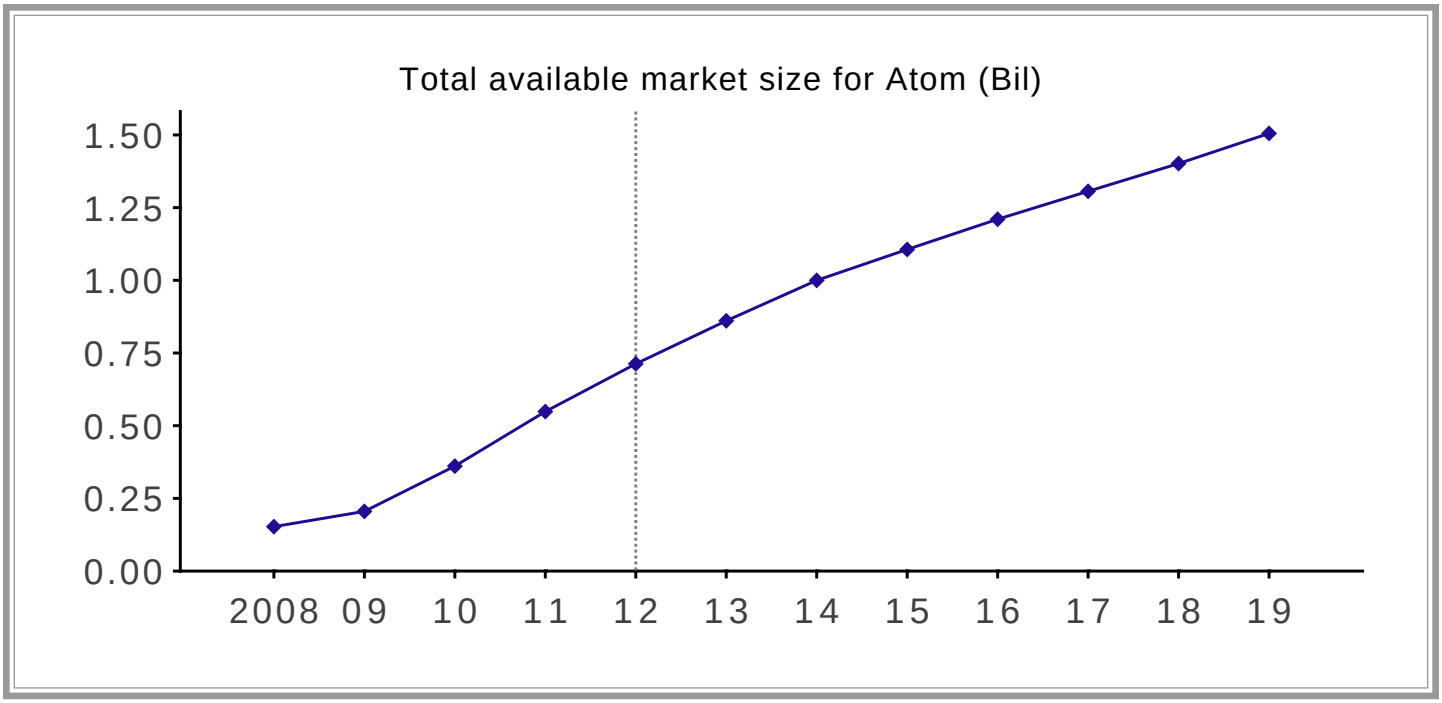
Mitigating:

1. SMARTPHONES AND TABLET MARKET AN OPPORTUNITY FOR ATOM TO GROW ITS SHARE. – Smartphones represent one of the fastest growing segments in consumer electronics. Smartphone sales have increased from about 139 million globally in 2008 to an estimated 435 million in 2011. Tablet market has exponentially increased after the successful launch of Apple's iPad and many major OEMs are coming up with new tablet PCs every now and then. Global tablet sales have grown from about 17.6 million in 2010 to 64.1 million n 2011. The fast paced growth is expected to continue for many years to come. Intel entered the smartphone market this year with the launch of Intel based phones by Lava International, Lenovo and Orange. It has around 20 Atom-based tablets in works which are expected to be launched by next year.
2. NEW ATOM BASED DEVICES SUCH AS GOOGLE TV, CAR INFOTAINMENT SYSTEMS, HOME AND BUSINESS ENERGY MANAGEMENT SYSTEMS WILL IMPROVE ATOM'S SHARE BY INCREASING THE AVAILABLE MARKET. – Atom is pioneering new range of devices such as Google TV, new age in-car infotainment systems, energy management systems etc. Intel doesn't have a very strong competition in these market segments currently from other chip makers as is the case with netbook, smartphone and tablet markets. Hence, Intel's share will benefit as Atom becomes the leading processor for these new devices.
3. DECLINE IN NETBOOK SALES – Netbooks, which saw significant growth in early years, have declined tremendously in 2011 due to increasing popularity of tablets. It may be the case that tablets completely replace the netbooks. So far Atom shipments have been primarily tied to netbook sales. Although Intel has plans to launch tablets and smartphones based on its Atom processors, it may take a while before there is any healthy growth in overall Atom processor shipments for Intel.
4. ATOM HAS STRONG COMPETITIVE PRESSURE FROM AMD, NVIDIA, QUALCOMM, TI, VIA, FREESCALE AND OTHER CHIP MAKERS – Atom's presence across multiple devices, brings with it, multiple competitors. This is not the case for its PC microprocessor business. Some of these competitors are well established (for example, Qualcomm in smartphones) and command a significant market share. Intel being late entrant will have to dig into their markets to establish itself.
5. QUALCOMM'S LEAP TO 28NM PROCESS TECHNOLOGY CAN POSE THREAT TO INTEL'S ATOM – Qualcomm is Intel's prime competitor in smartphone segment and a potential competitor in netbooks and tablet segments. While Qualcomm's is introducing 28nm Snapdragon processor in 2012, Intel's 2012 Atom chip will be based on 32nm process technology.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— TOTAL AVAILABLE MARKET SIZE FOR ATOM —

Total available market size for Atom represents the total number of devices shipped annually that use either Intel's Atom processor or a similar chip from the competition. Specifically, these devices include netbooks, smartphones, tablets, Google TV / smart TV, car infotainment systems and a range of new emerging devices such as low power consuming SeaMicro's servers, home and business energy management systems, next generation telecom networks etc.



The 2008 and 2009 numbers represent the sum of global netbooks and smartphones shipments. From 2010 onwards, the market size covers both newly introduced devices such as tablets and smart TVs and the devices which have been remodeled or revamped such as car infotainment systems.

Total available market size for Atom has increased at a fast pace from about 153 million in 2008 to about 549 million in 2011. We expect this market to cross 1 billion units by 2015 and reach close to 1.5 billion by 2019, the end of our forecast period.

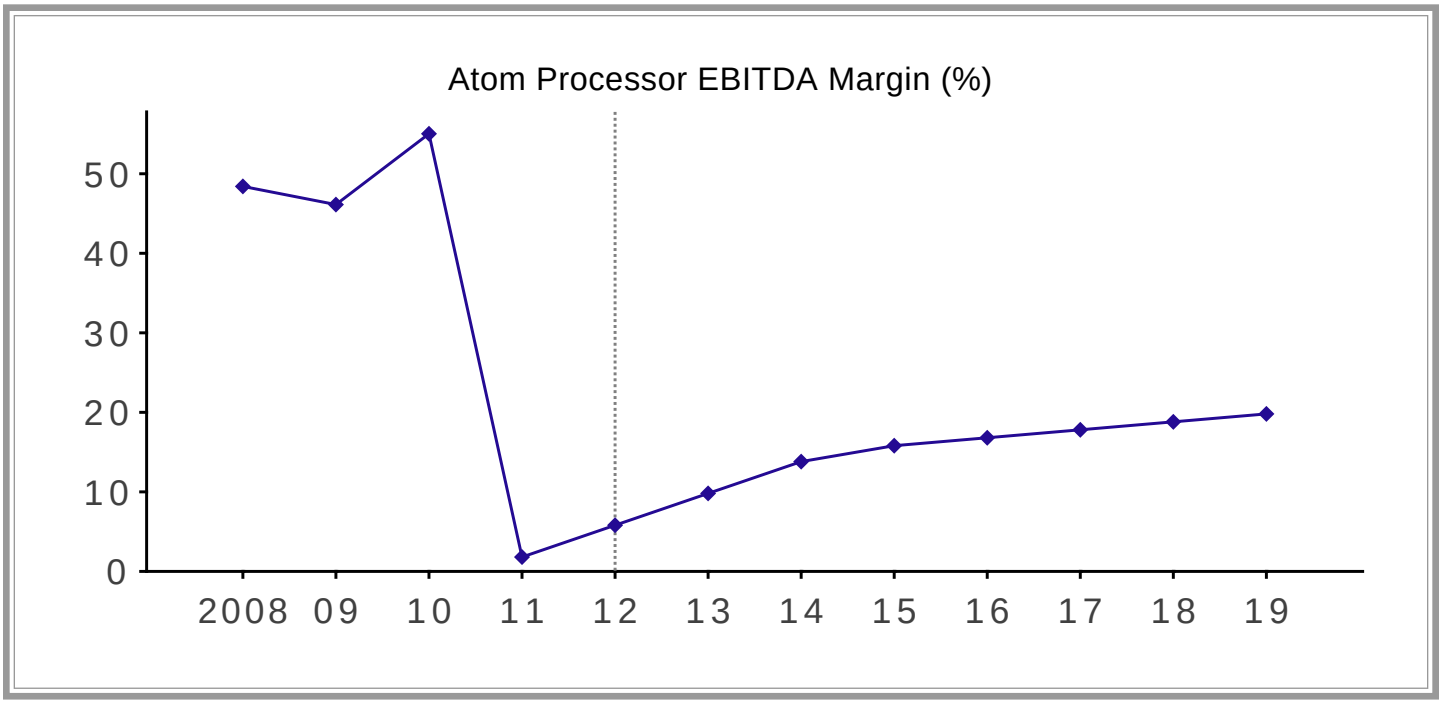
Forecast Rationale

1. INCREASING ADOPTION OF SMARTPHONES AND TABLETS WILL DRIVE THE MARKET OPPORTUNITY – Smartphone sales have increased from about 139 million in 2008 to an estimated 435 million in 2011, as per estimates from market research firm Gartner. The growth rate in 2011 stood close to 50%. We expect smartphones to continue to grow and reach 1 billion mark by end of our forecast period. Improving mobile network speeds, growing awareness of smartphones, multiple options present in the market and innovation from smartphone manufacturers will continue to drive this growth. Tablets first came into lime light in 2010 with launch of Apple's iPad which received overwhelming success. Following Apple's lead, other companies such as Motorola, RIM, Asus and Samsung have launched their own tablets. This has created another opportunity for chip makers to increase their revenues.
2. INTEL'S ATTEMPT OF GIVING SHAPE TO ITS VISION OF "ATOM ANYWHERE, ATOM EVERYWHERE" IS DRIVING ITS USAGE IN A BROAD RANGE OF NEW DEVICES. – Intel previously unveiled Atom based "Tunnel Creek" System-on-Chip (SoC) for IP media phones, printers, and in-vehicle infotainment systems for cars. China carmaker HawTai had announced its plans to incorporate Atom processor in future in-vehicle infotainment platforms. China Mobile, world's largest wireless telecommunications company, is adopting Intel's Atom for targeted platforms powering its wireless networks. Intel has devised an inexpensive energy management system for consumers for home usage through which they can monitor, analyze and control their energy usage, thereby cutting down on their bills. Intel has been pushing Atom to power the platforms in the smart-TVs designed by Sony, Google and Logitech. SeaMicro introduced server based on Atom processors which are seen to be apt for cloud computing requirements. Thus, with such a broad range of devices using Atom, the market size is set to grow over the time.

Sources for historical data and explanations can be found on the Trefis.com website (link)

— ATOM PROCESSOR EBITDA MARGIN —

Earnings before interest, taxes, depreciation and amortization (EBITDA) are profits after factoring in typical expenses, such as cost of goods and services sold, SG&A Expenses, and R&D Expenses. EBITDA margin represents divisional EBITDA as a percentage of divisional revenues. We adjust EBITDA figures to exclude non-cash charges such as stock-based compensation expenses.



Atom Processor EBITDA Margin is based on overall reported 'PC Client Group' EBITDA margin for the years 2007 to 2010. For 2011, Atom Processor EBITDA Margin is based on reported 'Other Intel Architecture' EBITDA margin. Intel previously used to consolidate most of Atom's revenues within 'PC Client Group' segment. However from 2011, the company reports Atom revenues under 'Other Intel Architecture' segment. The sharp fall in EBITDA margin in 2011 is due to this reporting difference as the company does not separate out Atom's margins. While pricing is on decline, going forward we estimate Atom Processor EBITDA Margin to benefit as Intel increases its market share in mobile computing devices market. Also, Intel will benefit from scale efficiencies as it migrates from to a better process technology.

Forecast Rationale

Trefis considered following factors for its forecast:

1. DESPITE DECLINE IN SELLING PRICES, ATOM'S EBITDA MARGINS WILL BENEFIT FROM ITS RISING MARKET SHARE – Atom's margins will benefit from its increased usage in various devices. We estimate Atom's market share to increase from around 6.9% in 2011 to more than 9% by end of our forecast period, thus implying large shipments of Atom processors in growing market. This will benefit EBITDA margins as the fixed costs will be distributed over a larger base of revenue after negating effect of selling price declines.
2. MIGRATION TO 32NM, 22NM NODES – While technological migration to 32nm will help 2012 margins, migration to 22nm in 2013 will further increase the efficiency and improve margins.

Sources for historical data and explanations can be found on the Trefis.com website (link)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenue (Bil $)	0.65	1.38	1.59	1.20	1.22	1.33	1.52	1.96	2.43	2.92	3.44	4.01

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Direct Expense (Bil $)	0.34	0.75	0.71	1.18	1.15	1.20	1.31	1.65	2.02	2.40	2.79	3.22
Indirect Expense (Mil $)	197	433	451	11.2	46.8	78.9	117	170	221	286	357	439
Adjusted EBITDA (Mil $)	314	638	873	21.7	71.1	130	209	309	408	520	647	794
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	24.2	51.8	91.9	138	186	233	289	354

In addition, you can see the detailed P&L for the Atom Processors business in the Appendix (link)

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— About Trefis —

Trefis.com was founded by MIT engineers and former Wall Street analysts who realized that most people do not understand the seemingly familiar companies around them including well known companies like Apple, Google, Coca Cola, GE, Ford and Gap to name a few.

The Trefis platform uses extensive data to show in a single snapshot what drives the value of a company's business. We move beyond the qualitative notion "if you love the coffee at Dunkin' Donuts, you should think about buying the stock," to answer quantitative questions like "If their coffee sales are up 10% next year but doughnut sales are down 5%, what happens to the value of the company?"

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Appendix

Summary P&L for Intel

Summary P&L for Intel

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Total Revenues (Bil $)	36.3	34.0	42.1	50.6	51.8	53.2	54.6	56.3	57.7	58.9	60.2	61.6
Notebook Processors (% of total)	33.1	33.3	34.7	35.9	36.0	36.0	35.7	35.4	35.0	34.6	34.3	34.0
Server Processors (% of total)	14.1	15.6	17.5	17.0	17.5	17.7	18.0	18.3	18.8	19.1	19.4	19.8
Desktop Processors (% of total)	24.3	21.2	20.3	19.5	18.9	18.2	17.4	16.7	15.8	15.0	14.2	13.5
Notebook & Desktop Chipsets (% of total)	17.8	18.4	16.3	14.5	14.2	14.3	14.3	14.0	13.8	13.7	13.5	13.3
Server Chipsets (% of total)	4.03	3.38	3.17	3.18	3.23	3.27	3.35	3.41	3.50	3.56	3.62	3.68
Embedded, Ultra-Mobile & Other (% of total)	4.85	4.12	4.24	7.51	7.71	8.11	8.46	8.70	8.91	9.07	9.14	9.21
Atom Processors (% of total)	1.79	4.07	3.77	2.37	2.36	2.51	2.78	3.48	4.21	4.96	5.71	6.51
Direct Expenses (Bil $)	19.5	18.5	19.0	24.5	24.8	25.5	26.1	27.1	27.9	28.8	29.6	30.4
Notebook Processors (% of total)	34.6	33.6	34.8	38.3	38.0	37.8	37.3	37.0	36.7	36.5	36.2	35.9
Server Processors (% of total)	14.3	18.0	20.2	21.0	22.0	22.2	22.5	23.0	23.6	24.1	24.6	25.0
Desktop Processors (% of total)	25.4	21.4	20.3	20.8	19.9	19.1	18.2	17.5	16.6	15.8	15.0	14.3
Notebook & Desktop Chipsets (% of total)	18.5	18.6	16.4	15.5	15.0	15.0	15.0	14.7	14.5	14.4	14.2	14.1
Server Chipsets (% of total)	4.10	3.90	3.66	3.93	3.94	3.98	4.05	4.14	4.26	4.34	4.43	4.52
Embedded, Ultra-Mobile & Other (% of total)	1.17	0.40	0.74	0.26	0.86	1.53	2.24	2.65	2.91	3.15	3.38	3.60
Atom Processors (% of total)	1.87	4.11	3.78	0.08	0.26	0.47	0.74	1.06	1.37	1.72	2.11	2.55
Adjusted EBITDA (Bil $)	16.8	15.5	23.1	26.1	27.0	27.7	28.5	29.2	29.7	30.2	30.7	31.2
Notebook Processors (% of total)	34.6	33.6	34.8	38.3	38.0	37.8	37.3	37.0	36.7	36.5	36.2	35.9
Server Processors (% of total)	14.3	18.0	20.2	21.0	22.0	22.2	22.5	23.0	23.6	24.1	24.6	25.0
Desktop Processors (% of total)	25.4	21.4	20.3	20.8	19.9	19.1	18.2	17.5	16.6	15.8	15.0	14.3
Notebook & Desktop Chipsets (% of total)	18.5	18.6	16.4	15.5	15.0	15.0	15.0	14.7	14.5	14.4	14.2	14.1
Server Chipsets (% of total)	4.10	3.90	3.66	3.93	3.94	3.98	4.05	4.14	4.26	4.34	4.43	4.52
Embedded, Ultra-Mobile & Other (% of total)	1.17	0.40	0.74	0.26	0.86	1.53	2.24	2.65	2.91	3.15	3.38	3.60
Atom Processors (% of total)	1.87	4.11	3.78	0.08	0.26	0.47	0.74	1.06	1.37	1.72	2.11	2.55
Indirect Expenses (Bil $)	10.6	10.5	11.9	13.5	17.8	16.7	16.0	16.1	16.1	16.6	16.9	17.3
Notebook Processors (% of total)	34.6	33.6	34.8	38.3	38.0	37.8	37.3	37.0	36.7	36.5	36.2	35.9
Server Processors (% of total)	14.3	18.0	20.2	21.0	22.0	22.2	22.5	23.0	23.6	24.1	24.6	25.0
Desktop Processors (% of total)	25.4	21.4	20.3	20.8	19.9	19.1	18.2	17.5	16.6	15.8	15.0	14.3
Notebook & Desktop Chipsets (% of total)	18.5	18.6	16.4	15.5	15.0	15.0	15.0	14.7	14.5	14.4	14.2	14.1
Server Chipsets (% of total)	4.10	3.90	3.66	3.93	3.94	3.98	4.05	4.14	4.26	4.34	4.43	4.52

Summary P&L for Intel continued

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Embedded, Ultra-Mobile & Other (% of total)	1.17	0.40	0.74	0.26	0.86	1.53	2.24	2.65	2.91	3.15	3.38	3.60
Atom Processors (% of total)	1.87	4.11	3.78	0.08	0.26	0.47	0.74	1.06	1.37	1.72	2.11	2.55
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	9.20	11.0	12.5	13.1	13.6	13.6	13.7	13.9
Notebook Processors (% of total)	n/a	n/a	n/a	n/a	38.0	37.8	37.3	37.0	36.7	36.5	36.2	35.9
Server Processors (% of total)	n/a	n/a	n/a	n/a	22.0	22.2	22.5	23.0	23.6	24.1	24.6	25.0
Desktop Processors (% of total)	n/a	n/a	n/a	n/a	19.9	19.1	18.2	17.5	16.6	15.8	15.0	14.3
Notebook & Desktop Chipsets (% of total)	n/a	n/a	n/a	n/a	15.0	15.0	15.0	14.7	14.5	14.4	14.2	14.1
Server Chipsets (% of total)	n/a	n/a	n/a	n/a	3.94	3.98	4.05	4.14	4.26	4.34	4.43	4.52
Embedded, Ultra-Mobile & Other (% of total)	n/a	n/a	n/a	n/a	0.86	1.53	2.24	2.65	2.91	3.15	3.38	3.60
Atom Processors (% of total)	n/a	n/a	n/a	n/a	0.26	0.47	0.74	1.06	1.37	1.72	2.11	2.55

Detailed P&L for the Notebook Processors business

The most important drivers for the Notebook Processors business are discussed above, here is the detailed P&L.

Notebook Processors: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Notebook Processors (Bil $)	12.0	11.3	14.6	18.2	18.7	19.2	19.5	19.9	20.2	20.4	20.7	20.9
Intel's Average Notebook Processor Price ($)	107	96.0	104	121	121	119	116	114	112	109	107	105
Global Notebook Shipments (Mil)	128	135	161	177	187	198	208	219	227	237	246	256
Intel's Notebook Processor Market Share (%)	87.1	86.8	86.4	84.3	81.8	80.8	79.8	79.3	78.8	78.3	77.8	77.3
Total Revenues (Bil $)	12.0	11.3	14.6	18.2	18.7	19.2	19.5	19.9	20.2	20.4	20.7	20.9
Expenses												
Direct Expenses (Bil $)	6.21	6.10	6.57	8.15	8.41	8.67	8.85	9.09	9.25	9.40	9.57	9.73
Notebook Processors EBITDA Margin (%)	48.4	46.1	55.0	55.1	54.9	54.7	54.5	54.3	54.1	53.9	53.7	53.5
Indirect Expenses (Bil $)	3.66	3.55	4.16	5.16	6.76	6.33	5.96	5.95	5.93	6.06	6.14	6.21
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2

Notebook Processors: Detailed P&L continued

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	9.87	9.65	10.7	13.3	15.2	15.0	14.8	15.0	15.2	15.5	15.7	15.9
Adjusted EBITDA (Bil $)	5.83	5.22	8.03	10.0	10.3	10.5	10.6	10.8	10.9	11.0	11.1	11.2
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	3.49	4.16	4.66	4.86	4.98	4.95	4.97	5.00

Detailed P&L for the Server Processors business

The most important drivers for the Server Processors business are discussed above, here is the detailed P&L.

Server Processors: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Server Processors (Bil $)	5.13	5.30	7.36	8.63	9.07	9.41	9.83	10.3	10.8	11.3	11.7	12.2
Intel's Average Server Processor Price ($)	326	390	447	479	489	489	489	489	489	489	489	489
Global Server Shipments (Mil)	9.07	7.56	8.84	9.52	10.2	10.9	11.7	12.5	13.4	14.2	15.0	15.9
Intel's Server Processor Market Share (%)	86.6	89.9	93.0	94.5	91.0	88.3	86.2	84.6	83.0	81.4	79.8	78.2
Microprocessors per Server	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
Total Revenues (Bil $)	5.13	5.30	7.36	8.63	9.07	9.41	9.83	10.3	10.8	11.3	11.7	12.2
Expenses												
Direct Expenses (Bil $)	2.71	2.50	2.69	3.14	3.12	3.26	3.42	3.62	3.82	3.99	4.17	4.36
Server Processors EBITDA Margin (%)	47.1	52.8	63.5	63.6	65.6	65.4	65.2	65.0	64.8	64.6	64.4	64.2
Indirect Expenses (Bil $)	1.52	1.90	2.42	2.83	3.92	3.71	3.60	3.69	3.82	4.00	4.17	4.32
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	4.23	4.40	5.11	5.97	7.04	6.97	7.02	7.31	7.63	8.00	8.34	8.68

Server Processors: Detailed P&L continued

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Adjusted EBITDA (Bil $)	2.42	2.80	4.67	5.49	5.95	6.16	6.41	6.71	7.02	7.28	7.54	7.81
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	2.03	2.44	2.81	3.02	3.21	3.27	3.37	3.48

Detailed P&L for the Desktop Processors business

The most important drivers for the Desktop Processors business are discussed above, here is the detailed P&L.

Desktop Processors: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Desktop Processors (Bil $)	8.83	7.21	8.53	9.87	9.80	9.66	9.52	9.39	9.11	8.84	8.58	8.32
Intel's Average Desktop Processor Price ($)	83.0	74.5	81.1	91.7	91.7	90.8	89.9	89.0	88.1	87.2	86.3	85.5
Global Desktop Shipments (Mil)	144	136	145	145	148	150	151	153	152	151	151	150
Intel's Desktop Processor Market Share (%)	73.4	71.0	72.1	73.8	71.8	70.8	69.8	68.8	67.8	66.8	65.8	64.8
Total Revenues (Bil $)	8.83	7.21	8.53	9.87	9.80	9.66	9.52	9.39	9.11	8.84	8.58	8.32
Expenses												
Direct Expenses (Bil $)	4.55	3.88	3.84	4.43	4.42	4.37	4.33	4.29	4.18	4.07	3.97	3.87
Desktop Processor EBITDA Margin (%)	48.4	46.1	55.0	55.1	54.9	54.7	54.5	54.3	54.1	53.9	53.7	53.5
Indirect Expenses (Bil $)	2.68	2.26	2.43	2.80	3.55	3.19	2.92	2.81	2.68	2.62	2.55	2.47
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	7.24	6.14	6.27	7.24	7.96	7.56	7.25	7.09	6.86	6.70	6.52	6.33
Adjusted EBITDA (Bil $)	4.27	3.32	4.70	5.44	5.38	5.29	5.19	5.10	4.93	4.77	4.61	4.46
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	1.83	2.10	2.28	2.29	2.25	2.15	2.06	1.99

Detailed P&L for the Notebook & Desktop Chipsets business

The most important drivers for the Notebook & Desktop Chipsets business are discussed above, here is the detailed P&L.

Notebook & Desktop Chipsets: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Notebook & Desktop Chipsets Revenue (Bil $)	6.45	6.26	6.88	7.36	7.36	7.58	7.81	7.89	7.97	8.05	8.13	8.21
Notebook & Desktop Chipsets Revenue ($ Bil)	6.45	6.26	6.88	7.36	7.36	7.58	7.81	7.89	7.97	8.05	8.13	8.21
Total Revenues (Bil $)	6.45	6.26	6.88	7.36	7.36	7.58	7.81	7.89	7.97	8.05	8.13	8.21
Expenses												
Direct Expenses (Bil $)	3.33	3.37	3.09	3.31	3.32	3.43	3.55	3.60	3.66	3.71	3.76	3.82
Notebook & Desktop Chipsets EBITDA Margin (%)	48.4	46.1	55.0	55.1	54.9	54.7	54.5	54.3	54.1	53.9	53.7	53.5
Indirect Expenses (Bil $)	1.96	1.96	1.96	2.09	2.67	2.51	2.39	2.36	2.34	2.39	2.41	2.43
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	5.29	5.33	5.05	5.40	5.99	5.94	5.94	5.96	6.00	6.10	6.17	6.25
Adjusted EBITDA (Bil $)	3.12	2.89	3.78	4.06	4.05	4.15	4.26	4.29	4.31	4.34	4.37	4.40
Free Cash Flow (Bil $)	n/a	n/a	n/a	n/a	1.38	1.65	1.87	1.93	1.97	1.95	1.96	1.96

Detailed P&L for the Server Chipsets business

The most important drivers for the Server Chipsets business are discussed above, here is the detailed P&L.

Server Chipsets: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Server Chipsets Revenue (Bil $)	1.46	1.15	1.33	1.61	1.68	1.74	1.83	1.92	2.02	2.10	2.18	2.27
Server Chipsets Revenue ($ Bil)	1.46	1.15	1.33	1.61	1.68	1.74	1.83	1.92	2.02	2.10	2.18	2.27
Total Revenues (Bil $)	1.46	1.15	1.33	1.61	1.68	1.74	1.83	1.92	2.02	2.10	2.18	2.27
Expenses												
Direct Expenses (Mil $)	774	542	486	585	611	639	675	712	752	786	822	859
Server Chipsets EBITDA Margin (%)	47.1	52.8	63.5	63.7	63.5	63.3	63.1	62.9	62.7	62.5	62.3	62.1
Indirect Expenses (Mil $)	433	411	437	528	701	665	648	665	687	721	750	780
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	1.21	0.95	0.92	1.11	1.31	1.31	1.32	1.38	1.44	1.51	1.57	1.64
Adjusted EBITDA (Bil $)	0.69	0.61	0.85	1.03	1.06	1.10	1.15	1.21	1.26	1.31	1.36	1.41
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	362	437	506	543	577	589	608	628

Detailed P&L for the Embedded, Ultra-Mobile & Other business

The most important drivers for the Embedded, Ultra-Mobile & Other business are discussed above, here is the detailed P&L.

Embedded, Ultra-Mobile & Other: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Embedded, Ultra-Mobile & Other Revenue (Bil $)	1.76	1.40	1.78	3.80	4.00	4.31	4.62	4.89	5.14	5.34	5.50	5.67
Embedded, Ultra-Mobile & Other Revenue ($ Bil)	1.76	1.40	1.78	3.80	4.00	4.31	4.62	4.89	5.14	5.34	5.50	5.67
Total Revenues (Bil $)	1.76	1.40	1.78	3.80	4.00	4.31	4.62	4.89	5.14	5.34	5.50	5.67
Expenses												
Direct Expenses (Bil $)	1.57	1.34	1.61	3.74	3.76	3.89	3.98	4.12	4.28	4.39	4.47	4.55
Embedded, Ultra-Mobile & Other EBITDA Margin (%)	11.2	4.38	9.56	1.81	5.81	9.81	13.8	15.8	16.8	17.8	18.8	19.8
Indirect Expenses (Mil $)	123	41.7	88.2	35.4	152	255	357	425	469	523	571	621
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	1.69	1.38	1.70	3.77	3.92	4.15	4.34	4.55	4.74	4.92	5.04	5.17
Adjusted EBITDA (Bil $)	0.20	0.06	0.17	0.07	0.23	0.42	0.64	0.77	0.86	0.95	1.04	1.12
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	79.0	167	279	347	394	428	463	501

Detailed P&L for the Atom Processors business

The most important drivers for the Atom Processors business are discussed above, here is the detailed P&L.

Atom Processors: Detailed P&L

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Revenues												
Atom Revenues (Bil $)	0.65	1.38	1.59	1.20	1.22	1.33	1.52	1.96	2.43	2.92	3.44	4.01
Atom's market share (%)	9.17	16.0	11.9	6.91	5.71	5.31	5.31	6.31	7.31	8.31	9.31	10.3
Total available market size for Atom (Bil)	0.15	0.21	0.36	0.55	0.71	0.86	1.00	1.11	1.21	1.31	1.40	1.51
Atom processor pricing (if thousand units bought)	46.4	42.2	36.9	31.7	30.1	29.2	28.6	28.0	27.5	26.9	26.4	25.8
Total Revenues (Bil $)	0.65	1.38	1.59	1.20	1.22	1.33	1.52	1.96	2.43	2.92	3.44	4.01
Expenses												
Direct Expenses (Bil $)	0.34	0.75	0.71	1.18	1.15	1.20	1.31	1.65	2.02	2.40	2.79	3.22
Atom Processor EBITDA Margin (%)	48.4	46.1	55.0	1.81	5.81	9.81	13.8	15.8	16.8	17.8	18.8	19.8
Indirect Expenses (Mil $)	197	433	451	11.2	46.8	78.9	117	170	221	286	357	439
Net Losses from All Other Products ($ Bil)	-2.35	-3.81	-1.85	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38	-1.38
CapEx as % of Sales (%)	14.3	13.3	12.4	21.3	23.3	19.3	17.3	16.3	15.3	15.3	15.3	15.3
Stock-based Compensation as a % of Sales (%)	2.34	2.61	2.18	2.08	2.03	1.98	1.93	1.88	1.83	1.73	1.63	1.53
Effective Tax Rate (%)	31.1	23.4	28.6	27.2	29.2	30.2	31.2	31.2	31.2	31.2	31.2	31.2
Change in Net Working Capital as % of Revenue (%)	1.68	3.43	1.88	-3.75	-0.75	0.25	0.25	0.25	0.25	0.25	0.25	0.25
Change in Net Other Operating Assets as % of Revenue (%)	0.63	-0.63	-1.07	-3.07	-0.07	0.43	0.43	0.43	0.43	0.43	0.43	0.43
Total Expenses (Bil $)	0.53	1.18	1.17	1.19	1.20	1.28	1.43	1.82	2.24	2.69	3.15	3.66
Adjusted EBITDA (Mil $)	314	638	873	21.7	71.1	130	209	309	408	520	647	794
Free Cash Flow (Mil $)	n/a	n/a	n/a	n/a	24.2	51.8	91.9	138	186	233	289	354