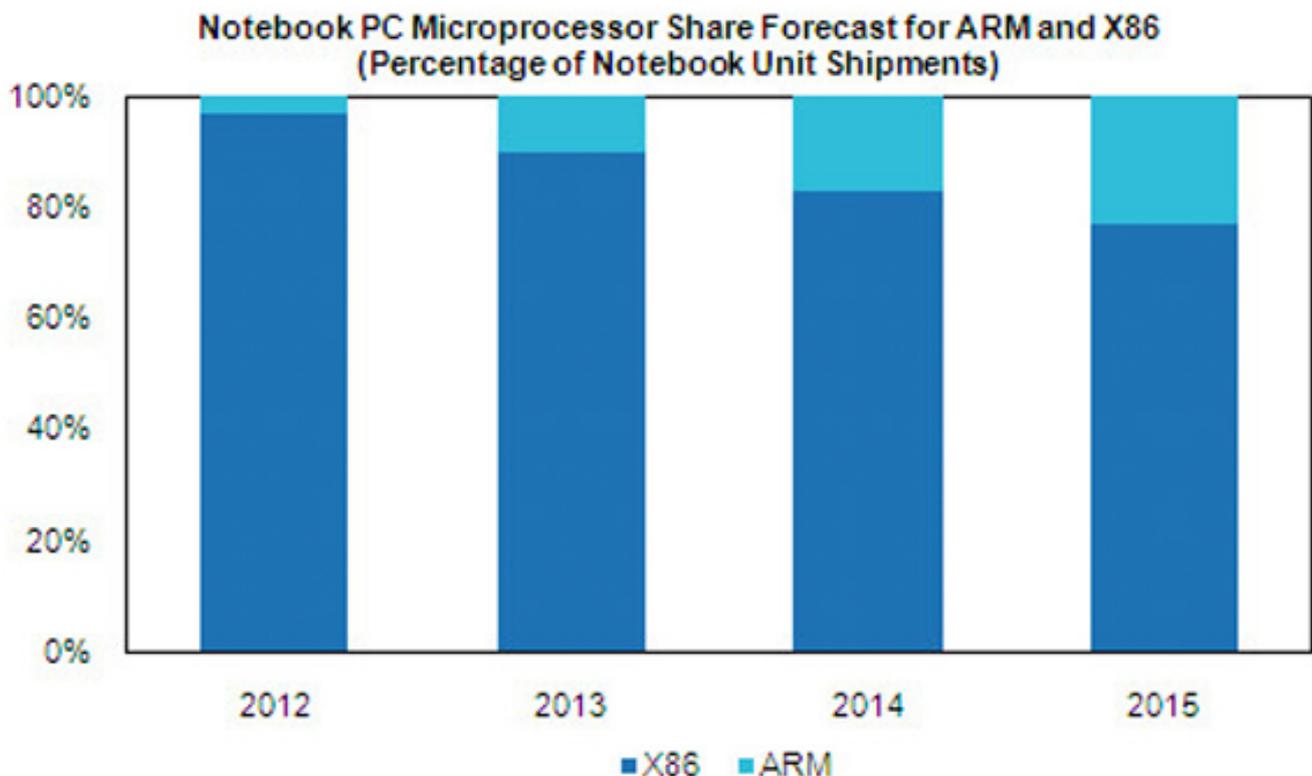


## ARM Processors to Ship in Nearly One-Quarter of Notebook PCs in 2015

After more than 30 years of domination by a single microarchitecture—Intel Corp.’s X86—the PC microprocessor (MPU) market finally is set for some real competition, with shipments of ARM processors set to soar in the coming years and projected to appear in nearly one out of every four notebook PCs made in 2015.

Spurred by next year’s introduction of Microsoft Corp.’s new ARM-enabled Windows 8 operating system, ARM-based systems will account for 22.9 percent of global notebook PC unit shipments in 2015, up from 3 percent in 2012. Shipments will reach 74 million ARM notebooks in 2015, compared to 7.6 million in 2012.

The figure below presents a forecast of ARM processor usage in notebooks from the new IHS iSuppli report entitled “Desktop and Notebook PC Technology Penetration Forecast,” from information and analysis provider IHS.



*Source: IHS iSuppli July 2011*

“Starting in 1981, when IBM first created its original PC based on Intel’s 8088 microprocessor, the X86 architecture has dominated the PC market,” said Matthew Wilkins, principal analyst of compute platforms for IHS. “Over the next generation,

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billions of PCs were shipped based on X86 microprocessors supplied by Intel and assorted rivals—mainly Advanced Micro Devices Inc. However, the days of X86's unchallenged domination are coming to an end as Windows 8 opens the door for the use of the ARM processor, which already has achieved enormous popularity in the mobile phone and tablet worlds."

To be introduced in 2012, Windows 8 is expected to support ARM-based PC systems in some versions. Microsoft at the Consumer Electronics Show (CES) in January announced that Windows 8 would work with ARM-based system on chip (SoC) designs, whereas the company's flagship operating system has supported only standalone X86 microprocessors in the past. ARM support will enable the full-fledged Windows PC operating system to work on highly integrated chips that are more space- and power-efficient than traditional X86 microprocessors, such as the ARM devices used in smartphones and media tablets.

ARM during the next few years is expected to achieve its biggest successes in the value notebook segment.

Typically priced at less than \$700, value notebooks are designed to deliver the optimal price/performance to consumers. A category that includes netbooks, value notebooks most frequently employ AMD's E Series and Intel's Celeron M and Atom microprocessors.

"ARM is well-suited for value notebooks, where performance isn't a key criterion for buyers," Wilkins said. "Value notebook buyers are looking for basic systems that balance an affordable price with reasonable performance. ARM processors deliver acceptable performance at a very low cost, along with unrivaled power efficiency."

The proliferation of ARM-based notebooks is expected to provide growth opportunities for a raft of existing as well as new suppliers of the chip, including NVIDIA, Qualcomm and Texas Instruments.

However, Intel and AMD are not expected to cede a portion of their market without a fight.

For example, Intel is developing its Tri-Gate 3-D transistor technology, which allows X86 microprocessors to cut their power consumption in half while still delivering the same level of performance. This potentially will help Intel to maintain its position in PC processors, but also may allow it to expand its X86 business into tablets and cellphones. Likewise, AMD has been working to reduce power consumption for its X86 devices.

For more information please visit, [www.ihs.com](http://www.ihs.com) [1]

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