
THE DEVIL'S ADVOCATE REPORT

May 3, 2010

Research In Motion

(SELL)

Price:	\$72.00	Ticker:	RIMM
52-Week Range:	\$54.30-\$88.08	Dividend:	Zero
Shares Outstanding:	570.9 million	Yield:	Zero
Market Capitalization:	\$41.1 billion		

Data As of Date 5/03/2010



*Exclusive Marketers of
The Devil's Advocate Report*

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Investment Thesis

At first glance, Research in Motion (RIM) appears to have many attractive attributes. The company is a market leader in the rapidly growing smartphone market; its overseas shipments grew by over 80% in the most recent quarter; its BlackBerry Network allows it to deliver emails to its smartphone devices faster and more reliably than any other handset manufacturer while using less bandwidth; and, with less than a 30% adoption rate of smartphones in the Western World and 10% in the emerging world, the room to expand appears to be substantial.

However, because of the success of RIM's BlackBerry devices as well as Apple's iPhone, all significant handset manufacturers, as well as most major PC manufacturers, are now focusing on bringing smartphones to the market at very competitive prices. Consequently, intense competition over the next few years will likely result in a reduction in the number of operating systems on the market (the significance of which will be discussed further below), as well as significantly reduced average selling prices (ASPs). For example, if, as a result of the competitive price environment, RIM's average selling price is reduced by one-third in a given year, the company would then have to ship 50% additional units just to avoid a revenue decline. In addition, reduced pricing would likely result in a significant contraction in gross margin, as manufacturing costs are unlikely to decline by a similar magnitude.

As a result, RIM's earnings growth may soon slow or even reverse, unless it can: 1) develop phones that are competitive with smartphones from Apple, Nokia, Google, as well as a handful of additional manufacturers that are now vigorously engaged in smartphone development; while 2) simultaneously retaining its existing profit margins, which are twice as high as industry leader Nokia's. Wall Street expects RIM to grow its revenues 26% and its earnings 24% in the current fiscal year with continued strong growth in FY2012. Given RIM's competitive position, it will be very difficult for the company to meet these forecasts.

RIM has had a significant first-mover advantage in the smartphone market since it emerged as a leader in the efficient delivery of emails more than a decade ago. Particularly corporations have embraced these devices because of their emailing capabilities. Though corporate customers still prefer BlackBerry devices, the majority of RIM's new customers are individual consumers, and their preferences differ. Consumers now prefer social networking features in their phones in addition to a wide selection of applications, feature-filled music players, advanced web browsers, high-resolution cameras and video cameras, as well as well-functioning operating systems. While RIM's strong emailing capabilities used to be sufficient to attract corporate users as well as consumers, the market has now changed, and RIM's software and hardware offerings have fallen behind. Therefore, because BlackBerry devices are now as much consumer products as they are corporate, it is difficult to foresee that RIM can avoid significant margin pressure as its devices increasingly target a mass market, while its product differentiation is slowly vanishing as the end-user focus shifts away from its strength.

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There are additional, perhaps inexorable, threats, which include the loss of competitiveness in the capacity for application development as well as signs that the competition is intensifying in the corporate market, which RIM is still dominating. Apple recently announced a new version of its operating system, which has more features for Microsoft Exchange support, thereby making it a real alternative to BlackBerry devices for the corporate market, in addition to the consumer market. Similarly, Google's Android operating system is introducing additional features that target corporate users, as well. In fact, given the popularity of the Apple and Google operating systems, it is even possible that BlackBerry's operating system may not ultimately survive, since the market generally chooses two to three platforms as it matures, as has been the case in the personal computer market. To survive, an operating system must attract enough developers to write applications for that operating system, or it will lose much of its consumer appeal. Apple's iPhone operating system and Google's Android operating system are now the dominant platforms for application development. In addition, Microsoft is investing substantial resources to try to make its forthcoming Windows Phone 7 a success, and Nokia is similarly promoting its new Symbian^3 operating system. Given the resources and market acceptance of these four companies and their platforms, it is clear that RIM has a formidable challenge to compete as a stand-alone platform. Also, Hewlett Packard's recently announced acquisition of Palm indicates that substantial resources will be invested into its WebOs operating system. Finally, it is likely that Apple will introduce an upgraded iPhone model within the next two months, which should further exploit RIM's relative weakness in its current product cycle, and it is widely speculated that the new iPhone will also be available on the Verizon Wireless network, which should further reduce RIM's competitiveness.

Perhaps more important is the impact of these 'open source' operating systems in reducing the barrier to entry in the handset market. Google has wide support for its Android platform from the Open Source Alliance, which includes handset makers, mobile operators and hardware providers. The fact that Google improves Android every few months, and considering that any handset provider can choose to adopt this operating system, the barriers to entry into the smartphone market have declined significantly. As a result, computer companies such as Dell Inc., Acer, Asus and Lenovo currently have, or are in the process of launching competitive smartphones (based on Android and/or Windows Mobile) without having any prior experience in the handset market. As long as these operating systems are competitive, so will handsets running them be, as long as the hardware specifications are sufficient. Microsoft's Windows Phone 7 operating system, due in approximately 6 months, will also lower barriers to entry, albeit to a lesser extent. RIM has never experienced this kind of competition.

There is more than one historical precedent for what may befall a technology company with a leading legacy product, maximal margins, and a multiplicity of emerging competitors pleased to operate at lower margins. In the end, there will be fewer operating systems, fewer manufacturers and lower margins for the surviving entities as unit growth rates decline. The rapid decline in pricing, revenues and, ultimately, share price can be studied in the case of Palm Inc., the shares of which we recommended for short sale nine years ago. That company was transformed from a growth company with a \$50 billion

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market capitalization to a struggling technological laggard with a \$250 million market capitalization in around three years as its technology failed to keep up with its competition. While unit growth generally continued, pricing erosion ultimately resulted in declining revenues, which tipped earnings from positive to negative within just a few quarters.

From a valuation point of view, RIM is actually valued at a market capitalization that is more less in line with that of market leader Nokia, even though the latter sells 10x the number of phones that RIM does and spends approximately 9x more in R&D. The reason for RIM's higher valuation is simply a function of its higher profit margins, which are currently around 2x those of Nokia. However, eroding pricing caused by intense competition will likely change this over the next 1-2 years. As the market matures, RIM will likely trade at a multiple based on sales that it similar to Nokia's and Motorola's, or approximately 0.60x versus more than 2.0x at the current time.

Assuming that RIM can grow its revenues 20% per year for the next five years, which represents a rather optimistic scenario, it would reach FY2015 revenues of \$37.2 billion. However, smartphones will then likely represent the vast majority of the handset market and future growth rates will likely be more in line with the overall market at perhaps 5% per year, in terms of units. Consequently, if prices were to erode by merely 5% per year, industry revenues would be flat at that point. If RIM were to trade at 0.60x revenues, it would trade at an enterprise value of just \$22.3 billion, versus more than \$40 billion now. Therefore, it appears unlikely that RIM will meet Wall Street's expectations of around 20% revenue growth per year, while maintaining its wide profit margins and high valuation multiples. Investors are not kind to growth company valuations when the growth comes into question. In sum, in order that RIM shares continue to appreciate (or fail to depreciate), investors must believe the following:

- A) Profit margins will remain at current levels, roughly twice the net profit margin of the leading handset manufacturer, which operates upon a scale of 10x that of RIM.
- B) The many new competitors will not introduce superior products or capture market share despite often vastly superior resources, or that despite their entry RIM is still able to grow rapidly just because of the overall growth in the smartphone market.
- C) It is possible to cut costs at least as, or more, rapidly than the decline of average selling prices, even though ever-more advanced hardware will likely be required to compete successfully.

Consequently, the shares are recommended for short-sale.

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Company Background

Research in Motion was founded in 1984 as an electronics and computer science consulting business by Mike Lazaridis (the current chairman and co-CEO) and Douglas Fregin (a former director of the company). In 1988, RIM became the first wireless data technology developer in North America, and the first company outside Scandinavia to develop connectivity products for Mobitex wireless packet-switched data communications networks, the first wireless network to provide always on, wireless push email services and paging. The company went public in 1997 and introduced its first wireless device, the RIM 950 Wireless Handheld, in 1998. A year later, it launched its BlackBerry wireless email solution, BlackBerry Enterprise Server software for Microsoft Exchange, and the RIM 850 Wireless Handheld device. In 2002, it begun selling the BlackBerry 5810 handset, the first handset marketed under the “BlackBerry” name, which supported push e-mail, mobile telephone, text messaging, Internet faxing, web browsing and other wireless information services.

At the time, it was one of the first convergent devices and arguably the first smartphone. However, we note that this device was crude; there was no built-in microphone or speaker, so to make or receive a call, users had to plug in the included headset. Since that time, RIM has introduced updated models which, while usually lagging the competition in terms of hardware, have always been considered market-leading emailing devices.



BlackBerry 5810

Company Description

Research in Motion is a designer, manufacturer, and marketer of wireless solutions for the worldwide mobile communications market. The company provides platforms and solutions for seamless access to information including email, phone, SMS messaging, Internet and intranet-based applications. RIM derives revenue form the sale of mobile devices, service, software and accessories, which all are marketed under the BlackBerry brand. BlackBerry phones have all the necessary security features required by corporate customers, such as hardware security, remote data removal and remote phone lock which have made them popular business devices.

The company provides two categories of service: the BlackBerry Enterprise Services (BES) and BlackBerry Internet Services (BIS). BES customers are required to purchase software to manage content and end users. Approximately 82% of RIM’s sales are derived from the BlackBerry devices, 16% from the BlackBerry Network service, 2% from software sales (the BlackBerry Enterprise Service – BES management console), and the remainder from other sources such as sales of accessories. BES can act as an e-mail relay for corporate accounts. The software monitors the user’s local inbox, and when a new message comes in, it immediately delivers it to RIM’s Network Operations Center (NOC). The messages are then relayed to the user’s wireless provider, which in turn

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delivers them to the user's BlackBerry device. This is called "push email," because all new e-mails, contacts and calendar entries are "pushed" out to the BlackBerry device automatically, as opposed to the user synchronizing the data by hand or on a polling basis (the process of automatically checking the server for new messages or calendar entries at given time intervals). An alternative to using BlackBerry Enterprise Server is to use the BlackBerry Internet Service. It was developed primarily for the average consumer rather than for the business consumer. This service allows POP3 and IMAP email integration for the personal user. It allows up to 10 email accounts to be accessed, including many popular email accounts such as Gmail, Hotmail, Yahoo and AOL.

There are of course alternatives to RIM's push email technology, since no other platform has a NOC. For example, the push email employed by Microsoft's Windows Mobile uses the HTTP protocol instead of a NOC. The technology simulates typing an URL into a Web browser and then pushing "Enter". However, instead of generating a response immediately, the operating system does that automatically and after waiting a pre-determined number of minutes (8 minutes is the default) it does it again. If there are no new messages, the operating system continues to check the mailbox at the given time interval. If there is a new email, the Windows Mobile smartphone will get a response and then perform an over-the-air active-sync to retrieve the message. Since the Windows Mobile smartphone connects directly to the server in this case, no NOC is necessary. However, battery life is shortened somewhat because of the constant need to connect to the server. These alternatives to RIM's push email system have become considerably more advanced in the past few years, to the point that most consumers (as opposed to corporate users) may not notice the difference. At this rate of improvement, in a year or two, corporate users may not notice a difference either.

While including typical smartphone applications (address book, calendar, to-do lists, etc, as well as telephone capabilities), the BlackBerry is primarily known for its ability to send and receive Internet e-mail wherever it can access a mobile network of certain cellular phone carriers. RIM currently holds approximately a 21% share of worldwide smartphone sales (and a 42% share in the US), making it the second most popular platform worldwide after Nokia's Symbian, and the most popular smartphone among US business users.

Even though the company sells through more than 520 mobile network operators worldwide, 63% of its sales are in North America. This pattern reflects the enterprise orientation of mobile network users in the US and Canada. While traditionally thought of as catering to business users, since mid-2009, more than half of the new additions to RIM's more than 40 million subscribers has been consumers. However, at the current time, RIM is badly in need of a new web browser and an updated operating system in order to compete with iPhone, Android, and Nokia devices. With regard to the web browser, RIM acquired Torch Mobile in 2009, which brought mobile browsing expertise to the company, but so far there has been no update to its browser.

RIM's overseas shipments grew 80% in the most recent fiscal year and accounted for 25% of total shipments. Even so, RIM has only a 9% market share of the overseas

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market, indicating that there is room for near-term expansion. However, margins will likely decline as a result of lower overseas selling prices. RIM generally sells a higher percentage of lower-end phones in Asia and Latin America.

BlackBerry Network

The BlackBerry Network is unique and RIM is the only mobile device provider that bundles network service with a network offering and, as a result, RIM is the only mobile device provider with a significant recurring revenue stream. All the data (but not voice service) received by every RIM device traverses the BlackBerry Network. Management quotes the per-user recurring revenue from the two service offerings to be in the \$4-\$5 per month range for BIS and \$6-\$8 range for BES. Recently, BIS has surpassed BES in terms of subscriber additions, which has contributed to a slight gross margin decline.

As part of the BlackBerry Network, RIM operates data-processing centers which process all the information sent via BlackBerry devices, thereby removing potential threats and providing a level of security that is unmatched in the market. At the same time, the system also helps carriers manage traffic and uses compression technologies which allow more information to be carried over the same network from the carrier. The ability to evaluate content and process a file so a view of it can be provided to the user device can only be done on the BlackBerry network. Therefore, only a smartphone provider with a network (only RIM at this point) or a service provider that has invested in implementing the capability themselves can offer this. This is one example of how the RIM BlackBerry Network effectively offloads bandwidth optimization for operators.

Consequently, carriers generally have a positive bias to BlackBerry devices, as users of such devices generally generate more or less the same revenue per user as users of the iPhone, but while only using approximately 5% of the data compared to iPhone and Android users. Therefore, BlackBerrys results in the same monthly fees as those other devices but much less capital expenditure for network build-out is required of the operator. Most likely, though, this is partly the result of BlackBerry's inferior web browser, music/video download service and application store, which discourage heavy data use. However, to be competitive with iPhone, Android and the forthcoming Microsoft Phone 7.0 devices, the next generation of BlackBerry devices must improve significantly improve in these areas. If so, the data use of its subscribers may soon catch up to the competition. At that time, carriers may be less willing to offer promotions and subsidies for BlackBerry devices. Furthermore, as network data speeds continue to improve rapidly, the usefulness of RIM's data compression will likely diminish.

Products

Most current BlackBerry models have built-in so-called QWERTY keyboards, which are optimized for "thumbing", i.e. the use of only the thumbs to type. The company also offers several models that include a SureType keypad for typing (2-3 characters per key), and two models that are full touch-screen devices (no physical keyboard). System navigation was originally accomplished by a track wheel on the side of the device, which was later replaced by a trackball in the middle of the device. Newer devices such as the Blackberry Bold 9700 or Curve 8520/8530 use a small trackpad for navigation instead of

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a trackball. Modern GSM-based BlackBerry handhelds incorporate Intel's StrongARM or XScale processors, while older BlackBerry 950 and 957 handhelds used Intel 80386 processors. CDMA BlackBerry smartphones generally include Qualcomm processors.

RIM has four main product categories, all of which are considered converged (computing and communications) devices or smartphones:



Storm



Bold



Curve



Pearl

Its Storm device is a touch screen, available through Verizon Wireless in the US, whereas Bold (including Tour) and Curve have QWERTY keyboards, and are available from AT&T, Verizon, T-Mobile and Sprint. Finally, the BlackBerry Pearl has a modified QWERTY keyboard with two to three characters per keypad button and is being offered by AT&T and Verizon at this point.

Market Overview

Worldwide, the Symbian operating system, which is controlled by Nokia, has the greatest market share among smartphone operating systems, albeit it has declined to around 45% from over 60% three years ago. While it is widely considered to be inferior to iPhone OS X and Android, Symbian benefits from support from Nokia, as well as many other licensees. These manufacturers have strong distribution networks in the fast-growing regions in the world where phones using other operating systems are more difficult to obtain. Even so, Symbian's market share will likely continue to decline, as Nokia appears willing to try more advanced operating systems to remain competitive, such as the Maemo (a version of Linux) it uses on its high-end N900 phone.

In the overall market for mobile phones, Nokia had approximately a 36.6% market share in the first quarter of 2010, followed by Samsung at 21.8%, LG at 9.2%, and RIM and Sony Ericsson both at 3.6%. In the US market, the top five handset manufacturers are:

Motorola	22.3%
LG	21.7%
Samsung	21.4%
Nokia	8.7%
RIM	<u>8.2%</u>

Source: ComScore 82.3%

Figures are based on current ownership, not sales

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We note that the top three handset manufacturers in the US are all offering handsets based on Android. In terms of smartphone subscribers in the US, the top five platforms (operating systems) are as follows:

Total Smartphone Subscribers	Nov-10	eb-10	Change
RIM	40.8%	42.1%	1.3%
Apple	25.5%	25.4%	-0.1%
Microsoft	19.1%	15.1%	-4.0%
Google	3.8%	9.0%	5.2%
Palm	7.2%	5.4%	-1.8%

Source: ComScore MobiLens

During the three-month period from December 2009 to February 2010, 45.4 million people in the US used smartphones. This was a quarter-over-quarter increase of 21%, which gives an indication of how rapidly smartphones are displacing older phones. The total size of the US mobile phone market was 234 million in the three month period, according to comScore MobiLens, which means that smartphones made up approximately 19.4% of the overall US market. Globally, smartphone sales were 54 million units in the first quarter of 2010, a 50% increase year-over-year according to Strategy Analytics, and it accounted for 18.3% of the overall global handset market at 295 million units.

There Will Likely Be Operating System Consolidation

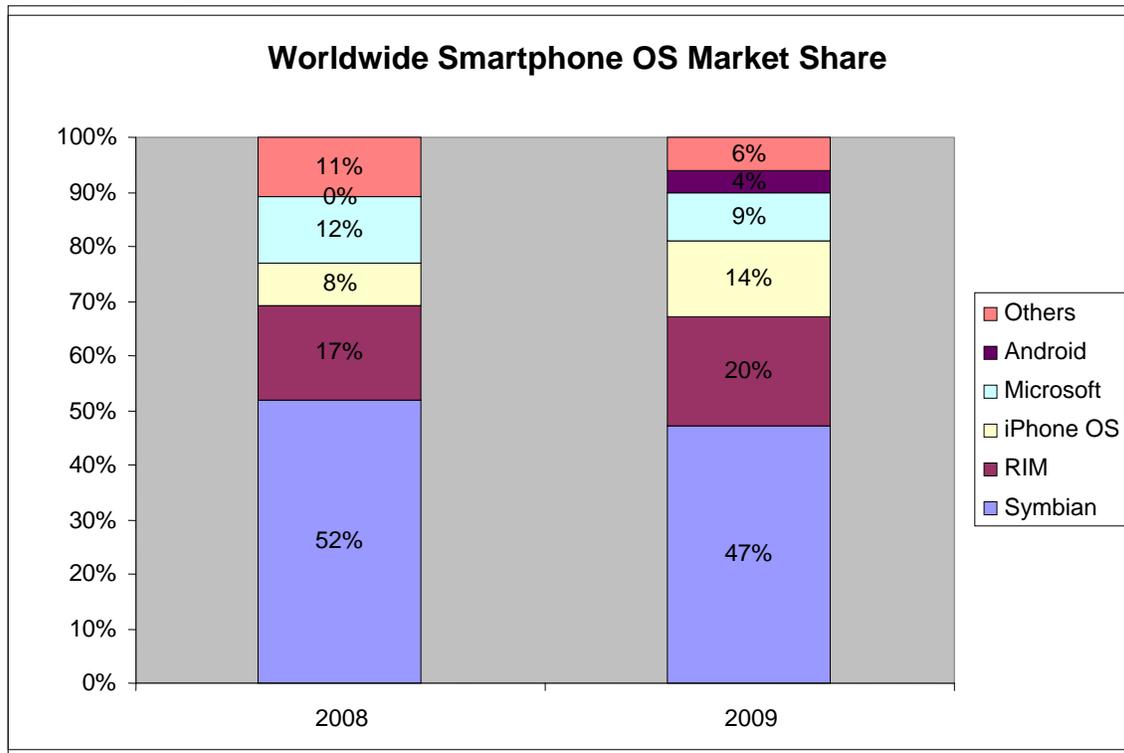
Since the latest smartphones are more like small PCs than actual telephones, it is perhaps useful to review the development in the personal computer industry when it was in its early stages. In the mid-1980s to the early 1990s, there were a great number of operating systems such as CP/M (Altair 8800) TRS-DOS, Apple DOS, Atari DOS, MS-DOS, PC-DOS (IBM), Commodore DOS, Pro-DOS (Apple II), MAC OS, MSX-DOS, Sinclair Q-DOS, Windows, Amiga OS, GEOS (C64), OS/2, and Linux, among others. By the early to mid-1990s, Microsoft had emerged as the dominant operating system provider and only Apple and, to a lesser extent, Linux, currently remain as competitors. Microsoft eventually reached a maximum share of OS shipments of 95% in 2001.

Presently, there are a number of smartphone operating systems, including BlackBerry OS, WebOS (Palm – soon to be part of Hewlett Packard), Symbian, Microsoft Mobile, Android, iPhone OS X and Danger (which produces T-Mobile's Sidekick). Additional operating systems have been introduced in the past year including Maemo (Nokia), MeeGo (Intel and Nokia) and Bada (Samsung). However, as applications for smartphones become increasingly important as a way for an operating system to differentiate itself, application developers will likely focus on the most profitable platforms, which should reduce the number of operating systems to 2-3, similar to the PC market experience. The current situation, with up to 10 different operating systems, will likely only last another 2-3 years before the user experience stabilizes and the industry will self-select a reduced number of surviving operating systems. It is important to note

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that hardware is not likely to be the differentiating factor in determining which platforms will be the survivors. Hardware, such as microprocessors, flash memory, cameras, screens, etc., are largely commodities, whereas the operating systems and the related services are what will ultimately determine which platforms will emerge as the winners.

For example, in 2010, one of the main focuses for the mobile industry is the application stores. That being said, hardware specifications are improving rapidly for market-leading handsets, and if RIM intends to match these improved hardware specifications, its input costs will increase and its margins will likely decline. RIM's operating system may not emerge as a survivor, currently being the third or fourth most popular operating system in terms of applications developments. The top five smartphone operating systems are shown in the chart below:



(Source: Gartner)

While there are similarities between all these operating systems, all of them also have proprietary differentiating features. Google's Android system is naturally well integrated with Google's other services such as search, Gmail, social networking platforms like Latitude, its user video sharing website YouTube, Shopper, and Google Maps (including GPS navigation). In addition, Google recently introduced a new mobile search feature which allows iPhone and Android users to use their current location as part of the search query. Under the traditional search box to which one is accustomed, the user's current location is stated with a highlighted link with "Near me now" by its side (if the user has allowed for the phone to provide location information to Google). Clicking on this link provides information about businesses in the area and also allows the user to search for a business via category (e.g., Restaurants, Bars, ATMs).

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The iPhone software's integration with Apple's iTunes facilitates the transfer of music, movies and TV shows onto the device (through a connection to one's PC). iPhone also has the greatest number of applications in the market by a wide margin.

Nokia's Symbian^3 operating system, which is expected to be a significant update to the current version, is expected to be released this summer. Among its expected improvements is a more user-friendly interface, single-click interaction, flick scrolling, pinch zooming, multi-touch with gestures, faster performance, and multiple home screens. Nokia (which uses mostly Symbian), through its acquisition of NAVTEQ, currently offers its subscribers free turn-by-turn GPS navigation. Other manufacturers using Symbian, such as SonyEricsson, can draw on Sony's experience and patents concerning its camera, video camera, PlayStation, and music player technologies and it has the potential to leverage Sony's media content.

Microsoft's operating system can connect to its Zune media store, as well as to its X-box, and the operating system is easy to sync with the Outlook email and calendar program, and documents and spreadsheets can easily be viewed on pocket versions of Word and Excel.

Finally, it appears that Nokia (through its NAVTEQ subsidiary), Google and Apple are best positioned to exploit the potentially lucrative market for location-based services, such as advertising and services delivered to a user's phone based on their current location, given their GPS/mapping integration.

To compete with all these proprietary services, Research in Motion has its BlackBerry Network, which is the fastest email-delivering technology for smartphones. However, RIM's advantage is shrinking. As mentioned above, the other operating systems are developing better alternatives for push-email services which narrows the performance gap with BlackBerry devices. More importantly, while email delivery used to be perhaps the most important feature of a smartphone, consumers can now prioritize other features such as camera/video camera performance, web browser capabilities and speed, music player, user interface, processing speed and bandwidth, GPS, social networking features, and perhaps most critical, the availability of the most popular applications. With a shrinking lead in email delivery and sub-par performance in most other criteria, Research in Motion is currently in a position of playing catch up.

It is entirely possible that the smartphone operating systems that will ultimately emerge as the winners are based on the same platforms that became dominant in the PC market, namely Windows, Android (based on Linux) and iPhone OS, although most likely not in that particular order. These operating systems are advanced enough to run cutting edge smartphones because of their roots in the PC market and the fact that their backers, Microsoft, Apple and Google (including the Android alliance), have significant resources to develop these operating systems. Particularly in the case of Microsoft, success in the mobile industry is crucial given that mobile devices will most likely begin to displace traditional desktops and laptops. Therefore, Microsoft's upcoming release of Windows Phone 7.0 will be very important for that company to reignite its growth in the mobile

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industry. If these three operating systems indeed emerge as the winners, RIM may have to adopt the Android operating system at some point, as it is an open source system favored by application developers.

Customer Preferences

In an average month during the December through February 2010 time period, 64% of mobile subscribers in the US used text messaging on their mobile device, which was an increase of 1.9% versus the prior three-month period. Browsers were used by 29% of subscribers (up 2.4%), while subscribers who used downloaded applications made up 27% (up 1.8%). Access of social networking sites or blogs continued to grow, increasing 2.9% to 18% of mobile subscribers, according to ComScore. Finally, 13.1% of users listened to music on their mobile phones, up 1.3% versus the prior three month period. These are fairly rapid movements given that the numbers represent quarter-over-quarter increases. They are a result of the rapid proliferation of smartphones and the ease of use of these services. Based on these trends, RIM, which is considered primarily an email device with a subpar browser and music player, appears to be falling further behind the competition.

A separate research study shows that customer satisfaction is greater among users of smartphones and handsets with touch screens than among those whose wireless devices requiring other input methods (keyboards), according to J.D. Power. The surveys also found that both smartphone and traditional-handset owners are increasingly using their phones for entertainment and to share photos, music, and videos with family, friends, and social networks. Among smartphone users, 50% indicated that they share multimedia, while 25% of traditional-handset users said the same. The surveys were based on feedback from 13,590 owners of traditional mobile phones and 4,480 smartphone owners who had used their current phones for less than two years. Both surveys were conducted between July and December.

Competitive Position

Before the iPhone was introduced in the summer of 2007, RIM had outsold Palm to become the dominant smartphone provider, mostly because of its superior messaging capabilities. The iPhone changed the industry dynamics by stimulating consumer-driven demand sufficiently that many IT managers were persuaded to accommodate it as a corporate device as well. Once the iPhone began to fuel the consumer use of the mobile Internet, it stimulated further entry of similar phones and application stores. The industry is currently in the midst of this transition. Consequently, the success of the iPhone has changed the value proposition of RIM sufficiently that Apple has now surpassed RIM in terms of industry value share given its ASPs of around \$600, versus approximately half of that for RIM. Perhaps more importantly, the success of the iPhone has changed the competitive landscape in the past year, with smartphones running Symbian, Windows Phone, webOS, Android and other Linux-derived operating systems coming to market

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with features similar to those of the iPhone. As a result, BlackBerry's current operating system and web browser have become outdated, which may soon become evident in sales data.

Competitor's Devices Are Superior on Paper

As discussed, RIM is experiencing intensifying competition as every handset manufacturer is trying to gain market share in the rapidly growing smartphone industry. Recognizing that this segment is forecast to grow 20-50% per year over the next few years, substantial resources are being invested in product development. While the expected upgrade to the iPhone has not been announced yet (it is expected to be released this summer), we can compare RIM's most advanced devices, the BlackBerry Bold and the BlackBerry Storm, to the recently announced HTC EVO 4G, which is expected to be released on the Sprint network in June.

	BlackBerry Bold	BlackBerry Storm	HTC Evo 4G
Screen Size	2.43"	3.25"	4.30"
Resolution	480x360	480x360	800x480
Input	Keyboard	Touch Screen	Touch Screen
Operating System	BlackBerry OS 5.0	BlackBerry OS 5.0	Android 2.1
Processor	624MHz	528MHz	1.0 GHz
Network	3G	3G	4G
Camera	3.2 Megapixel	3.2 Megapixel	8 Megapixel
HD Video Camera	No	No	Yes
Weight	4.8oz	5.64 oz	6oz
RAM Memory	256MB	256MB	512MB



EVO 4G

Another advantage of the Evo 4G over the BlackBerry devices is that it is equipped with the Sprint hotspot application, by which the device acts as a WiFi hotspot, which is obviously aided greatly by the WiMAX speed, and can in this capacity connect up to eight concurrent devices (such as laptop computers) to the Internet wirelessly. Clearly, the Evo 4G will pose a formidable threat to high-end BlackBerry devices on the Sprint network when it goes on sale this summer.

While there's no formal definition of the various generations of cellular networks as far as data speed is concerned, the 4G networks (WiMAX and Long Term Evolution) have theoretical top data speeds of around 100Mbps, while in reality users can expect perhaps 4-8Mbps over the initial year or two until the next upgrade cycle. In contrast, today's 3G networks have theoretical top data speeds of 14Mbps while most users experience actual data speeds of 0.9-1.5Mbps. Therefore, it is fair to say that the upgrade from 3G to 4G should result in data speed improvements of approximately 5x. 3G, in turn, improved data speeds more than 10-fold compared to the previous 2.5G standards (such as GPRS and Edge).

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Apps

One of the most significant differentiating factors for operating systems is the application (apps) store accessible to users of that operating system. If well executed, these stores can be a competitive advantage which will attract customers. The clear market leader today is Apple's App Store with 185,000 apps available and over 3 billion downloads over the past 20 months. Google's Android Market has also grown rapidly and has approximately 50,000 apps at the current time. While Nokia's Ovi Store got off to a slow start it currently has approximately 6,500 applications and daily downloads of 1.5 million/day, up from 1 million/day. In fourth place, RIM's application store had 5,662 apps available as of March 2010 while Microsoft has only around 1,200 apps available in its app store.

From a developer's point of view, the Android platform is based on open source Linux software and, therefore, enables greater flexibility for programmers. On the other hand, developers' relative apathy for BlackBerry and Microsoft-based mobile phones is troubling for those companies. A recent survey shows that developers are spending their time primarily writing apps for the iPhone and Android platforms. Research firm Appcelerator surveyed more than 1,000 developers and found that 87% were interested in developing apps for the iPhone, 81% for Android phones, 53% for the iPad, 43% for the BlackBerry, and a 34% for Windows Phone 7. The differences between Android/iPhone and RIM/Microsoft are magnified because of the feedback loop that is at work in the mobile industry. If not enough high quality apps are written for a certain platform, consumers will not download enough apps to entice developers to write more applications for the platform which, in turn, makes the platform less attractive to consumers. Apple and Android have long since reached critical mass in this regard while RIM and Microsoft have not, and the actual number of applications in development for the latter two has declined year-over-year, which is not a good sign for the future.

Business Competition

While the iPhone and Android-based handsets changed the consumer market three years ago, the operating systems have now matured to the point at which they are beginning to focus more on the corporate market. To that end, Google has announced that the next version of its Nexus One device will target business users and might have a physical keyboard. A business focused Nexus One that incorporates Google's Apps productivity software has the potential to negatively impact RIM and Microsoft primarily. Google Apps refers to Google's web-based office software that includes e-mail, calendar, word processing, spreadsheet and collaboration programs. Google Apps continues to win new business customers, aided by its cloud-based delivery model, for which applications are accessed over the Internet and maintained in Google's data center rather than on the computers of apps customers. Cloud-based services can provide cost and maintenance savings over traditional on-premise software. Business adoption of Google Apps can, therefore, aid sales of the Nexus One phone to business customers. If this concept is successful, all Android-based handsets may soon use this capability to compete with RIM.

In addition, the new enterprise features in the recently announced iPhone OS 4 include improvements in security, scalability and compatibility. The new Mobile Device

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Management service can be integrated with third party servers to wirelessly configure, query and even wipe or lock managed iPhones. Furthermore, OS 4 enables enterprises to securely host and wirelessly distribute their own in-house developed apps to employees. The new Data Protection feature uses a user's passcode as an encryption key to protect mail messages and attachments stored on the iPhone. iPhone OS 4 will also provide the option to set a longer, more complex passcode, making iPhone and its data more secure. Finally, iPhone OS 4 allows IT managers to set up multiple Exchange ActiveSync accounts, is compatible with Exchange Server 2010 and includes support for forthcoming SSL VPN applications from Juniper Networks and Cisco.

According to a report from ChangeWave, RIM still dominates the enterprise mobile phone market with a market share of approximately 76%, while Apple is second with a market share of 14%. Consequently, as Android and iPhone now target the enterprise market, RIM clearly has the most to lose. In fact, a study was released recently by Crowd Science that showed nearly 40% of Blackberry users would be willing to switch to Apple's iPhone. Crowd Science also reported that, asked specifically if they would swap their present phone for Google's new Android-based Nexus One, 32% of Blackberry users said "yes," compared with just 9% of iPhone users. This clearly indicates that BlackBerry users increasingly view their devices as less attractive than the competition.

Perhaps part of the reason can be that both Android users and iPhone users were found much more likely than Blackberry users to use their phones only for personal use (32%, 28% and 16% respectively). On the other hand, 7% of Blackberry users use their phone only for business, with that category of user minimal with iPhone (1%) and non-existent in the Android base, according to the survey. Around 90% of Apple's users indicated that they would consider purchasing another iPhone as their next phone. Apple Insider stated that the study also showed 97% of iPhone users would recommend the product to their friends. More importantly, the study also found that 52% of Blackberry users would also recommend the iPhone to friends. That is, perhaps, part of the reason why the iPhone has an average selling price of approximately \$600 while the BlackBerry average is approximately half of that.

Brief Overview of RIM's Competitors

It should be noticed that RIM is really competing on two fronts. First, its proprietary operating system is competing with those of Apple, Google, Nokia and Palm, among others, and as the competition intensifies, independent application developers may ultimately decide which of these platforms will become dominant. Second, RIM is also competing based on its BlackBerry devices, which are a combination of their operating system, commoditized hardware, and proprietary as well as third-party software applications.

Microsoft

Despite being used by major handset manufacturers such as Nokia, Samsung Electronics and Taiwan's HTC, Microsoft's market share has been declining. This is most likely very troublesome to the company since, in a way, mobile phones are displacing laptop computers. If this trend continues, and if devices such as the Apple iPad and a similar

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existing device from Asus as well as potential additional devices running Android are developed, Microsoft may soon experience declines in its core business as regular personal computers are displaced. Consequently, Microsoft is most likely willing to invest substantial amounts to make its upcoming Windows Phone 7 operating system a success. Currently, the Windows Mobile 6.5 operating system is ranked just fourth in the global smartphone market, according to data from Gartner, and that research firm has also predicted that the windows platform's worldwide market share will decline further to 8.1% by the end of this year, while Android will gain 3% to reach an 8.1% global share as well. In North America, research firm Canalis estimates that sales of Microsoft's market share will fall to a 7.2% market share, while Android will reach 18.9% and Apple 21.3%, while RIM is expected to maintain its lead at 43%. One significant difference is that Microsoft is charging hardware makers for its operating system while Android is offering its for free. As mentioned above, there is a risk that if Microsoft cannot show that its platform will compete and regain market share from Apple and Android, developers may be reluctant to write apps for the Windows platform which, in turn, will reduce the platform's appeal to consumers.

Apple

Apple's iPhone is currently only offered by AT&T in the US. The average iPhone user uses considerably more data compared to BlackBerry users, or any other brand of mobile phone. Partly as a result of the heavy data usage, AT&T's network has become overloaded in certain cities such as San Francisco and New York, which has resulted in slow connections, dropped calls and, as a consequence, frustrated users. As a result, Apple has likely lost potential customers. Some of these customers may well have purchased BlackBerry devices from Verizon Wireless instead. Now, however, it appears that Apple will introduce an iPhone for the Verizon Wireless network in the next six months, as reported by the Wall Street Journal. This would be significant, as Verizon would offer an alternative to frustrated AT&T iPhone users as well as potential iPhone buyers that prefer the Verizon network. As a result, many would-be BlackBerry customers at Verizon may choose the iPhone instead when (if) this device becomes available.

Apple recently announced an update to the current iPhone operating system known as OS X 4.0, which is expected to be available this summer. One significant update is that iPhone users will be able to multitask, since the operating system will allow applications to run in the background. This will, among other things, introduce location awareness, which could change the user experience significantly as these applications are developed. For example, iPhone users will soon be able, electively, to continuously report their location to their social networks. This could be an attractive feature to young adults and teenagers, but it also opens up the market of location-based advertising to mobile phones. Other new features of iPhone OX 4.0 include folders to better organize and access apps; improved mail functions with a unified inbox, fast inbox switching and threaded messages; enhanced Enterprise support with even better data protection, mobile device management, wireless app distribution and more; Apple's new iAd mobile advertising platform; and iBooks, the new ebook reader and online bookstore recently debuted on the iPad.

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Apple recently announced that it grew iPhone shipments to Asia/Pacific by 484% year-over-year in the most recent quarter and growth in Europe was 183% year-over-year. While the new operating system is a significant improvement from a software point of view, Apple is expected to introduce its next version of the iPhone in June, and this phone will likely represent a substantial improvement in hardware as well. Since RIM has not announced any new devices, and given the usual lag time of many months between announcement and availability, it is reasonable to assume that the new iPhone will be available long before RIM can have an equivalent product available.

Google

In 2005, Google acquired Android Inc., a startup company that was developing a mobile operating system based on the Linux kernel. The company filed several patent applications in 2007, and in October 2008, phone manufacturer HTC released the first Android-based smartphone. Earlier this year, Google introduced the Nexus One handset, its first company-branded Google phone. Consequently, in under five years, Android has become the second-most important mobile-app platform in the US after the iPhone.

With its Android operating system, Google is attempting to introduce the concept of unlocked phones and open operating systems to the US market. Unlocked, unsubsidized phones are common in other countries, especially in Europe, but so far they have not been successful in the U.S., where carriers have historically offered phones to consumers at discounted prices in exchange for long-term contracts. As a result, the Nexus One is not subsidized by a carrier. However, buyers of this handset generally pay considerably lower monthly rates because of this and do not need to lock themselves into a two-year contract with their carriers

While Research in Motion has its own operating system for the BlackBerry, Android has a significant advantage in the form of its Open Source Alliance. The Open Source Alliance is a consortium of a variety of companies that back Android, because it employs an open-sourced operating system. The idea of an open-sourced operating system is that people can readily write software for it. Android is based on the Linux operating system, which is itself an open-sourced operating system. Among the members of the Open Source Alliance are Google, Motorola, Qualcomm, Texas Instruments, Samsung, LG, T-Mobile and NVIDIA. Perhaps most troubling for RIM, is the number of mobile operators that are backing the Open Source Alliance. These are China Mobile, KDDI, NTT DoCoMo, T-Mobile, Sprint Nextel, Telecom Italia, Telefonica, Vodafone and China Unicom. As a generalization, these companies tend to have a strong presence in the emerging markets, where there is a lower installed base of handheld devices and/or cellular phones and, most likely, less customer brand loyalty. Consequently, Android is well positioned to gain market share.

Android has issued several updates to its operating system, and new features include video recording and sharing (via its YouTube subsidiary), a text-to-speech engine, a speech-to-text engine, fast web browser with Flash support, and Google Maps integration. In principle, there's nothing to limit BlackBerry from adding such features on

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its phones, but the difference is that it is difficult to imagine how RIM will successfully compete against the combined resources of all of the members of the Open Source Alliance and all of the third party developers that are willing to write software for Android.

At the end of the day, Google will likely continue to issue frequent updates to its Android platform (the next iteration, known by the code name Froyo, or Android 2.2, will be introduced shortly), and as it does so, all handset manufacturers using Android will benefit, since their devices become more competitive vis-à-vis BlackBerry's products simply because of the update to the operating system. Android will most likely become one of the dominant operating systems in the market and as more handset manufacturers use it, product differentiation will be reduced to the hardware specifications, just as the case is in the PC market. Consequently, competition will become increasingly based on price, which should result in lower average selling prices as well as profit margins for smartphones in general.

Nokia and Sony Ericsson

Nokia is the largest handset manufacturer in the world and ships more than 400 million phones annually, many to customers in emerging markets such as Africa, Asia and South America. The company has unsurpassed access to the end consumer with a large installed base of approximately 1.4 billion handset users globally, and its Symbian operating system holds around a 47% smartphone market share. In addition, the company recently acquired browser company Novarra, most likely because it recognizes that browser performance is one of the differentiating features of future smartphones.

Sony Ericsson has refreshed its portfolio and is moving from feature phones to smartphones in an attempt to catch up with RIM, Apple and Nokia. To this end, the company has announced high-end smartphones such as the Xperia 10, Xperia 10 mini, Xperia 10 mini pro (all using Android), as well as the Vivaz (using Symbian) and Xperia X2 (using Windows 6.5), which all are expected to ship in the second quarter. These phones will all compete with RIM in the high-end.



Xperia X10 (front and back)

Nokia, on the other hand, recently announced three new smartphones that are priced very aggressively: the C3 model with a full keyboard priced at just €90 excluding taxes and subsidies, which most likely represents the lowest-ever price point for a smart phone; the C6 model, which has a so-called "slider" keyboard, and E5, which is a lower-priced version of Nokia's E72 model with a full keyboard, priced at €220 and €180,

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respectively. At these price points, these Nokia phones will likely compete very well with RIM's offerings. In particular, the E5 should be a formidable threat to RIM's Curve 8520 model. Both phones are very similar in terms of their form-factors and specifications, but the E5 is equipped with 3G, versus only 2G for the RIM phone. In addition, the E5 has 7.5 hours of talk time versus 4.5 hours on the Curve, a 5 megapixel camera compared to a 2 megapixel camera on the RIM device and a somewhat faster microprocessor. In addition, the price of the E5 is approximately \$15 below that of the Curve 8520.

	<i>Nokia E5</i>	<i>Curve 8520</i>
Est. Wholesale Price	\$235	\$250
Radio	3G	2G
WiFi	Yes	Yes
Weight	4.44oz	3.70oz
Talk Time	7.5 hours	4.5 hours
Screen Size	2.4 inches	2.5 inches
Resolution	320x240	320x240
Camera	5 Mpxl	2Mpxl
Processor	600MHz	512MHz
Onboard Memory	256MB	256MB



Nokia C3



Nokia C6



Nokia E5

While none of these Nokia phones can be considered high end, they highlight Nokia's strategy of bringing smartphones down in price sufficiently to drive mass adoption. Even in Europe and Western Europe, fewer than 30% of the handsets currently sold are smartphones, while in emerging markets the corresponding percentage is closer to 10%. With manufacturing efficiencies derived from its substantial economies of scale, Nokia could dominate at least the low end of the smartphone market, which should force RIM to reduce prices and thereby pressure its profit margins.

Samsung, LG and HTC

The second largest handset manufacturer in the world, Samsung, has introduced several high-end smartphones recently, including the Memoir, Instinct, Omnia and Behold, and it is about to release its Wave device, using its proprietary Bada operating system, as well as its high-end Galaxy handset, which runs Android (see picture below). Samsung will likely invest substantial resources to maintain its number two position globally, and doing so requires increasing efforts in the smartphone category.

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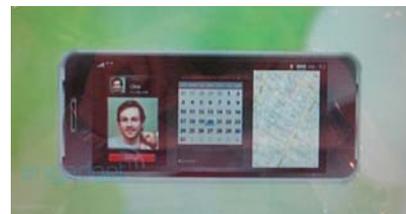


Samsung Wave



Samsung Galaxy

South Korea-based LG Electronics is also focusing substantial resources on the development of smartphones, such as its recently announced GW990, which has an unprecedented 4.8" screen and is the first device to run the MeeGo operating system (developed by Nokia and Intel), as well as the Eclipse, a touch screen device which runs the Android operating system and has a slide-out keyboard.



LG GW990

The specifications for this device include a 1GHz processor, a 800x480 touch display, a 5 megapixel camera, and a high-definition video camera. These specifications are average or perhaps even modest compared to the other devices mentioned here from HTC and Samsung, but it is apparent that, at least with respect to hardware, all these announced devices have specifications that far exceed those of the existing BlackBerry devices. While BlackBerry will still perform the messaging features better, there will likely be significant pressure on margins, both in the high and low ends of the market.

Taiwan-based HTC is a rapidly growing handset provider which has been very successful, particularly with its Desire device, which has been referred to as the best Android-based system on the market. In addition, HTC is just about to launch its "Droid Incredible" smartphone for the Verizon network. Review site Engadget called it the best Android-based phone yet. However, that may be temporary, as HTC is also getting ready to launch the EVO 4G, which is discussed in detail above, on the Sprint network. With these high-profile launches of smartphones, which appear well positioned to compete with the iPhone and any other high-end phone, HTC is bound to gain market share.



HTC Droid Incredible

Motorola

Motorola's Droid handset has been a best-seller on the Verizon network since it was introduced in October 2009. The company has announced plans to deliver more than 20 new smartphones in 2010. Interestingly, the company is well documented in having said it will be focusing only on Android and Windows Mobile.

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New Competitors

What Android (and to a lesser extent Windows Mobile) has accomplished is to significantly reduce the barriers to entry to the smartphone market. For example, Dell Inc., the world's third largest computer maker, has at least five new handsets scheduled for introduction over the next year, one of which will run Windows Phone 7, and the remainder Android. These devices, known as the Aero, Lightning, Thunder, Flash and Smoke, may make Dell a significant smartphone provider, even though the company has no experience in the mobile handset business. Dell's Lightning handset will, according to CNET, run the new Windows Phone 7 operating system, feature a large 4.1" OLED (Organic Light Emitting Diode) multi touch screen, a 1GHz processor, 1GB RAM memory, and a 5 megapixel camera.

Other personal computer makers have similar plans. Acer, the second largest PC maker in the world, Lenovo, which is the fourth largest, and Asus, which is the fifth largest, already offer complete lines of smartphones, using both Windows Mobile and Android. It is interesting to note that Asus is collaborating with Garmin to gain a competitive edge for its handsets in GPS navigation. Therefore, it appears that as long as the Microsoft and Android operating systems can be used by more or less any potential manufacturer, intensifying competition in the next few years is all but certain.

Since the handsets are becoming more like computers than phones, we should not be surprised to find that the major PC makers are also becoming competitive handset makers. In fact, we should be surprised that there are not yet any competitive phones from the world's largest PC manufacturer, Hewlett Packard. That company actually still sells the device formerly known as Compaq iPaq, which was once a competitor to the original Palm Pilot. Of course, these days, the HP iPaq Glisten is a 3G phone running Windows Mobile 6.5, with a full QWERTY keyboard, a 3.1 megapixel camera and a 2.5" display. As the picture indicates, the phone looks almost exactly like a BlackBerry.



HP iPaq Glisten

However, the main shortcoming of this phone is that it runs the aging Windows Mobile 6.5 operating system, which is in need of an upgrade. That upgrade arrives in approximately six months with the arrival of the Windows Phone 7 operating system. At that time, it is likely that Hewlett Packard will also update the iPaq to run the new operating system, and perhaps offer Android versions as well, and perhaps new touch screen models, given the company's market-leading PC touch screen technology. We note that the iPaq has until now primarily been marketed to corporate users. However, if Dell is successful with its smartphone products, it is likely that Hewlett Packard will increase its marketing as well as research and development efforts to introduce more competitive handsets. Perhaps because it realized that it was lagging its competition, Hewlett Packard recently announced that it is acquiring Palm. This improves the chances of WebOS becoming one of the surviving

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operating systems as, prior to this announcement, applications developers were likely reluctant to produce software for WebOS as its future was uncertain at best. This clearly reduced the platform's appeal to consumers. Now, HP/Palm will likely be a formidable competitor in the smartphone market and a great threat to RIM's market share and ASPs.

Valuation

A Comparison To Palm

Over nine years ago, our sister publication, the *Contrarian Research Report*, issued a sell recommendation on Palm Inc. That company was then the undisputed leader in the PDA (personal digital assistant) market, and had held that position since the late 1990s. Palm's sales had grown rapidly, from \$272 million in FY1998 to \$1.56 billion in FY2001. However, primarily as a result of increasing competition and a failure to add features to its devices (Palm was late to add phone functionality, among other things), sales began to decline in late 2000. This decline accelerated into FY2003 as sales reached \$872 million for that fiscal year, a 44% decline compared to FY2001:

(in thousands)	FY2003	FY2002	FY2001	FY2000	FY1999	FY1998
Revenues	\$871,946	\$1,030,831	\$1,559,312	\$1,057,597	\$563,525	\$272,137
Gross Margin	31.6%	36.8%	14.4%	42.0%	44.0%	42.0%
Operating Margin	-24.7%	-10.6%	-36.7%	5.8%	8.6%	2.4%
Earnings	\$(442,585)	\$(82,168)	\$(356,476)	\$45,910	\$29,628	\$4,171
Net Profit Margin	-50.8%	-8.0%	-22.9%	4.3%	5.3%	1.5%
Sh. Equity	\$255,786	\$690,848	\$734,152	\$1,029,188	\$34,018	

(fiscal year ends May 31)

The extent to which Palm's gross and operating margins worsened during this period is noteworthy. After having recorded fairly a steady gross margin of 42-44% between FY1998-FY2000, it declined to just 14.4% in FY2001. This was largely driven by excess inventory expenses, and would have been 31.2% excluding these expenses. Gross margins remained at those levels for three years. Also, Palm's average selling price declined from \$318 in the fourth quarter of 2000 (a level similar to RIM's current ASP) to just \$220 one year later. As the table below indicates, the decline in ASPs contributed to a narrowing of the gross margin by 1,050 basis points:

	Q4-00	Q1-01	Q2-01	Q3-01	Q4-01
ASP	\$318	\$267	\$248	\$224	\$220
Gross Margin	38.5%	38.1%	36.1%	32.5%	28.0%

As shown in the example of Palm, ASP declines can have a devastating impact on a company's revenue growth and, earnings can evaporate rapidly when margins decline. The case of Palm is an indication of what could happen to a rapidly growing technology company once it loses its competitive edge. RIM could follow this path as well if competition intensifies and the company is slow to introduce the required upgrades, which appears to be the case.

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There is a strong possibility that RIM will experience deteriorating margins as it, like Palm in 2001, is facing mounting competition and rapid technological change. Its average selling prices have declined from \$380 in 2005 to just over \$300 at the current time, a 20% decline in five years, or approximately 4% per year. That means that RIM needs sales growth of 4%, in terms of units, just to avoid a decline in revenues.

More realistically, given the efforts by Nokia in particular to reduce prices of smartphones, one might assume that RIM experiences a 20% ASP erosion over the next two years. In that scenario, its average selling price will be \$244 in FY2012. Since Wall Street expects RIM to grow its revenues by 47% between FY2010 (which just ended) and FY2012, the company would actually need to sell 88% additional units in FY2012 compared to FY2010, assuming that all of its revenues come from handset sales, to meet these forecasts. RIM shipped 10.5 million units in the fourth quarter of FY2010, indicating a run-rate of 42 million units on an annualized basis. To meet these forecasts, assuming a 20% decline in ASPs, the company would need run-rate sales of 77.2 million units two years from now (again, assuming that all of its revenues were to be derived from handset sales). Given the intensifying competition, it will be difficult for RIM to both contain its ASP erosion to just 20% over the next two years, as well as to boost its unit sales by 88%. However, even if it is successful in both endeavors, its profit margin will likely decline significantly as a result of the lower ASPs, reducing or even negating its profit growth.

Peer Valuation

While there are few pure-play companies in the mobile handset market, it is still useful to compare Research in Motion to the North American market leader and the worldwide market leader, Motorola and Nokia:

Company	Symbol	Price	2010 P/E	2011 P/E	EV/10 Sales	P/B	P/Tan Book	Market Cap
Motorola	MOT	\$7.00	30.4x	15.2x	0.51x	1.65x	2.33x	\$16.2 B
Nokia	NOK	\$12.15	12.1x	10.4x	0.65x	2.41x	6.01x	\$45.2 B
			21.5x	13.0x	0.60x	2.08x	4.24x	
Research in Motion	RIM	\$72.00	13.2x	11.9x	2.08x	5.42x	6.73x	\$41.2 B

Sales of mobile devices constitute around 32% of Motorola's overall sales and 70% of Nokia's overall sales, while 80% of RIM's revenues are derived from new device shipments. Perhaps the most interesting observation that can be made from the table above is that RIM has almost the same market capitalization as Nokia, even though the latter is the undisputed leader in worldwide handset sales and also generates substantial revenues and earnings from its NAVTEQ and Nokia Siemens Networks subsidiaries. Nokia is on a run-rate to sell 431 million handsets this year, whereas RIM's run-rate is less than 10% of that. Part of the reason for RIM's higher valuation multiples is that Nokia's average selling price was only €62 (or \$84) in the most recent quarter compared to \$311 for RIM. Furthermore, we note that RIM spent \$965 million (6.5% of revenues) in FY2010 on

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Research and Development while Nokia spent \$8.5 billion (14.4% of revenues). This is important as it indicates that Nokia may improve its products at a faster rate.

Another interesting observation is that while RIM trades in line with Nokia based on 2011 earnings, it trades at more than 3x the EV/Sales multiples of Nokia. The reason, again, is clearly that RIM currently generates wider profit margins. However, if its ASPs will indeed contract, so ultimately will its profit margin. Nokia had an operating margin in its Devices segment of 12.1% in its recently reported first quarter of 2010. This should be compared to RIM's operating margin of 24.8% in its fourth quarter of FY2010. Consequently, if RIM's operating margin were to decline to Nokia's level, its earnings could decline by over 50%.

Consequently, while RIM's current P/E multiple is fairly modest, it appears that its earnings estimates for the next two years will be difficult to reach. Rather, earnings estimates will likely be revised downward, mostly because of declining ASPs which, in turn, will be caused by pricing pressure stemming from the fact that RIM's products are increasingly losing differentiation as end-users' focus shifts from email, where RIM leads all competitors, to applications, operating systems and browser capabilities, and hardware among other features, where RIM lags most competitors.

One example of this intensifying competition can be experienced at Verizon Wireless. RIM's sales have been negatively impacted by that carrier's support for Android and, as a result, strong sales of the Motorola Droid have reduced demand for RIM's phones at Verizon. The Droid is primarily impacting sales of RIM's touch screen, Storm 2, at Verizon which, in turn, is eroding RIM's ASPs, since it needs to reduce prices to remain competitive. To make matters worse, Android competition in the US is bound to intensify significantly in the US over the next few years as the Google-owned operating system is consistently ranked as the best or second best (after iPhone) operating system. RIM likely derives approximately 20-25% of its overall revenue from Verizon Wireless, so any sales declines at that carrier will have a meaningful impact on overall sales. Perhaps most importantly, as far as Verizon is concerned, is that although it does not currently offer the iPhone, several credible sources, among them the Wall Street Journal, suggest that Apple is developing an iPhone for the Verizon network, which is expected to be introduced in the fall. If so, many current Verizon BlackBerry users will switch to the new iPhone and cause further declines in BlackBerry sales from Verizon. Consequently, if Verizon can serve as a model for all of the carriers that sell BlackBerry devices, it appears more than likely that RIM's lack of competitiveness, and the comparative lack of differentiating features will result in lower ASPs and/or lower market share.

Best Case Scenario

If RIM can grow its revenues at 20% per year over the next five years, it would reach FY2015 revenues of \$37.2 million. However, because of the anticipated smartphone growth, almost the entire handset market will then be made up of smartphones, versus less than 20% now. As a result, the future growth characteristics will be aligned with the

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overall handset market, which currently grows at around 5-6% per year, a rate that could be even less in five years' time, given that saturation levels will have increased and most demand for handsets will be for replacements rather than new subscribers.

If, at that time, average selling prices for handsets erode by 5-6% per year, which certainly is not out of the realm of possibilities, it is possible that industry revenue growth will be close to zero from 2015 onward. The slower (or complete lack of) growth will likely manifest itself in lower profit margins and lower valuation multiples. Assuming that RIM can achieve an average hardware company net profit margin of 5% of revenues, which is consistent with those of Dell and Hewlett Packard, it would earn just \$1.86 billion in profits in FY2015, even after having grown 20% per year in the next five years. Perhaps the market would value RIM in line with Nokia's current valuation, at 1.1x revenues and 14x earnings. In such a case, RIM's market capitalization would be between $\$37.2 \times 1.1 = \40.9 billion and $\$1.86 \times 14 = \26.0 billion, or in the range of \$71.60 - \$45.60 per share.

This really should be considered an optimistic scenario, as it assumes that the company can grow its revenues 20% per year for the next five years, regardless of the competitive environment, product obsolescence concerns and lack of differentiating features. In other words, if the company is as successful, or even more successful than Wall Street is currently projecting, in less than five years' time, its growth rates are bound to slow significantly and most likely turn negative. Consequently, over the next few years, RIM's valuation multiples should begin to reflect the fact that its rapid-growth phase is ending as a result of market saturation.

Investment Summary

While the sheer growth of the smartphone segment itself will likely keep RIM's sales growing in absolute numbers over the next few years, the smartphone market is changing rapidly and it appears unlikely that RIM will be able to compete efficiently in an environment of slower growth, lower margins, fierce competition, and rapidly changing technology while at the same time meeting Wall Street's aggressive growth forecasts.

While RIM is experiencing severe competition in the high-end smartphone market, primarily from companies such as Apple and handset makers using the Android operating system, it is also experiencing tougher competition in the low-end segment, primarily from the industry dominant Nokia, which appears to have cheaper and more powerful smartphone products. While this will not prevent RIM from continuing to sell a large number of handsets, or even to grow the number of units it ships, competition is likely to reduce average selling prices, which will result in substantial declines in profitability.

In order to purchase RIM's shares with a view of profit, one needs to believe the following propositions, among others:

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- 1) Profit margins will remain at current levels, which represent approximately 2x the net profit margin of leading handset manufacturers such as Nokia, which operates upon a scale of 10x that of RIM.
- 2) The many competitors that now exist, and the new competitors entering the market, will not introduce superior products or capture market share despite the vastly superior resources of many of these firms. Alternatively, to the extent that they do so, RIM is still able to grow rapidly just because of the overall growth in the smartphone market.
- 3) It is possible to cut costs at least as rapidly or perhaps more rapidly than the decline of average selling prices, even though ever-more advanced hardware will likely be required to compete successfully.

RIM's current weakness stems from its inability to correctly anticipate the proliferation of the consumer market and its failure to develop products with more differentiated consumer functions. Of particular note is its web browser performance. There is also the potential for longer-term declining ASPs and profit margins as RIM's product mix may shift to lower and mid-tier priced smartphones, because of a relative lack of high-end hardware. RIM will ultimately need to sell devices with larger screens, more memory, faster processing and higher intellectual property costs, which will likely reduce its gross margins compared to the current situation.

Ultimately, Android, OS X and Symbian-based phones can provide email functions almost as well as BlackBerry devices can (they all offer some version of so-called "push" email, but none is exactly as efficient as RIM's solution), so the question becomes, at which point does the handset's other features become more important to the user base? To retain those users who seek more from a smartphone, including corporate customers and consumers who want larger screens, more sensitive touch screens with multi-touch capabilities, a more intuitive user interface (operating system), social networking features, access to an application store with a wide selection, better camera/video camera functionality and a more useable web browser, technological improvement is crucial. Therefore, to be competitive, RIM needs to upgrade both hardware and software, and at the same time, lower the price to the end user. Needless to say, this should have a negative impact on its profit margin. RIM's software and browser upgrades are rumored to be six months to one year away, and when they arrive, the user experience could improve markedly. These upgrades are no doubt important to RIM; however, they may arrive too late, especially considering that the competition is improving rapidly as well. Consequently, RIM must be regarded as a company that, at the moment, is rather vulnerable and, consequently, the short-sale of its shares is recommended.

THE DEVIL'S ADVOCATE REPORT

Research In Motion Limited

Incorporated under the Laws of Ontario
(United States dollars, in thousands except per share data) (unaudited)

Consolidated Statements of Operations

	Three months ended			For the year ended	
	February 27, 2010	November 28, 2009	February 28, 2009	February 27, 2010	February 28, 2009
Revenue	\$4,079,712	\$3,924,310	\$3,463,193	\$ 14,953,224	\$ 11,065,186
Cost of sales	2,216,622	2,249,055	2,079,615	8,368,958	5,967,888
Gross margin	1,863,090	1,675,255	1,383,578	6,584,266	5,097,298
margin %	45.7%	42.7%	40.0%	44.0%	46.1%
Operating exp:					
Research & Dev.	267,164	242,329	182,535	964,841	684,702
Selling, mk& ad.	497,642	465,717	406,493	1,907,398	1,495,697
Amortization	86,540	83,129	61,595	310,357	194,803
Litigation	-	-	-	163,800	-
	851,346	791,175	650,623	3,346,396	2,375,202
Income from ops	1,011,744	884,080	732,955	3,237,870	2,722,096
Investment inc	5,454	6,425	10,568	28,640	78,267
Income bef taxes	1,017,198	890,505	743,523	3,266,510	2,800,363
Prov. for taxes	307,076	262,134	225,264	809,366	907,747
Net income	\$ 710,122	\$ 628,371	\$ 518,259	\$ 2,457,144	\$ 1,892,616
Earnings/share					
Basic	\$ 1.27	\$ 1.11	\$ 0.92	\$ 4.35	\$ 3.35
Diluted	\$ 1.27	\$ 1.10	\$ 0.90	\$ 4.31	\$ 3.30

THE DEVIL'S ADVOCATE REPORT

Research In Motion Limited

Incorporated under the Laws of Ontario
(United States dollars, in thousands except per share data) (unaudited)

Consolidated Balance Sheets

As at	February 27, 2010	February 28, 2009
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Assets		
Current		
Cash and cash equivalents	\$ 1,550,861	\$ 835,546
Short-term investments	360,614	682,666
Accounts receivable, net	2,593,742	2,112,117
Other receivables	206,373	157,728
Inventories	621,611	682,400
Other current assets	285,539	187,257
Deferred income tax asset	193,916	183,872
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	5,812,656	4,841,586
Long-term investments	958,248	720,635
Property, plant and equipment, net	1,956,581	1,334,648
Intangible assets, net	1,326,363	1,066,527
Goodwill	150,561	137,572
Deferred income tax asset	-	404
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	\$ 10,204,409	\$ 8,101,372
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Liabilities		
Current		
Accounts payable	\$ 615,620	\$ 448,339
Accrued liabilities	1,638,260	1,238,602
Income taxes payable	95,650	361,460
Deferred revenue	67,573	53,834
Deferred income tax liability	14,674	13,116
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	2,431,777	2,115,351
Deferred income tax liability	141,382	87,917
Income taxes payable	28,587	23,976
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	2,601,746	2,227,244
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Shareholders' Equity		
Capital stock	2,207,609	2,208,235
Treasury stock	(94,463)	-
Retained earnings	5,274,365	3,545,710
Additional paid-in capital	164,060	119,726
Accumulated other comprehensive income	51,092	457
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	7,602,663	5,874,128
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	\$ 10,204,409	\$ 8,101,372