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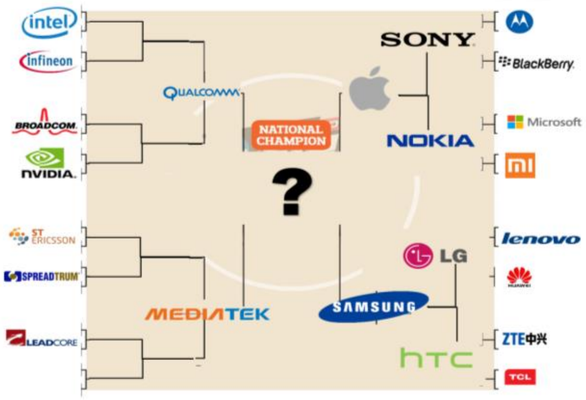
Smartphones: Down to the Final Four

Mobile Devices

8 July 2015



Investing in smartphone stocks is painful; for a $340bn sector, the profits sit with just four players, but not the ones you'd think: sure, **Apple** will get ~$55bn of EBIT from iPhone in FY15E, and **Samsung** still makes more money than the rest of the sector combined. The other two are **Qualcomm** and **MediaTek,** making $8bn and $1.3bn EBIT, respectively, in '15E. We see exits of Sony, BlackBerry and HTC as inevitable, if gradual; moving to ODM models will not save them. While LGE, TCL and Huawei may "hang on", results will get worse for ZTE, Lenovo/Motorola, Microsoft, etc. Much-hyped Xiaomi, Oppo and Micromax face challenges in sustaining growth and entering new markets without IP. **Smartphones are hardly "commodities," but few make money producing them.**

Classic Teams: Shut Out. The old smartphone brands are dying off: **BlackBerry's** run rate was <5m OS10 units in the LTM; **Microsoft** has smothered, and all but killed off **Nokia**. **HTC** is in turmoil and **Sony** is making a radical retreat. **Lenovo** is struggling to revive **Motorola**, as its own domestic share declines. Only **LGE** is clinging on as the #2 in Android.

Apple-Samsung: No Contest. These two have 63% and 26% of high-end units, respectively; as Samsung targets 100m high-end devices (S6, Note, etc.) in '15, its closest rival (LGE) aims to reach 10m G4 sales (a target it missed with the G2 and G3). **Apple should have nearly 2x the sales of Samsung in '15.**

Brands Out-Gunned. In a brutally competitive space, brands can't afford to invest in R&D and marketing. Samsung outspends the entire industry (ex-Apple), while Sony intends to cut R&D 30% in FY15. This will get worse as a "roadmap" of hardware form factors and software features gets more complex. Apple aside, no vendor has sold volumes of wearables. **We don't see any brand investing at scale in innovation, or able to sustain a global presence, while old brands will be licensed to third-parties.**

China Shakeout. An oversaturated market is finally *de facto* rationalising: Only Huawei built international reach, while Xiaomi's growth is slowing and it faces IPR challenges. ZTE and Coolpad missed targets and are "in transition", while Lenovo saw units drop 10%+ in China in 1Q15. TCL and others cannot seem to get gross margins above 15%. **If China does not drive growth, it ups the pressure on everyone to grab share in other emerging markets.**

We keep Negative ratings on **HTC** and **BlackBerry**, raise our rating to Neutral on **LGE** (after shares dropped below our price target), remain Positive on **Apple** and **Qualcomm**, and have Best Idea Long ratings on **Samsung** (for its semis position) and **MediaTek** (for its 2H15 ramp of LTE).

Table 1: Mobile Device Value and Volume Share at Leading OEMs, '14-'15E

	'14 S'phone Units	'15E S'phone Units	% Change	'14 Sales	'15E Sales	% Change	'14E Margin
Apple	193m	246m	*27%*	$120.7bn	$163.8bn	*36%*	*30%*
Samsung	318m	325m	*2%*	$82.0bn	$84.4bn	*3%*	*13%*
Moto/Lenovo	92m	86m	*-7%*	$7.5bn	$12.8bn	*n/a*	*-3%*
Huawei	75m	85m	*13%*	$6.9bn	$7.6bn	*10%*	*n/d*
Xiaomi	62m	82m	*32%*	$12.1bn	$15.4bn	*27%*	*n/d*
LGE	59m	62m	*-8%*	$12.3bn	$12.3bn	*0%*	*2%*
Sony	39m	31m	*-22%*	$12.1bn	$8.9bn	*-26%*	*-4%*
Microsoft	34m	36m	*6%*	$6.5bn	$6.2bn	*-6%*	*-12%*
HTC	16m	13m	*-17%*	$4.2bn	$5.4bn	*20%*	*n/a*
Others*	442m	534m	*21%*	$41.3bn	$56.4bn	*37%*	*~0%*
Total	**1,319m**	**1,500m**	***14%***	**$303bn**	**$341bn**	***13%***	

Source: Arete Research estimates. *Others incl. BlackBerry, Japanese, Taiwanese and Chinese OEMs (Kyocera, Toshiba, Asus, Acer, ZTE, TCL, Coolpad, Meizu, etc.), ODM brands, etc.

The Five Issues Blasting Smartphones to Bits

1. The high-end segment is static, and **increasingly dominated by Apple.**
2. **Chinese brands** will be half of total volume in 2015. Western players cannot compete with their costs.
3. **Consolidation doesn't help**: acquisitions of Nokia, Motorola didn't remove capacity from the market.
4. **Costs are rising for everyone** – this benefits IPR holders (Nokia, Ericsson) and component players (QCOM, MTK and others in sensors, display, memory, etc.).
5. As Samsung's margins trough, **most other branded vendors will lose money in '15.**

When we look back at the five issues we laid out last autumn in *Smartphones: A-Bombed?* (Oct. '14), all are still relevant:

Apple is increasingly dominant, and the sole reason for growth in the high-end (as other brands' flagship models start to lose consumer interest). Apple's high-end market share looks set to rise by 5ppts to 63% in '15E, with Samsung the only other vendor able to sell volumes of high-end models. **What we see with LGE, Sony, HTC and Microsoft is that they cannot manage a global launch of a high-end flagship product, and ramp it to meaningful volumes (i.e., 10m+ units p.a.).**

Chinese brands have *not* reached half of all volume – **partly because so many of them have failed to hit targets or differentiate themselves**. There is far less hype around Xiaomi now than six months ago, since it managed just 34m units in 1H15 and saw its growth rate drop to 30% in 2Q15. Lenovo also saw its domestic shipments drop over 10% yoy in 1Q15, and now must integrate Motorola while also cutting R&D. Coolpad is engaged in a contradictory effort to split itself into three brands (one in partnership with Qihoo), while Meizu has taken investment from Alibaba, which has thus far failed to get its OS onto smartphones. Huawei is the sole Chinese vendor ramping towards 100m units, though its ASPs remain low, and TCL has expanded its footprint but also struggles to get gross margins above 15%. **China has not become the smartphone force many expected it would be.**

Consolidation partly took place, but to little effect. Lenovo bought Motorola, and Nokia suffered more after Microsoft bought them. We think Sony and BlackBerry are shuffling towards the exits, while HTC seems likely to persist, despite losses. **What we see now is "tactical retreats" via half-measures – exiting segments or geographies <u>that</u> further reduce scale and economics.**

We still see costs rising for most players in 2015. Obvious increases are in RF and sensor content, memory, and fresh demands for IPR payments. Apple demands price cuts based on its huge scale and importance to suppliers, while Samsung relies on internal sourcing for most components. Others have few ways to secure better pricing from suppliers.

Losses appear likely for HTC, Lenovo, Sony and Microsoft, with LGE the only question mark as to whether it can maintain positive margins. We are amazed BlackBerry still garners as much attention as it does, given it ships <5m units p.a. of its new BBOS 10 devices. The reality is that most other "brands" don't really have brands at all, as seen by the rise of a spate of local players re-branding ODM product in Spain, France, Turkey, S. Africa and many other markets.

Apple: Top Seeded

Once consumers commit to a smartphone brand, retention is the main aim of any vendor's marketing. Nowhere is this more obvious than with Apple. **The high price of iPhones creates a self-referential "lock-in" to the brand, one of many reasons behind Apple's industry-high retention rate.** It is only the relative price point vs. peers that limits Apple's share gains. However, it appears positioned to take over two-thirds of the high-end market by value; Samsung is its only scale competitor, but has ASPs (~$275) less than half of Apple's (~$665 in '15E). With Apple growing units 40% in its current FY15, there is little space left for rivals.

Samsung: Scale Matters

It is no accident many vendors have sought – and failed – to break through 25m, or 50m, and then 100m units. Samsung may be struggling to grow units, but at ~320m in '13, '14 and likely again in '15, its scale is far beyond any hopeful #3 (a spot claimed by Lenovo, Huawei, and Xiaomi). It gets leverage in opex/sales ratios (marketing, product development and channel/logistics costs are reduced by making and selling globally), and can afford to make longer-term investments like building its Vietnam production base, which promises lower costs than China. If Samsung devotes 6% of sales to R&D and 9% to marketing, this suggests it could have spent $4.8bn on R&D (not including the core component development done in other parts of Samsung) and $7.4bn on marketing in '14. **Given how many blind alleys Samsung has gone down in its products** (developing Tizen phones, the S-Pen, multi-screen windowing, S-Connect and other proprietary apps), **we see potential for Samsung to sustain its margins by focussing its spend, without limiting its scale.**

Figure 1: A Long Progression of Creative Destruction in Smartphones

Source: Arete Research.

Dropping Out of the Bracket

Later in this note we look at three former top brands, HTC, BlackBerry and LGE. Below we review what is happening to Sony and to the remnants of Nokia, being gradually destroyed by Microsoft.

Sony: Shuffling Towards Exit

Sony is already in the midst of a multi-year "restructuring" of its Mobile unit, following previous efforts and a ¥182bn ($1.6bn) asset write-down. Yet its latest plans seen patently unrealistic. It expects to have 1% growth in sales of its Z Series high-end models, but has not launched its Z4 flagship outside of Japan, instead offering a warmed-over Z3+ model, with a new Z5 slated for the autumn, but still reliant on Qualcomm's roadmap. Disclosure shows ~10% of sales were from tablets and accessories, both even more sub-scale than its smartphone effort (which reduced its target three times in the last fiscal year, beginning with 50m units and ending up selling 38m). It recently fired its long-standing SVP of Sales and Marketing, and his entire team based in London. It also forecasts a 22% drop in sales of "other" smartphones; we think sales will decline more sharply, given Sony expects to cut opex by 30% from FY14 to FY16, while R&D falls to $500m by FY16. Sony is largely exiting the US and China – the two largest markets – where its market share in each is just 0.6%. **There is no precedent for a smartphone player "shrinking" its way into a profitable business, serving fewer regions with fewer models: this plan simply won't work, and we suspect Sony is probably aware of this (yet is stubbornly unwilling to completely exit Mobile).**

Microsoft: Hardly Committed

A series of increasingly bizarre decisions has characterised the first year of Microsoft's ownership of Nokia's Devices unit. First, the nominal management team was only let go only after a year in a June '15 reshuffle, when results made it evident that efforts to ramp Windows Mobile devices failed. Second, Microsoft abandoned Nokia's previously profitable feature-phone franchise, seemingly incompatible with its flagship aspirations, even though this provided a large user base to sell into. Third, there have been no new flagship launches in over a year, as the smartphones agenda is set by, and subservient to, the Windows 10 release schedule. The smartphone unit is now run by a supply chain person, i.e., the days of heady marketing budgets to establish Windows Mobile seem over. One can understand this after gross margins in Mobile were 3%, 18%, 15% and 0% in the last four quarters, while WinMo market share remains low, and dropped further since Microsoft stopped using the Nokia brand. **With a new cost-centric CFO at Microsoft, we expect a write-down of Nokia assets at the end of FY16 (mid-'16), once yet another key selling season (4Q'15) passes Microsoft by.**

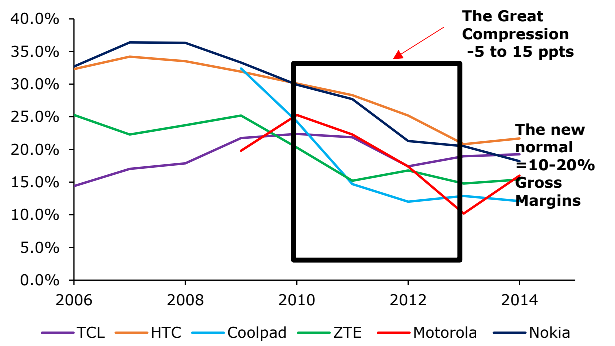
China No Solace

The China market and its leading players are not what they seem to be. There was a clear expectation that the vast domestic market, transitioning to LTE, would allow several Chinese "champions" to take on Apple, Samsung and others. This has not happened according to the script, for three reasons. One, **Chinese players, with Xiaomi as the sole exception, have done little to add value in software or services ecosystems**; they are largely component assemblers. Two, **building brands takes decades**. Lenovo understood this and bought itself a brand, while Huawei's sub-branding efforts have had many false starts. Other Chinese players are largely unknown outside the domestic market (with TCL as an exception, using the old Alcatel brand). And third, **most Chinese OEMs still rely heavily on chipmakers and other hardware vendors for differentiation.** It is hard not to conclude that most Chinese brands effectively sell the same product at similar (cost) price tiers.

There has been no change in how reliant local vendors are on domestic demand, where inventory levels are hard to track. Huawei relies on China for 65-70% of its 75m units in '14, while over 90% of Xiaomi's 62m units were sold in China.

These two, alongside the far smaller Meizu, are the only Chinese vendors currently growing. Lenovo saw China units decline 10%+ yoy in 1Q15, while ZTE again missed its targets in '14, claiming 48m units – 15m in China, and 33m export, with 24m in the US and EU. Even with this richer mix, it saw its gross margin fall further, to 15%, and for 2015, simply pushed out its 60m unit target by a year. Coolpad is similarly struggling, splitting itself into three brands, one aligned with a Qihoo-backed OS and another providing Android models. With operator procurement programmes getting gradually phased out, there is widespread availability of 4G devices, while operators are subsidising dataplans, not devices. **We are back to our central thesis in China: consolidation is badly needed, yet no one player is willing to make the rational economic move to quit.** Things will get worse in 2H16 as we expect Foxconn to license the Nokia brand and launch a flagship device, creating a brand story to rival that of Lenovo/Motorola, while the emergence of local component suppliers allows even fiercer price competition, in a market where LTE models are already plunging below the RMB 499 price level.

Fig. 2: Chinese Vendor's "Great Compression" in Gross Margins, Losing 5-15ppts



Source: Arete Research.

Table 2: R&D by Smartphone Vendor: Haves and Have-Nots

Company	'14 R&D	'15 Direction
LGE	$950m	Likely to be flat
Microsoft	$922m	To be cut by new CFO
Huawei	$848m	Must support own chipset
Sony	$721m	Expecting to be cut 30%
HTC	$380m	Reducing/re-directing
Lenovo	$365m	Little R&D outside Moto
TCL	$191m	Partly for telco brand
BlackBerry	$160m	Getting outsourced
ZTE	$163m	Limited ability to innovate
Coolpad	$94m	Split among 3 platforms
Total	**$4.8bn**	Vast duplication of effort
Apple	$2,975m	Branching out in multiple related areas
Samsung	$4,800m	Drawing heavily on group tech. spend
MediaTek	$1,100m	Links to video, other components work
Qualcomm	$3,300m	Wireless part of $5bn+ overall budget

Source: Arete Research.

Chipmakers Fill the Void

There is no question that R&D requirements are rising, not dropping, for smartphone vendors. There are four reasons for this. First, the integration challenge of RF, sensors, and other functions increases as smartphones are ever more like "Swiss Army Knives." Second, every vendor feels under pressure – if only for brand perception – to have a range of wearables, and other niche products, that must be developed with similar design and functions as core devices. Third, moving to the next process nodes in chipset production means vendors are increasingly beholden to the releases schedules of their chipmaker partners. (Witness the number of vendors that suffered from being "early" with the latest Snapdragon 810 chips from Qualcomm at 20nm.) Designing a leading-edge FinFet chip at 14nm is more than the R&D budget of any smartphone vendor. Finally, the leading chipmakers are bringing more functionality onto the apps processor, and making vendors reliant on in-house support. **The last two "big spenders" in smartphone technology are not vendors but chipmakers; MediaTek would be the fourth-largest R&D house for smartphones, after Samsung, Apple, and Qualcomm, while we forecast MTK and QCOM to have operating profit of $1.3bn and $8bn in their respective FY15s.**

Top Teams Are Stacked

The smartphone space has become a game of men vs. boys. Indeed, formerly well-known brands are under attack from above – where Apple and Samsung garner global attention for their product launches – but also from below, where a host of local brands have taken ODM product and used their distribution channel prowess to capture low-end market share; this has been seen in markets from France and Spain to Turkey and in Indonesia and India. Reference designs and local support from chipmakers make this possible. **There is simply no way back for once-mighty brands. We expect to see Sony and BlackBerry make gradual exits from the market, while HTC has few other options, and Lenovo is committed to a difficult Motorola project.** Unlike a wide open and much-watched college basketball tournament, the chances for an upset victory by an unheralded name seems slim. **And unless one of the challengers can find a way to crack Apple's stranglehold on retention, or match the depth of Samsung's $200bn+ supply chain, smartphones may be the largest tech category, but one where hopes and dreams are turned mostly into losses.**

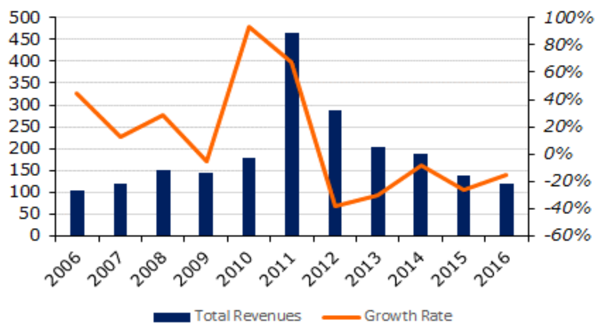
HTC: Facing Elimination

Telecom Equipment **Rating: Negative** **8 July 2015**

Our last note (*HTC: One and Done*?, May '14) laid out how making "best-in-class" product was not enough to sustain a smartphone vendor. Indeed, the M8 flagship proved disappointing, and its successor the M9 looks uncompetitive, to the point where we expect extensive inventory clearance. **HTC is not reaping a brand premium despite investing $4bn in sales and marketing since '11.** It is also clear that in a relentlessly deflationary space, competing with Chinese vendors that seem unconcerned with making a profit, HTC lacks the cost base to be competitive. We think HTC will take extensive charges and post large losses in 2015, and will still be losing money in 2016 so long as it pursues new segments. Without earnings as a basis for valuation, we value the shares on its remaining cash balance at YE15, before it realises any value from investments in new areas like VR or wearables. **We reduce our price target from NT$110 to NT$45 (-35% downside), and leave our long-standing Negative rating** (HTC is relatively difficult to short). We think HTC, like so many other "branded" smartphone vendors, is facing elimination from leading operator range plans and will struggle to return to profitability.

Restructuring Is Never Easy. Even after taking NT$2.9bn of write-downs in 2Q15 (or pre-payments to components suppliers after volumes fell short of plans, for pre-paid royalties and to idle some of its 38m unit production capacity), we think HTC still needs extensive cost cuts. Its directly produced volume dropped from 18m in '13 and 15.6m in '14, and outsourcing only undermines its production base. The company now has consultants advising it on how to deal with its 15,600 staff, production footprint more than 2x its current "own" volumes (not including outsourcing) and what portion of its nearly 4,000 R&D team it should retain. All these portend wrenching changes in a company that just guided sales to drop up to 50% from 2Q14 when it last launched a flagship model. We think HTC will lose more talented staff once it pays out employee bonuses in Aug., and is plagued by in-fighting among senior management over the company direction. A number of mid-level managers left for rivals or for ODMs like Foxconn eager to enter the smartphone arena. Its Chairwoman and main shareholder is now CEO, despite a lack of operational experience, while its ex-banker CFO is also head of Sales. **If HTC cannot command a price premium for its flagships, and has too high a cost base to compete in the low- and mid-range, we think it has no choice but to undergo a long, painful restructuring process to re-invent itself as a niche hardware provider.**

Fig. 3: HTC's Growth Rollercoaster



Source: Arete Research.

Neither Is Reinvention. HTC tried a range of strategies to shift away from direct competition with Samsung in high-end smartphones and a rogue's gallery of low-end rivals. It made several efforts in tablets, latterly with a new Nexus model, as well as launching the Re Camera, without boosting sales. HTC is already a late entrant in the "wearables" space (with a flood of smart watches and fitness trackers on the market). While HTC started making VR prototype hardware, this space is likely to be dominated by tech giants with far deeper pockets. While HTC spent extensively on IPR to support its smartphone business, it still lost several court cases; whether it can build on its 29 granted patents in VR to monetise its R&D remains to be seen. **It is HTC's best, and only, hope to suffer large losses in a bid to find a new value-added tech category it can address; it probably also needs to bring in fresh management. Trying to match its Chinese peers on cost is a sure road to elimination, in our view.**

Table 3: Summary Financials, '12-'16E **Ticker: 2498 TT** **Price at 6 July '15: NT$69**
Market Cap.: NT$57bn **Target Price: NT$45 (-35%)** **DCF Value: NT$53**

Year to Dec.	Sales (NT$m)	EBIT (NT$m)	EPS (NT$)	Ex-Cash P/E	P/E	EBIT Margin	EV/Sales	EV/EBIT
2012	289,020	18,820	26	nm	3x	*6.5%*	0.1x	nm
2013	203,403	-3,976	-2	nm	nm	*-2.0%*	0.1x	nm
2014	187,911	669	2	13x	38x	*0.4%*	0.1x	nm
2015E	138,444	-15,491	-17	nm	nm	*-11.2%*	0.2x	nm
2016E	118,150	-7,045	-7	nm	nm	*-6.0%*	0.2x	nm

Source: Arete Research estimates.

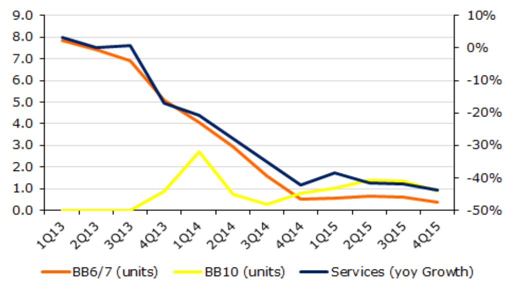
BlackBerry: Not Securing an Invite

Smartphones/Enterprise Software Rating: Negative 8 July 2015

When we wrote *BlackBerry: Bait and Switch* (Nov. 14), we talked about an aggressive p.r. strategy failing to unearth a buyer or change company fundamentals beyond ongoing cost cuts. **The stock dropped 27% YTD, well under $10, making dilution likely, and while losses were stemmed, our FY16 sales forecast is now 20% lower than nine months ago.** The company missed revenue estimates in each of the past four quarters, until one-off patent license deals boosted 1Q16 results. **We see no reason to change our $5 target price or Negative rating.**

Devices Not Feeding Licenses. BlackBerry gets 55% of its BES licenses for managing *only* its own devices (not "cross-platform"). BlackBerry sold 4.6m "new" BES10 smartphones in the LTM, becoming *even more* marginal in an over-crowded smartphone space, with 0.3% global share. **BlackBerry is simply not replenishing the base of legacy users to sustain sales of its BES platform.** Moreover, Fig. 4 shows two difficult trends BlackBerry faces: 1) the rate of yoy decline in its profitable Services business is accelerating, making what seemed like cautious $800m sales guidance for FY16 seem likely. 2) In the past seven quarters, BlackBerry has not sold more than 1.4m "new" BES10 devices per quarter, despite marketing incentives, backing from an Amazon AppStore, and launching four new models (Z3, Passport, Classic and Leap). **There is virtually no market demand for devices, and in turn, this should cut demand for Services (burning off as legacy devices are retired) and limit software license sales.**

Fig. 4: Sharp Declines in Services Growth, No Step-up in BES10 Device Sales



Source: Arete Research, BlackBerry.

We also find multiple elements of questionable reporting of its financial results:

1) Saying in Aug. '14 ""workforce reduction is behind us", then taking $58m of charges in Mar. '15.
2) Citing a "tremendous response" for the Z3, Passport and Classic, yet seeing BES10 volumes drop to <1m units/Q in 4Q15 and 1Q16, even with AT&T and TMUS deals;
3) Changing revenue recognition in Devices from 1Q16 from sell-through to sell-in;
4) Announcing JVDM "deals" with Wistron and Compal when a similar prior deal with Foxconn – also incl. emerging market distribution – yielded no uplift in sales;
5) Holding an "Analysts Day" in Nov. '14 that permitted no questions from analysts;
6) Including one-off asset sales, patent licensing and acquisitions in its $500m software "sales" guidance (and changing the terms of guidance), while its $100m target for BBM was removed;
7) Announcing "partnerships" with Samsung and Google, while both also work with BlackBerry's rivals.

In many ways, we see this reporting as an exercise to boost confidence among customers. If we exclude the roughly $70m of patent licensing income from 1Q16 gross profits, "real" gross margins were 37%, making 2Q16 40% gross margin guidance understandable. **Our BlackBerry SOTP price target remains $5, assuming Devices will not generate sustainable profits, some portion of Tech and IP Licensing are one-offs and Services is in "run-off" mode, while we assume dilution from the convertible.**

Table 4: BlackBerry SOTP

Asset	FY16 Sales	P/Sales Mult.	Value	Per Share
Net Cash @1Q16	n/a	1x	$1.65bn	$2.47
Software	$300m	3x	$900m	$1.35
Tech./IP. Lic.	$180m	2x	$360m	$0.54
Services	$800m	0.5x	$400m	$0.60
Devices	$1.3bn	0x	$0m	$0.0
SOTP Total				**$5.0**

Source: Arete Research estimates. *We remove restricted cash and assume convertible debt and 50% of RSUs turn into shares.

Table 5: Summary Financials, '13-'16E **Ticker: BBRY US** **Price at 6 July '15: $7.99**

Enterprise Value: $2.5bn **Target Price: $5.00 (-37%)** **DCF Value: nm**

Year to Feb.	Sales	EV/ Sales	EBIT	EBIT Margin	EPS	P/E	P/E ex Cash	BB YE Subs	Units	ASPs
FY13	$11,092m	0.3x	-$1,232m	*-11.1%*	-$1.23	nm	nm	76.3m	28.5m	$220
FY14	$6,813m	0.4x	-$7,163m	*nm*	-$11.19	nm	nm	59.5m	18.3m	$207
FY15E	$3,365m	0.7x	-$423m	*-12.6%*	-$0.57	nm	nm	n/a	7.0m	$215
FY16E	$2,606m	1.0x	-$82m	*-3.2%*	-$0.20	nm	nm	n/a	6.0m	$230

Source: Arete Research estimates.

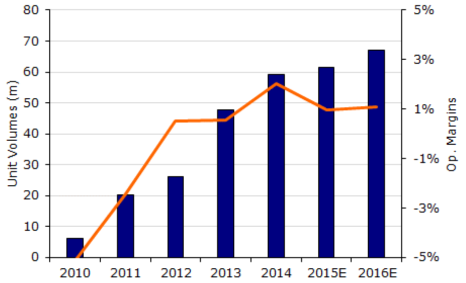
LG Electronics: Nothing Left to Do

Digital Consumer **8 July 2015**

We just wrote *LG Electronics: New Sequel, Same Plot* in April, but we have to look again as the stock now dropped below our KRW50,000 price target. The problem is less with a long-struggling smartphone business – holding its low market share and roughly breakeven margins – than with TVs, where LGE gets over a third of sales but effectively no profit. While its capital structure is worse than when it had a rights issue in 2011, it insists it does not need fresh capital. **With the stock now at 0.6x book value, and trading below our target 12x P/E for 2016, we cut our price target to KRW45,000 but raise our rating to Neutral from Negative. Our multi-year Negative or Best Idea Short stance on LGE has largely played out. As other branded Android vendors beyond Samsung fade, LGE has a short grace period to cut costs if it wants to avoid another downward leg in earnings.**

Mobile: Smooth Ride to Nowhere? LGE deserves credit for keeping its smartphone business around breakeven, playing for the #3 branded spot as Nokia/MSFT, HTC and Sony all plunged into losses and saw management turmoil. However, Fig. 5 shows that it simply was not able to boost margins even as its units rose and it used sister companies as suppliers. We now expect units to flatten out; this means LGE must reduce its $950m R&D budget, abandon its chipset and software platform efforts, and make further cost cuts to compete with Chinese rivals in the mid- and low-end that comprises the bulk of its shipments. **A best-case outcome would be a 0-5% margin smartphone business growing 5-10% p.a., hoping its distribution and brand keeps it relevant as an Android alternative to Samsung in the U.S. (where TCL is chasing it) and in select emerging markets.**

Fig 5: Ramping Units Has Not Boosted Margins at LGE Mobile



Source: LGE, Arete Research estimates.

TVs: Fuzzy Picture. After a surprise profit in 1Q14 – the highest in history at 4.9% – LGE's TV business steadily deteriorated. In China, Xiaomi and Lenovo are competing alongside local brands like TCL, while Vizio stakes out the low-end in the US, and overall demand is soft. Share gains in '14 still yielded minimal profits, and growth requires marketing spend (or incentives). There is no big event to drive demand in '15. TVs are "dollar-short" due to high US$ costs and shipments skewed towards emerging markets; they may benefit from weak panel prices, but this will hurt its 34% stake in LG Display earnings (which we rate as a Best Idea Short). **As in smartphones, LG simply needs to halt ill-fated efforts to diversify (WebOS TVs, tablets, Chromebooks), while it cuts its 32m unit target.**

The Rest Is Best, But… We have little value to add on LGE's now combined Home Appliance and AirCon units. LGE expects only slightly better profits and low-single-digit growth vs. a weak 2014, and after the peak 2Q15 period (for AC), it faces FX and macro pressures in emerging markets. Investors cannot buy LG for its 29% of sales in white goods. We also have little way to assess fluctuating margins in LGE's "Other" unit (solar and lighting) or whether it will incur heavy losses in Vehicle units for R&D spend. **Since it does not hedge, LGE is heavily exposed to FX, raising the risk of financing losses or missed sales forecasts due to translation.**

Valuation. We are not fans of price/book, but see how the 0.6x ratio might entice locals. LGE remains highly indebted – excluding LG Innotek debt, LGE saw debt/equity ratios rise from 42% at YE13 to 50% at YE14 and to 59% at 1Q15 – but says it will not raise equity. LGE failed to return its cost of capital (i.e., make a double-digit EBITDA margin) since FY08. Its low working capital ratio (11% of sales) reflects weak demand for its products. **Rolling forward our 12x target P/E to FY16, our new price target is KRW45,000 (down from KRW50,000). For us, this simply means there no investment case until LGE lays out either of cost cuts, or ways it could find growth.**

Table 6: Summ. Financials, '13-'16E Ticker: 066570-KRX Price at 6 July '15: KRW46,200

Core Enterprise Value: KRW11.6tn Target Price: KRW45,000 (-2%) DCF Value: n/a

Year to Dec.	Sales (KRWbn)	EBITDA (KRWbn)	EPS (KRW)	P/E	EBIT Margin	Core EV*/Sales	EBITDA Margin	EV/EBITDA
2013	58,140	2,753	1,112	nm	*1.5%*	0.2x	*4.7%*	4.2x
2014	59,040	3,705	3,475	13.3x	*3.1%*	0.2x	*6.3%*	3.1x
2015E	62,691	3,505	1,986	23.3x	*2.4%*	0.2x	*5.6%*	3.3x
2016E	63,971	3,991	3,771	12.3x	*2.8%*	0.2x	*6.2%*	2.9x

Source: Arete Research estimates; *Core EV excl. LGD participations and LGI net debt.

Table 7: Other Companies Mentioned Under Coverage

Company	Ticker-Price	Rating
Apple	AAPL US-$126	Positive
LG Display	034220 KS-KRW24,550	Short
Lenovo	992 HK-HK$9.43	Negative
MediaTek	2454 TT-NT$419	Long
Microsoft	MSFT US-$44	Negative
Qualcomm	QCOM US-$63	Positive
Samsung	005930 KS-KRW1,230,000	Long
Sony	6758 JP-¥3450	Negative

Source: Arete Research. Prices as of 6 July 2015.

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Required Disclosures

Overall Industry Risks: The smartphone space is a dynamic market with dozens of players making products that require complex hardware and software integration skills; it is hard to predict how any one vendor might fare with any particular model, though the space for so-called "flagship" devices is limited by the struggle to differentiate "flat black slabs", i.e., standard touchscreen devices largely running an Android OS.

Primary Analyst(s) Coverage Group: ASOS, Alcatel-Lucent, Alibaba, Apple, Autohome, Baidu, Bitauto, BlackBerry, Criteo, Ctrip.com, Ericsson, Facebook, Google, HTC, LG Electronics, Nokia, Qihoo, Qunar, Rocket Fuel, Samsung Electronics, Sony, Technicolor, Tencent, Twitter, Vipshop, Weibo, Yahoo, Zalando.

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