



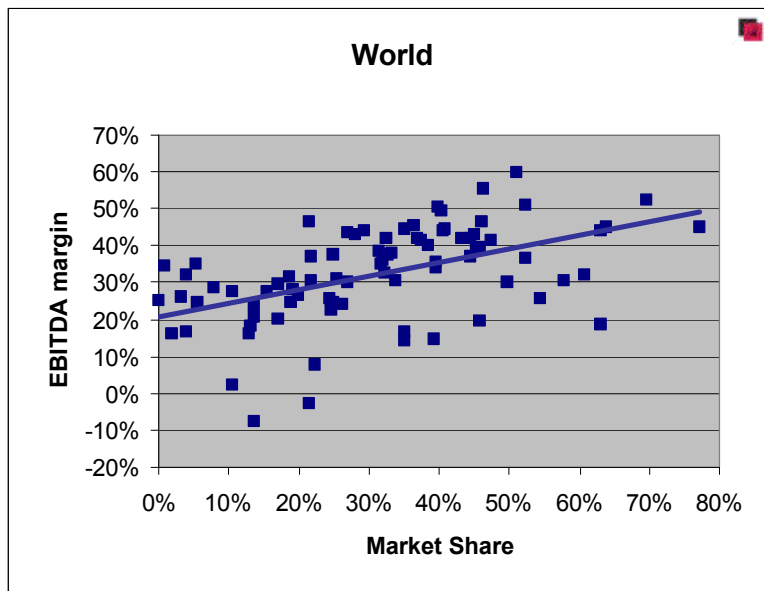
## The changing relationship between market share and EBITDA margin

30 March 2006

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*The relationship between EBITDA margin and national market share has historically been used to demonstrate that clear economies of scale exist in cellular. In the most mature markets (those passing through 100% penetration), this relationship appears to be changing so that the smaller operators are able to run on metrics closer to their larger peers. It is too early to draw strong conclusions on this, but it looks as if the nature of economies of scale is changing and there may be difficulty in realising all the economies of scale that exist.*

Figure 1 The relationship between market share and EBITDA margin, Q4 05



Source: Wireless Intelligence, March 06

For some time it has been clear that there is a reasonable relationship between national market share and EBITDA margin – the higher the market share, the higher the margin – indicating economies of scale. *Figure 1* shows the picture for



the operators in the world that report EBITDA margin in Q4 2005, with each dot representing an operator and the linear trendline between them.

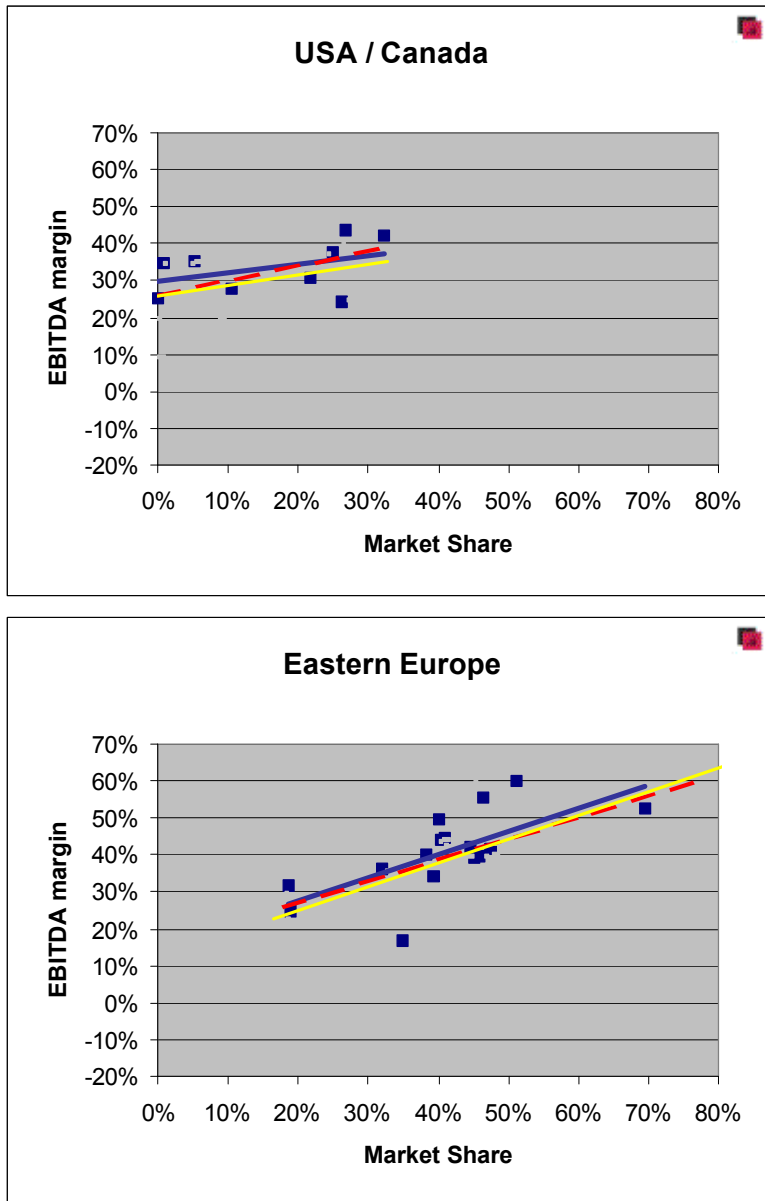
This has been the basis of many operators' strategies in the market, especially in the early phases of market development where we saw a 'land grab', with high subscriber acquisition costs being used to build a big subscriber base rapidly.

However, the relationship appears to be shifting in the most mature markets, notably Western Europe, with the trendline flattening so that market share is less important to EBITDA margin.



## Analysis

Figure 2 **The market share/EBITDA margin relationship has been fairly stable**



Source: Wireless Intelligence, March 06

In most regions this relationship between EBITDA margin and market share has been fairly stable over the last few years, as shown by North America and Eastern Europe in *Figure 2*. The solid (dark blue) trendline shows Q4 2005. The light and



dotted trendlines show the relationship in Q4 2003 and Q4 2004 respectively (the individual data points for 2003 and 2004 are not shown for clarity).

Over the last three years these trendlines have not moved much, indicating a fairly stable relationship. This is the case in Eastern Europe, Asia Pacific, US/Canada and the Americas – all of which have market penetration of <100% in almost all countries, see *Figure 3*.

Figure 3 **Market penetration by region**

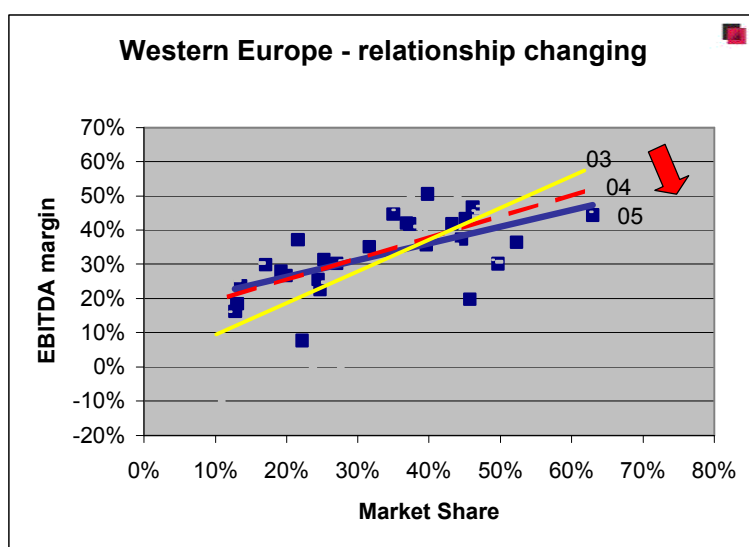
	Penetration Q4 2003	Penetration Q4 2004	Penetration Q4 2005
Americas	23%	32%	43%
Asia Pacific	15%	19%	23%
Eastern Europe	28%	45%	68%
Western Europe	86%	93%	103%
US/Canada	53%	62%	70%

Source: *Wireless Intelligence, March 06*

What is interesting, though, is that the relationship between market share and EBITDA margin appears to be flattening over time in the most mature markets, especially Western Europe, as shown in *Figure 4*.

It looks as if the nature of the relationship starts to change as a region approaches 100% penetration.

Figure 4 **EBITDA margin/market share changing in mature markets**

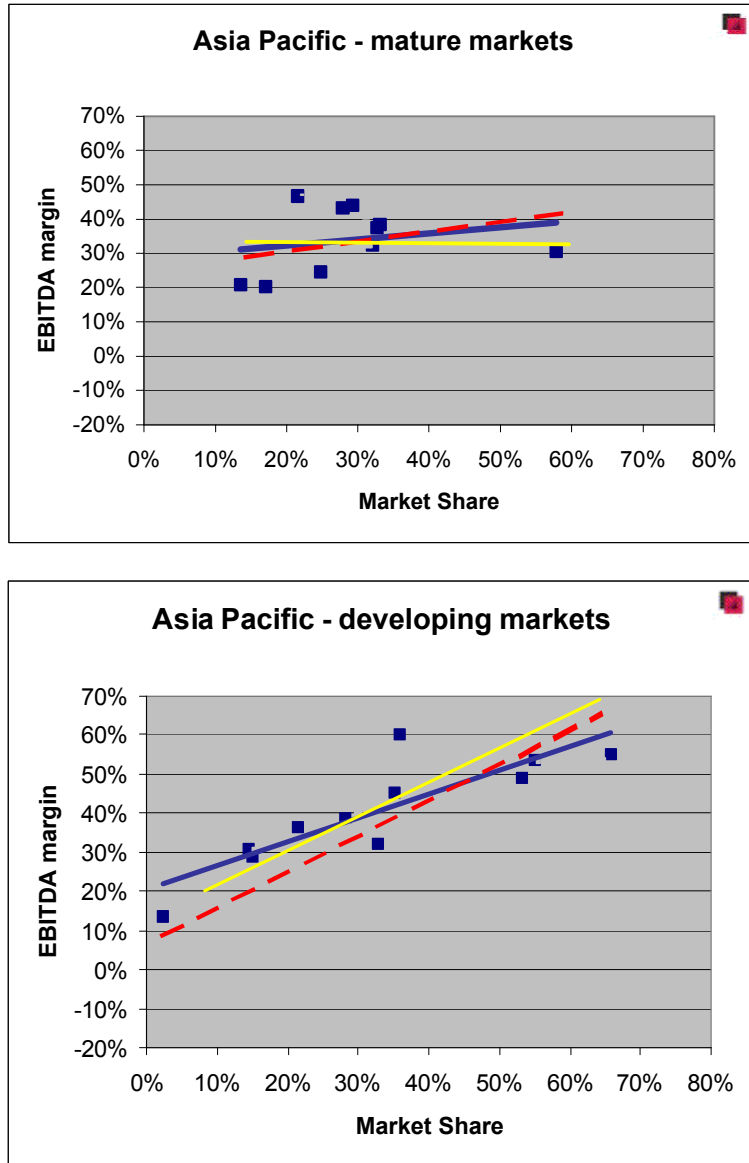


Source: *Wireless Intelligence, March 06*



We can test this by looking at Asia Pacific in more detail, because it contains a mixture of mature markets and those still in their high growth phase. See *Figure 5*. We do not see such a clear shift within the mature markets, but it is clear that the overall trend is flatter in the mature markets than in the high growth markets.

Figure 5 **Comparison of mature and high growth markets in Asia Pacific**



Source: *Wireless Intelligence, March 06*

Our interpretation of this is that economies of scale are changing and there is difficulty in achieving some economies of scale.



The relationship could change for several reasons:

- if the nature of economies of scale is changing, enabling smaller players to operate on similar economics to the larger players – i.e the economies of scale don't exist as they used to
- if larger organisations are failing to achieve economies of scale that do exist
- if other factors are bearing on EBITDA that are affecting the larger players more than the smaller players – i.e. diseconomies of scale are operating.
- if the number of players in the market has increased so that average market share has shrunk, while cost bases have remained about the same
- if smaller organisations are being successful in attracting the higher spending customers.

Taking these possibilities in turn:

- The nature of economies of scale appears to be changing, with a number of players making significant efforts to reduce operating expenditure. Possibly the most significant here are the efforts that smaller and newer operators have made in web-based provisioning, online prepaid top-ups, CRM and so on to enable them to operate on metrics that are closer to their larger neighbours. Of course these initiatives could be done by operators in any market – but they have a lower priority in high growth markets, because so much effort is going into building the market, so are less likely to be seen there.
- Larger operators do seem to be having some difficulty achieving meaningful economies of scale *across* their country operations (as opposed to within their country). There are few public examples – the much-quoted Vodafone One programme is the main one. Vodafone has been more aggressive than many operators in looking to consolidate its operations around a few platforms, yet the position of the Vodafone companies' EBITDA margin relative to their peers has generally not changed much over the last 24 months. The effect of these programmes is hard to measure directly and Vodafone's efforts in this area have so far disappointed the stock market.
- There are some claims that diseconomies of scale may be starting to exist in the most mature markets, with larger operators spending more per user on subsidies, advertising and channel support. This is not showing through systematically in the reported data yet. As a market heads through the 100% penetration level, operators make gains through churn and multiple subscriptions. Under those conditions it is clearly more sensible to focus on quality of acquired customers rather than the quantity.
- The number of players has increased, but only slightly. At the end of 2003 there were 83 operators in Western Europe and that had grown to 88 by the end of 2005. This is a net increase of just five across the 28 countries we include in Western Europe, so will only have a small effect on the regional picture.
- The relationship between ARPU and market share across Western Europe is not strong, with the regional average being close to €30 across all market share



bands. However, the average has flattened slightly over the last two years indicating another small effect

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