

THE DEVIL'S ADVOCATE REPORT

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Studies in Absurdity

Further Reflections upon the Nokia Growth Rate

Nokia is a cellular telephone handset manufacturer that asserts that, with the exception of the next six months, it fully expects to grow its operations at the annual rate of 35%. It is not surprising that the company should make such an assertion, since for the past decade it has actually achieved this remarkable accomplishment. However, investors appear to lend credence to this assertion, and this is remarkable.

An objective means of studying this question is to approach it from the perspective of the cellular telephone providers. It is no more than obvious that handset demand is powerfully influenced by the number of cellular telephone subscribers in existence. The largest cellular telephone service provider in the world is Vodaphone. It has established a presence in virtually every region upon the globe and, therefore, its subscriber growth experience will enable the observer to make some useful generalizations with regard to handset demand.

The following table is reproduced from a recent Vodaphone press release. It details subscriber growth in the most recent quarterly period ending on June 30, 2001. It reports results by geographic area and also provides information concerning organic growth in subscribers as opposed to growth by acquisitions. This table is depicted below.

Vodaphone Subscriber Growth

4/1/2001 – 6/30/2001

Region	Customer Base at Beginning	Net Additions	Subscriber Acquisition	Customer Base at End of Period
UK	12,279,000	269,000	-	12,548,000
Middle East and Africa	2,349,000	166,000	-	2,515,000
Other Northern Europe	7,225,000	303,000	1,560,000	9,088,000
Central Europe	22,266,000	847,000	89,000	23,202,000
Southern Europe	20,110,000	693,000	1,282,000	22,085,000
Verizon Wireless US	11,570,000	345,000	415,000	12,330,000
Japan	2,826,000	251,000	3,015,000	6,092,000
Other	1,535,000	46,000	610,000	2,191,000
Pacific	<u>2,837,000</u>	<u>119,000</u>	<u>96,000</u>	<u>3,052,000</u>
Totals	82,997,000	3,039,000	7,067,000	93,103,000

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If there is to be 35% growth in demand for handsets in the next 10 years, it clearly will not come from the UK, since such growth would imply 250 million Vodaphone customers in 2010 and the current population of the UK is about 59.5 million. Similarly, using Vodaphone terminology, Central Europe is defined to be Germany, Hungary, Poland and Switzerland. The current aggregate population of these countries is 138.8 million according to the figures available from the US Department of Commerce. A growth rate of 35% would require 466 million Vodaphone subscribers in that region, as well as a most unusual Vodaphone monopoly. If Japan is used as an example, the required Vodaphone subscribers in 2010 would total 122.6 million, as opposed to the current population of Japan of 126.5 million. If this were to occur, the prospects of NTT DoCoMo would deteriorate to the level of non-existence.

It is, therefore, evident that the only prospect for 35% growth is in areas such as Africa and the Middle East. Vodaphone did experience 7% growth in subscribers in this region in the most recently reported quarter. This still does not equal 35% annual growth, but at least it could be argued that, given some increase in economic growth in that region of the world, 35% growth is achievable for a time, if not on a sustainable basis. However, demand from this region must remain merely a small part of overall worldwide demand for handsets until the subscriber base is orders of magnitude larger. It would be necessary to achieve a growth rate much larger than 35% per annum in the so-called emerging markets in order to have any hope of generating global growth per annum that approaches 35%.

It will, no doubt, be replied that this reasoning excludes the large cellular markets of China. The largest cellular provider in China is China Mobile, and it currently serves, according to its figures, 52 million subscribers. A 35% annual growth rate for the next 10 years would have, as its logical consequence, the result that China Mobile would serve 1.045 billion customers, or more than the current Chinese population. At the current time, China Unicom has another 4.2 million subscribers, so the Chinese mobile base is actually 56.2 million, which, therefore, makes the logically required user base in China in 2010 that much more absurd.

None of this reasoning qualifies as a substitute for a more thorough and exhaustive study of the Nokia business prospects. If such commentary provides a lesson, then this lesson must be that 35% per annum growth is an astonishing number. There are few companies that have ever achieved such growth over a prolonged period of time. Notwithstanding this fact, NASDAQ is replete with companies that claim to be capable of this achievement. Moreover, the investment community is replete with believers.