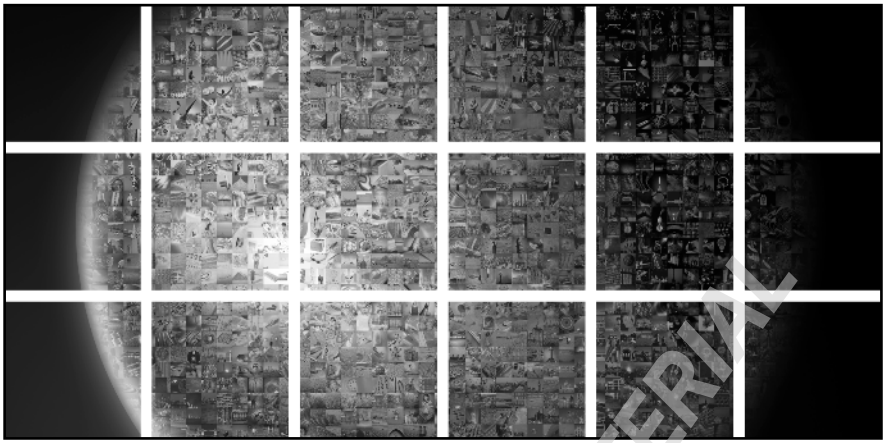


1

A granular world

"It's a small world after all"
Song at a Disneyland ride

- Companies should base their growth strategies on granular views of their markets
- There's no such thing as a growth industry; most so-called growth industries have mature segments, and most mature industries have granular growth pockets
- Once you adopt a granular perspective, "megatrends" such as aging vary enormously from market to market

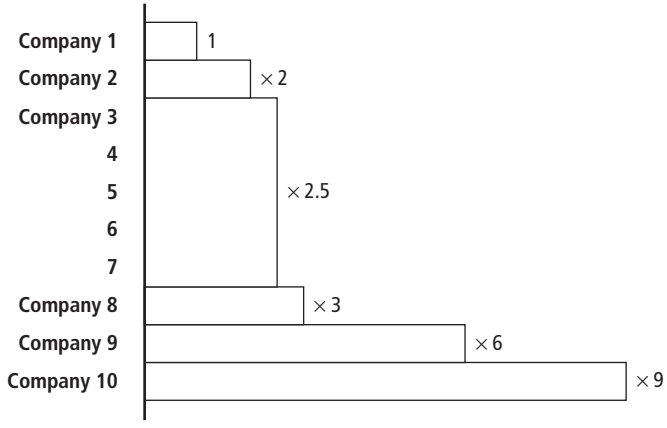
PEOPLE TEND TO TALK about growth in sweeping terms. Terms such as "growth industry" and "mature industry"—while catchy and convenient—are loaded, imprecise, and often downright wrong. One of the most important empirical findings from our research is that there's no such thing as a growth industry. The real definition of a growth market exists at a level much deeper than industry. Most so-called "growth" industries have sub-industries or segments that aren't growing, and most "mature" industries and geographies have at least a few sub-industries or segments that are growing rapidly.

The histogram in Figure 1.1 illustrates this well. In Europe, telecommunications is generally regarded as a mature industry. Yet telecom companies show wide variations in their portfolio growth rates because there are broad differences in the growth of their underlying markets.

Wireless grows more quickly than wireline does, for example, and even within wireless and wireline there are significant variations. Wireless is growing more slowly in western Europe than in eastern Europe. Within wireline, broadband internet is experiencing rapid growth and voice is declining. In addition, the degree of exposure to fast-growing markets outside Europe varies from company to company. So within the European telecom industry as a whole, different companies have made different portfolio choices that have given them different levels of exposure to growth segments and countries.

1.1 Variations within a "mature" industry

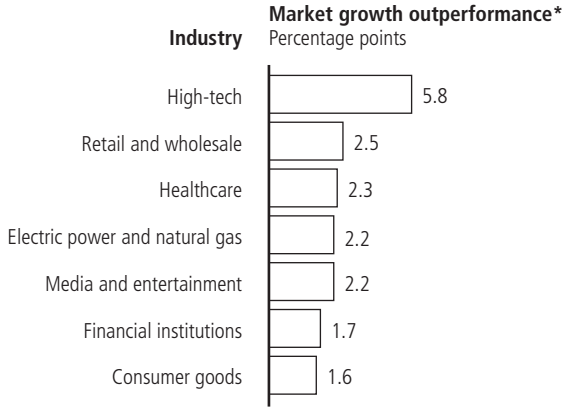
Spread of market growth rates* for 10 telcos with EU HQs, 1999–2005



* Expressed as multiples of company 1

1.2 Growth giants have a clear edge

Average outperformance by growth giants of overall industry CAGR, 1999–2005



* Includes changes in market growth due to portfolio shifts

The same variability is evident in apparently high-growth sectors too. If we take a representative set of large high-tech companies, for instance, and calculate the weighted average growth rate of the market segments that each company participates in, we find that the results range from –6 to 34 percent. Clearly, what looks like a growth industry to some looks mature to others.

If we revisit the set of growth giants we described in the Introduction, we can see that even when they don't operate in what we would consider to be growth industries or markets, they *still* outperform their industry peers. Figure 1.2 shows how well the growth giants do in some of the industries where we have the largest samples: high-tech, retail and wholesale, healthcare, media and entertainment, consumer goods, financial institutions, and electric power and natural gas (EPNG). In every case, the growth giants outclass their competitors in market growth: in EPNG, for instance, they have an edge of 2.2 percentage points over the industry as a whole.

So what does this tell us? One message is that there is hope for companies seeking to grow in seemingly mature industries. They don't have to abandon their entire business in search of a new one with a better growth rate, even if they could. Instead, they need to look deeper into their current industry and businesses in order to identify pockets of potential growth, and then focus their time and resources on these faster-growing and more profitable segments.

This is where granularity comes in.

Why granularity matters

Granularity isn't a term traditionally used in business. We've borrowed it from the world of science and engineering, where it is used to refer to the size of the components within a larger system. If we take what we might call a non-granular (or "coarse-grained") view of the system, what we might see is the system as a whole or perhaps the larger sub-systems within it. In a granular (or "fine-grained") view of the system, on the other hand, we might see some of the individual small components that go to make it up.

To make this more concrete, imagine we are looking at Google Earth. It shows a sequence of pictures from a satellite camera as it zooms in on the Earth from space. The first image we see is the whole planet. As the magnification increases and the field of view narrows, a continent comes into focus. Next we see the outline of an individual country, then a city, and finally a street or building. Before our eyes, the image of the Earth is progressively becoming more and more granular.

So why have we decided to apply the idea of granularity to business, and specifically to growth?

As we mentioned in the Preface, we want to get away from the broad-brush terms in which business opportunities are often described. Using the idea of granularity helps us cut through generalizations about industries ("Pharmaceuticals is a high-growth industry") and markets ("China is where the action is") to reveal a much more nuanced view of the world.

Second, we believe that if the texture of markets is granular, then so too should be the way that companies operate. This poses a challenge for corporations that structure their organizations and activities in an aggregated way. We are not arguing against scale. Rather, we are arguing that scale should not come at the expense of granularity.

For us, then, granularity conveys two important and related ideas: first, a fine-grained understanding of markets and growth opportunities and, second, a sharply focused, precise, and detailed way to manage discrete initiatives and activities across the corporation. We believe that applying both these ideas greatly increases a company's chance of success in identifying and pursuing growth opportunities. Our aim in this book is to show you how you can "de-average" *both* your view of your markets and your organization *and* the way in which you make choices and allocate resources—all while seeing both the forest and the trees.

In this chapter, we look at the granularity of markets. We come back to what this implies for your company's organization in part III.

Levels of granularity

A company formulating its growth strategy needs to develop insights into trends, future growth rates, and market structures at much greater depth than the aggregate industry level. Insights into sub-industries, segments, categories, and micro-markets are the building blocks of portfolio choices. They are indispensable for companies seeking to make the right decisions about where to compete.

All of which poses a practical question: when you make these decisions, what level should you be looking at to get the insights you need? How deep should you go? We'll now introduce a framework to help you find the answer.

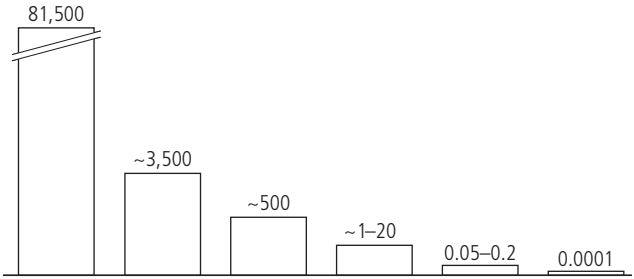
To find out how granular strategic decisions need to be with respect to particular markets, we carried out a systematic analysis of how market selection correlates with company growth. There is already a well-developed academic literature on the relationship between industry choice and profitability.[1] We have applied a similar methodology to look at how industry choice affects top-line growth, while making a few key changes to the analysis.

What we set out to test is the extent to which industry growth rates are correlated with company-specific organic growth rates. First, we took the sample of companies we described in the Introduction and stripped out M&A from each company's reported top-line revenue. We did this to control for the fact that different companies in the same industry use M&A in very different ways and see very different effects on their top-line growth rates. Since buyers and sellers are usually both from the same industry, the decision to be a buyer (or a seller) is specific to the company, and not a function of the industry growth rate.

Removing inorganic growth from the equation is only the first step. It is even more important to make sure that the correlation tests are performed at the right level of granularity. The only way to establish the impact of the decisions executives make about market selection and portfolio commitments is to examine the level at which these decisions are actually made—a level far deeper than that of industry.

Let's start by looking at the six levels of granularity that we have identified, as illustrated in Figure 1.3.

1.3 Levels of granularity

Level	G0	G1	G2	G3	G4	G5
Number of segments	1	24	151	Thousands	Millions	Billions
Average market size US$ billions						
R^2 of company growth with segment growth	0.02	0.14	0.34	0.59	0.65	

Granularity level G0

The Earth—or, in our context, the global marketplace—is the highest level of aggregation with the least granularity: the ultimate segment of one. The world economy is growing by roughly 6.2 percent a year in nominal terms. By 2005, its total output had reached $81.5 trillion. This is the global pie.

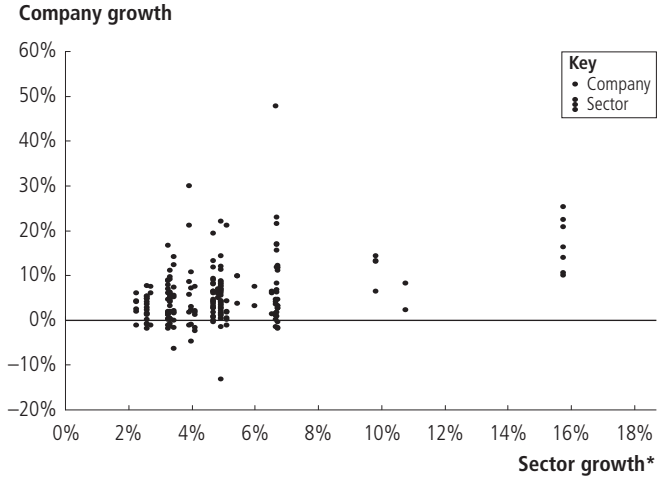
Granularity level G1

If we want to investigate why some companies grow at a rate that is faster or slower than about 6 percent, the first step is to divide up the economy. The Global Industry Classification Standard (GICS) carves it up into 24 broad industry groups ranging from telecommunications services to energy to biotech. These sectors have an average market size of $3.5 trillion. If you plot sector growth and company growth, as we have done in Figure 1.4, no obvious correlation can be seen.

Each point on the graph represents a company, and each vertical set of points represents a sector. The vertical spread for any set of points thus shows the variation in company growth rates within that sector.

1.4 Sector growth or company growth?

Scatter of sector and company growth, CAGR based on US$, 1999–2005, percent



* Using Global Industry Classification Standard (GICS) developed by Morgan Stanley Capital International
Sample: Granular growth decomposition database

In fact, at this level of aggregation, the growth of sectors explains only about 14 percent of total company organic growth. This is because the growth rate of different *sectors* runs in the range of 2 to 16 percent, whereas the spread of growth at individual *companies* is much broader, ranging from –13 to 48 percent. This reinforces our point that talk of growth industries is meaningless.

Granularity level G2

Frankly, decisions at the G1 level (such as whether to be in telecommunications, energy, or biotech) are not within the ambit of most companies, so we need not dwell on them here. To get to a deeper level of granularity, we can break down the 24 groups into 151 industries by using other readily available GICS statistics. For instance, the "food, beverages, and tobacco" group breaks down into the component industries "food," "beverages," and "tobacco." The resulting G2 segments have an average size of roughly $500 billion—much more granular than the G1 sectors, but still fairly large.

We found that a typical large company in our database has at least two significant G2 industries in its portfolio, by which we mean that the industry concerned contributes at least 10 percent or more than $1 billion to the company's revenue.

This level of granularity is not yet fine enough, though, to give us the information we need to start making portfolio decisions. At the G2 level, differences in companies' portfolio exposure explain little more of the variation in organic top-line growth than they did at the G1 level.

Granularity level G3

Each industry can then be divided up again both by sub-industry and by market (country or region). Within the food industry, for instance, two examples of sub-industries might include frozen foods or savories, oils, and dressings.

In analyzing companies' performance we found that it was usually possible to reach the G3 level of granularity by taking the finest level of data that companies report to the markets. Provided we have access to enough information, we can zoom in on individual sub-industries in individual markets: frozen foods in China, say.

At this G3 level, the world market contains thousands of segments ranging in size from $1 billion to $20 billion. Our analysis shows that the growth rates of these segments explain over 60 percent of a typical company's organic top-line growth. In other words, at the G3 level, market selection becomes more important than a company's ability to beat the market, and portfolio composition is the chief factor determining why some companies grow and others don't.

Granularity level G4

Sometimes it is possible to use proprietary databases and internal company data to dig deeper than the level at which companies normally report. The definition of the G4 level of granularity varies slightly from industry to industry, but, in essence, it's the level of categories within sub-industries (such as ice cream within frozen foods) or customer segments within a broad product or service category (such as weight-conscious snackers). The G4 level is important: it represents the minimum level of granularity at which companies need to operate when setting growth priorities and making decisions about resource allocation.

At the G4 level of granularity, the world economy contains millions of growth pockets that range in value from $50 million to $200 million. In our analysis, we found that the selection of G4 segments often did even more to explain a company's organic growth than the selection of G3 segments did. The G4 level of information goes well beyond that routinely available to the stock

markets. It is the level at which the real resource allocation decisions should be made.

Granularity level G5

This is a view of the world at the level of individual customers and transactions —the ultimate segment of one, numbering many billions. Although some companies have developed systems that permit highly personalized interactions with individual customers, few, if any, are able to allocate resources at this level of granularity. For most companies, most of the time, G5 will be a level too far.

Now let's apply the levels of granularity to a specific case: the aging megatrend. We start with a health warning.

Handle megatrends with caution

The term "megatrend" is often used to describe major global forces that are expected to have wide-ranging impact. As we write, megatrends are a hot topic and many people claim it's vital to ensure your company is addressing them. However, most discussions of megatrends take place at a very broad and superficial level. That may be fine for financial commentators on TV or casual dinner-party chat, but it's not much use if you happen to be the CEO of a large company trying to make decisions about where to compete or how to allocate resources.

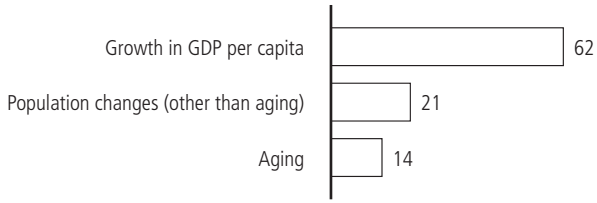
To exploit a megatrend successfully, you need to tap into insights that are far more specific. Take the example of aging, often cited as a megatrend that will generate demand. It is frequently held responsible for the growth of the healthcare industry, for instance. Many people believe it will transform other industries such as financial services and retail over the next ten to twenty years.

Let's analyze this megatrend at progressive levels of granularity. This should help us answer the question: would I choose to exploit the aging megatrend, and if so, where and how?

G0 and G1. At the **global** level, the impact of aging remains small in comparison with other forces, such as rising GDP per capita or population changes (Figure 1.5). Overall, we estimate that aging will reduce global GDP by 0.1 percent a year. If we then look at a single country—Italy, say—we see that aging has less impact here than on the world as a whole: it reduces Italian GDP by just 0.03 percent a year.

1.5 Factors affecting industry value

Importance of factors in predicting global added value,* 1980–2004, percent



* Relative importance of the three factors $\beta x^* \sigma x / \sigma y$, total correlation with industries >96%
Source: Global Insight; McKinsey analysis

G2. If we now look at the **industry** level, it's clear that the impact of aging varies by industry. Our analysis of the impact of aging on Italian markets reveals an interesting picture (Figure 1.6).[2] Healthcare, housing, and energy are likely to derive the greatest benefit from an aging population, with demand increasing by a compound annual growth rate of between 0.2 and 0.3 percent between now and 2020. Conversely, apparel, furniture, and cars are all likely to suffer a drop in demand of more than 0.1 percent a year, while games, toys, and sports will be hit hardest, with an annual decline of 0.4 percent.

G3. At the **sub-industry** level, we again find that the impact of aging varies. Take the Italian healthcare industry, which is expected to grow as a result of aging. Although the various sub-industries all reflect this upward trend, the degree of impact varies: for instance, "pharmacy" is expected to grow faster, at about 7 percent a year, than "health-related goods and services," at only 3 percent.

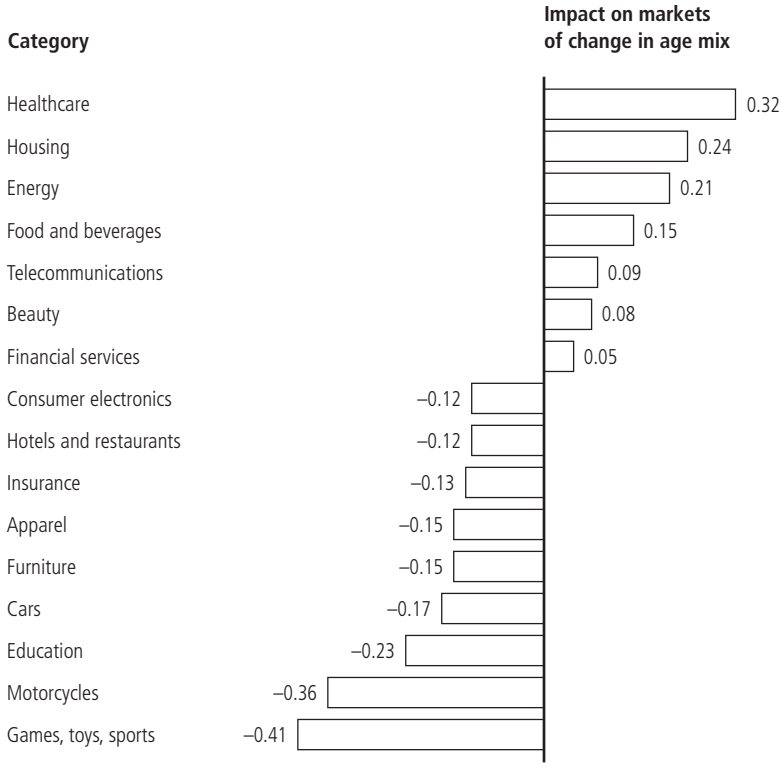
G4. To begin to spot real differences in the relative impact of aging on growth, we need to get down to the G4 category level. Within pharmaceuticals, for instance, aging is likely to have a positive effect on some drug categories (such as anti-hypertensives and calcium antagonists) and a negative effect on others (such as beta-blocking agents).

You get the idea: setting your growth direction requires you to move freely between the different levels of granularity while keeping your overall destination in view. Companies often describe their growth direction to the market at a G2 or G3 level, but specific granular strategies need to be put into action at the G4 and G5 level.

■ ■ ■

1.6 Scrutinizing a "megatrend"

The impact of aging in Italy, CAGR projections, 2005–20, percent



Source: ISTAT; OECD; Banca d'Italia; Global Insight; McKinsey analysis

In this chapter, we've seen that companies searching for growth will find little help in analyses of industries and megatrends, which are usually pitched at too high a level to offer any real insight. In order to identify growth opportunities, you need to dig down well below the industry level. Applying the idea of granularity to your own company and markets will help you to determine the level at which the most valuable and actionable insights are to be found.

The notion of granularity adds an interesting twist to the diversification debate. Because so much of the action is at the G4 level, it's hard to argue that only investors can and should diversify by themselves. Investors can diversify

at G2 level, and sometimes at G3, but not at G4. That is management's responsibility.

But how can management fulfill this responsibility? Is it possible to make decisions at this level of granularity in a large company without creating intolerable and counterproductive levels of complexity? Over the next three chapters, we'll show you that it is, and explain how you can do it.

NOTES

[1] R. Schmalensee, "Do markets differ much?" *American Economic Review,* 1985, volume 75, number 3, pp. 341–51; R. P. Rumelt, "How much does industry matter?" *Strategic Management Journal,* 1991, volume 12, number 3, pp. 167–85; A. M. McGahan and M. E. Porter, "How much does industry matter, really?" *Strategic Management Journal,* 1997, volume 18, pp. 15–30.

[2] Our analysis breaks down the forecast of retail consumption by category into demographic factors (change in age mix and net change in population) and other factors including rising GDP per capita. It assumes that non-consumption components of GDP such as investment, taxation, and social support are constant at 2003 percentages. Future savings behavior is extrapolated from trends over the past four years. Demographic forecasts factor in organic effects such as life expectancy, births, and deaths as well as net immigration. The study examines how organic age-mix variation changed consumption preferences across ages between 1990 and 2005. It cross-checks the estimates with actual 2005 consumption and applies observed preferences to consumption forecasts by sector through 2020. Immigrants are assumed to be less wealthy than the native population.