Jardine Fleming Research | INDIA | February 1997
SMALL CAPS

Small Cap Index
Historical overview

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SUMMARY

India Small Cap Index

- This report covers small caps in India from 1991 to the end of 1996. We have constructed a small cap index which reflects the bottom 10% of the top 500 companies by market cap. Since there are a vast number of companies in India, we felt it sensible to concentrate on those for which the data was, in some way, reliable.

- Our main purposes in constructing this index were to open a window on the world of small caps, to give switching ideas from small caps to big caps, and to give fund managers a yardstick against which they can measure their funds' performance.

- We have compared the small caps against the BSE30 Index and the MSCI. If you would like to receive more up-to-date information, you will be able to do so by visiting our internet research site (http://jf.prx.net), which should be up and running in 2097. The site will have data that you can download to carry out your own investigations.

- Indian small cap investors have had a miserable time over the past five years or so with the small caps underperforming the main index by 100% since 1991. This is despite the fact that small caps earnings grew faster than the main index stocks.

- In 1996, small caps underperformed by 35%. However, one gets the feeling that Indian small caps are on the threshold of a breakthrough. With the PER of small caps at a historic low and the dividend yield at a historic high, it would certainly seem that there is more of an upside than a downside.

- Our traditional indicators show a very interesting picture for Indian small caps. The payout ratio looks very stable (in spite of a freefall in the relative performance), the dividend yield relative is two standard deviations away from the long-term average, and the one-year earnings growth has stopped falling. As is usual with small caps, it will take investors some time to realise that a turning point is near.

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Preamble

Many myths still exist about Asian culture, philosophy and stock markets. Some of these arise because of the huge (though diminishing) cultural gap mainly between the European and American view of the world and the traditional Asian approach to life. Others exist because of a genuine lack of information. This lack of information is a major stumbling block in the world of small cap investing.

At JF, increasing the information flow is one of our key objectives; in the area of small caps investing, it is our *raison d'être*. We have decided to tackle the information vacuum in two ways: top down and bottom up. Our top-down approach focuses on developing a series of small cap indices for each of the countries in Asia along with an overall Asian small cap index. We follow this up with a bottom-up analysis by our team of small cap specialists.

The functions of small cap indices are manifold: to expose the nature of the small cap market in each country; to give investors a well constructed and realistic yardstick against which to measure their stocks; to provide a benchmark for valuing small caps; to enable investors to develop a strategy for switching from big caps into small caps; and to gather data on the issue of whether the so-called small cap effect exists in Asia.

Because of inadequate data, our indices may not be 100% accurate, but we feel they are the best that can be achieved. In any case, they will be a vast improvement over what existed before and will become better defined and more accurate over time.

Our goal is to expose the qualities and characteristics of Asian small caps and bring this investment class into the international fold. We will publish a booklet on our small cap index for each country and on our overall Asian small cap index. Our indices are the most extensive and detailed in Asia. They cover every market in Asia and represent about 2,500 stocks. Where data is available, we provide a history (with comment) of the index for a period of up to eight years.

JF Small Cap Products and Approach

We believe that what the fund management community req a 'one-stop shop' broker who really understands both the n of the markets and the management of the companies. Our JF is to be that broker.

Our 12 small cap indices cover all the markets in Asia. They make up the overall Asian Small Cap Index, which shows ho small caps in Asia have performed against the MSCI.

In our offices in each of the 12 countries we have analysts w equipped with both local knowledge and good connections i business community and who work hard to bring you up-to-d information, news and ideas which drive the small cap marke This information, along with our view of the small cap index trends, appears weekly in our *Small Cap Monitor* for each cou The *Small Cap Monitor* has established itself as the premier channel for information on small caps in the region and appea many dedicated small cap fund managers' desks around the g each week. No other broking house can offer the same depth a breadth of small cap information on a pan-Asian basis.

This year our analysts intend to spend most of their time searching out, from among the 2,500 small caps in Asia, those companies which have never been researched or visited and hence generally ignored by brokers. They will attempt to find those companies which will double or treble their share price over the next three to four years, as this is what small cap investors will ultimately be looking for.

Our aim is to provide you with the tools – the *Small Cap Index*, the weekly *Small Cap Monitor* and the *JiFi Note* – to help you keep your finger on the pulse of the small cap market.

Small Caps – What are they?

There seem to be several different definitions of small cap stocks. Some investors say a small cap is a company with a market cap under such-and-such a figure in US$, others say it is any company not in the main index. Some of these definitions are ethnocentric and, while they may be realistic (in that many brokers assume that the main investors in small caps are US and UK investment institutions), they are not logical or consistent. A small cap in one market may be a big cap in another market.

When investing in small caps, investors are trying to gain exposure to the rapidly growing (but risky) part of that economy – let's call it the entrepreneurial sector. Small companies are generally found in this sector because they can respond more quickly to change and are capable of finding, exploiting and defending niches within the economic environment.

Small caps, in whatever market, have similar characteristics. On the management lifecycle they are either at the entrepreneurial control stage or, at the upper end, close to the advent of the professional management stage. Thus, in management terms, they all suffer from the classic entrepreneur's dilemma – how to let the business grow while still keeping control.

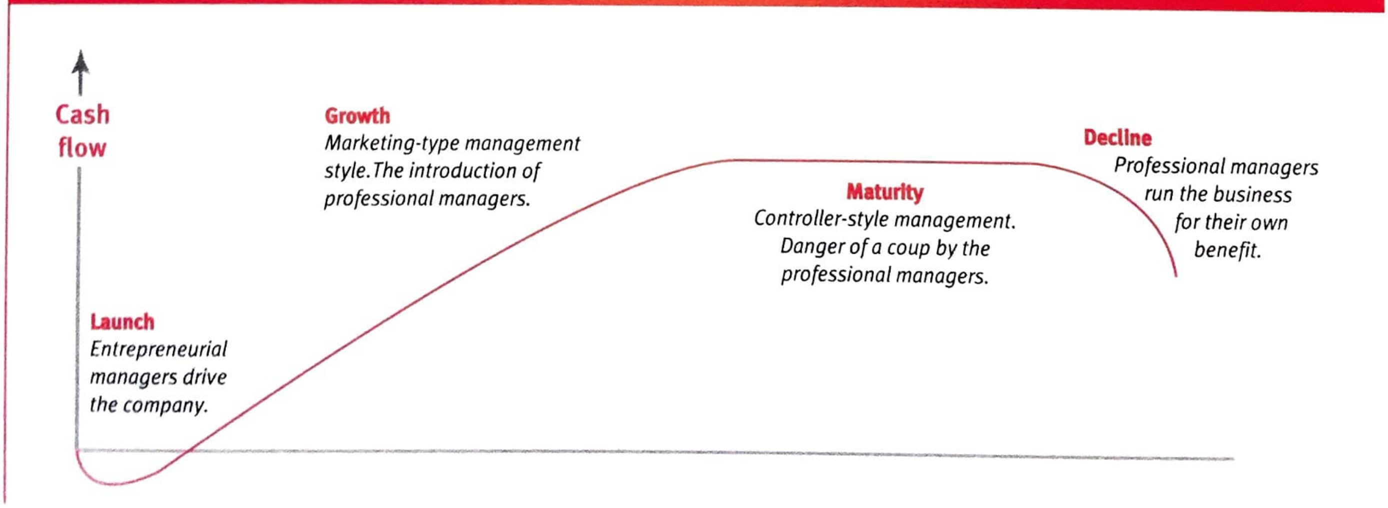
There are many possible solutions to this, and all have their pros and cons. The Asian system (based on a family-oriented culture) is to keep control within the family, which is considered to be an extension of the entrepreneur him/herself, by turning family members into the leaders of the professional managers' stage of control. The problem with this, of course, is that it is much harder to fire your brother/sister for making a blunder than it is to fire an outsider. Hence, the general Darwinian rule of the survival of the fittest does not tend to take place in family-dominated cultures and so the company/organism is not optimised.

The combination of entrepreneurial management structure and small size means that, in these companies, decisions can be taken very quickly and carried out with minimal upheaval. The number of intermediaries between the decision-maker and the executioner is small, so there is little chance of inertia or misunderstanding. Corporate strategy can be formulated, changed and executed all in an instant. The downside is that there may not be anybody to put across the other side of the argument and save the entrepreneur from making mistakes. This is why we believe that the most important thing about small cap companies is the quality of the management. It is also essential to understand the strategy of the company and the guiding ideas of the entrepreneur. A clear sensible strategy will often act in place of the dissenting voice and save entrepreneurs from believing in their ability to walk on water.

Idealised company lifecycle

The professional managers' stage of the company's lifecycle takes a small cap into the realms of the mid-caps and starts it on a path to becoming a big company and joining the ranks of the main index stocks. Ideally we should pick out those companies with entrepreneurial founders or managers and define these as the

Figure 1 The management lifecycle of a company



small cap stocks, but this is difficult to do in practice, because of both a lack of information (and agreement on definition) and the sheer volume of stocks.

In defining small caps, therefore, we need to make some simplifying assumptions. First, we assume that in each country those companies at the bottom of the stock market by market capitalisation are those most likely to exhibit the all-important entrepreneurial traits. A general rule of thumb is that the bottom 10% of a stock market by market capitalisation contains 80% of the number of companies in that market. Second, we assume that the monetary size of the market is not a key determinant of a company's management culture. We have already assumed that companies at the bottom of the market are, by definition, entrepreneurially driven, so using a blanket monetary cut-off value is meaningless and arbitrary as it will select mid-caps in some markets and even big caps in other markets.

Building the small cap indices

All of our new small cap indices are weighted by market capitalisation, we feel the closer an index is to representing real portfolios, the more meaningful it is. There are two basic ways of building indices and both have their faults. One is to choose by the number of stocks – e.g. the top 50, which will always reflect the biggest 50 stocks in a market, but the percentage of the market they represent will constantly change. The other way is to set the percentage of the market represented by small caps and then let the number of stocks in the index change.

We have chosen to build our indices on the principle that they should represent the bottom 10% of each market. This value will be struck once a year (on 1 January) and the chosen stocks will remain in the index for the full year.

When building an index, it is important to eliminate illiquid stoc as these affect the performance of an index by not moving – i.e underperforming when the index is going up and outperformin when the index falls). With this in mind, we have used a screen eliminate illiquid stocks. Our definition of illiquidity is based on the percentage of shares traded in the previous year (i.e. from 1 January to 31 December prior to the striking of the index). We split the bottom 10% of the market by market cap into two 5% groups. For the bottom 5% we eliminate all those stocks which have had less than 10% of the shares in issue traded during the past year. For the next 5% we eliminate those which have had l than 5% of the shares in issue traded during the past year. We thus expect to capture all the liquid companies in our indices.

Value of indices

Indices are a very valuable tool in the hands of the investor, helping with switching strategies, benchmarking and stock valuation. Indices help investors dispel some of their preconce ideas and prejudices about the world of small caps. They enable investors to see on a daily basis what is happening in small caps a particular country. Indices can often give timing indications for entering and leaving the small cap arena.

An index is also useful for valuing stocks on a PER basis. Stating that a small cap stock is at a discount or premium to the big stock index is meaningless as the latter is likely to be dominated by property companies and banks, while small companies are predominantly manufacturers. Hence one is comparing chalk with cheese and, not surprisingly, getting meaningless answers. It is more sensible to compare the PER of a small cap with that of its peer group

Figure 2 Small caps are found at bottom of market

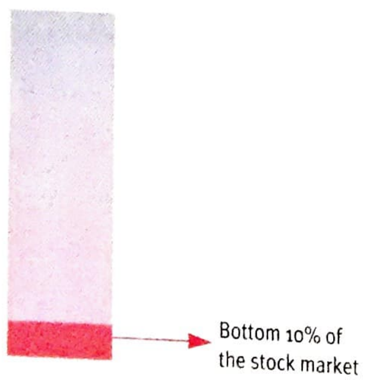
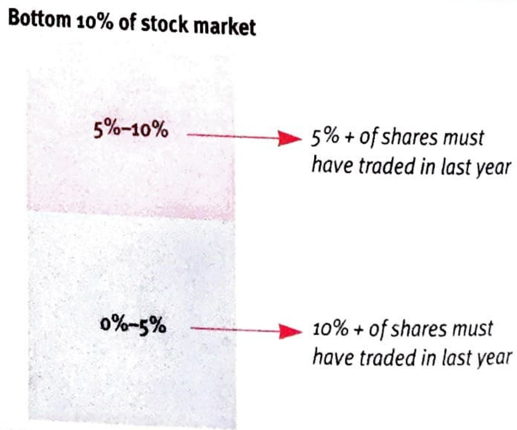


Figure 3 Screening out illiquid stocks



INDIA SMALL CAP INDEX

The India Small Cap Index will soon be available on Bloomberg, Datastream and Reuters and (in a downloadable format) on the JF Web Page.

The India Small Cap Index is a component of our overall Asian Small Cap Index. The various country weightings will be published monthly in our *Regional Small Cap Monitor*, enabling you to see (in the correct weighting) those indices which are either outperforming or underperforming the Asian index. When analysing the India Small Cap Index, we shall compare it against the BSE30 and against the MSCI. As investment management becomes more advanced in Asia, it will tend to drift away from absolute performance and move more towards relative performance. The standard for Asia is fast becoming the MSCI (Far East, US$, ex Japan).

Some other assumptions were made in developing this index. No volume data was available before 1994 and, as such, liquidity screening could not take place. Therefore, the pool from which the stocks which represent the small cap index were drawn was the largest 500 stocks in India—the assumption is that this is fairly representative of the whole small cap scene and that most of the other small caps would be excluded on grounds of liquidity anyway.

India small caps

Year	No. of companies in small cap index	Largest small cap stock	Market cap of the largest small cap stock Rs m
FY1991	180	Jayshree Tea	1,046
FY1992	183	Narmada Cement	1,786
FY1993	221	Vam Organics	2,348
FY1994	264	Apple Industries	3,192
FY1995	259	Orient Paper	3,116
FY1996	144	Ponds India	8,111

Performance changes 1991–1996

Change in capital return	%
JF-INDA-SCI	111.84
BSE30	215.71
MSCI	112.85

Change in total return	%
JF-INDA-SCI	136.09
BSE30	239.78
MSCI	NA

Valuation 1991–1996

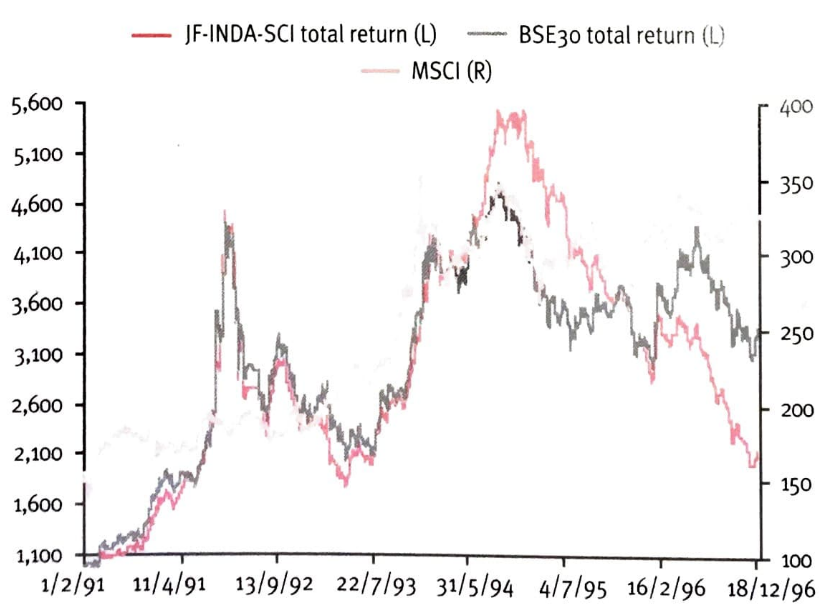
Correlation between	
JF-INDA-SCI and KOSPI *(capital return basis)*	0.76
JF-INDA-SCI and MSCI *(capital return basis)*	0.04

	%
JF-INDA-SCI EPS growth	292.93
JF-INDA-SCI DPS growth	347.34
JF-INDA-SCI average payout ratio	0.26

	%
BSE30 EPS growth	247.04
BSE30 DPS growth	204.72

Until 1995, investors in India did not d badly from investing in small caps. Sin then, however, it has been downhill al way. At present, it would appear that s caps are building up for a new run.

Performance

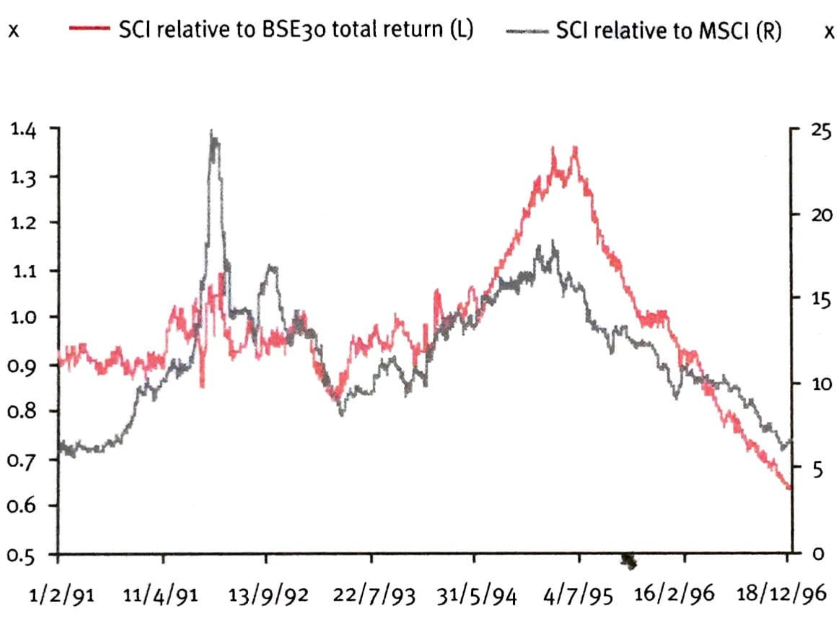


The SCI and the BSE30 were shadowing each other until late-1994 when the SCI decided to go solo. This career move worked very well for a couple of years. Recently, however, it appears that its fans have deserted it and headed back to the golden oldies.

Although the shapes of the BSE30 and the SCI graphs are similar, the correlation between the two is not high—0.76. This suggests that there is real value to be had in switching between the two indices. We will examine later whether such a strategy can be derived.

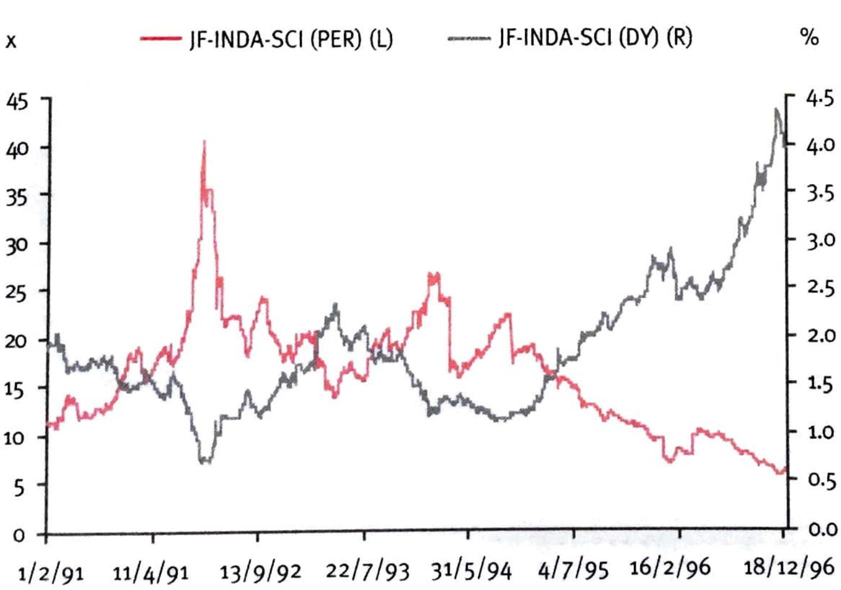
1991–1996 performance

Relative performance



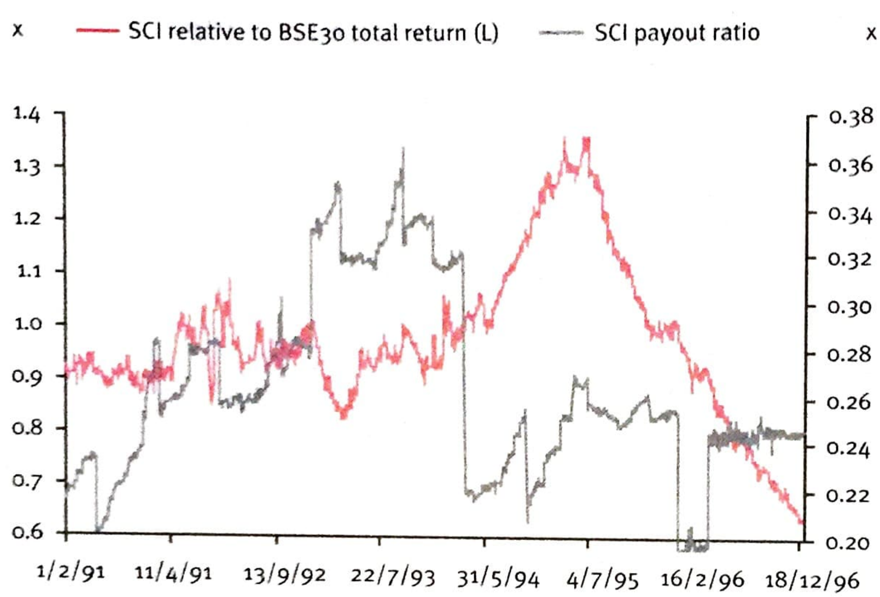
As indicated in the previous graph, the relative performance was rather pedestrian until 1994. 1994 and 1995 saw a series of smash hits for the India small caps, but it soon it disappeared in a puff of smoke. People are now asking each other, 'Whatever happened to Indian small caps?'

SCI PER and SCI DY



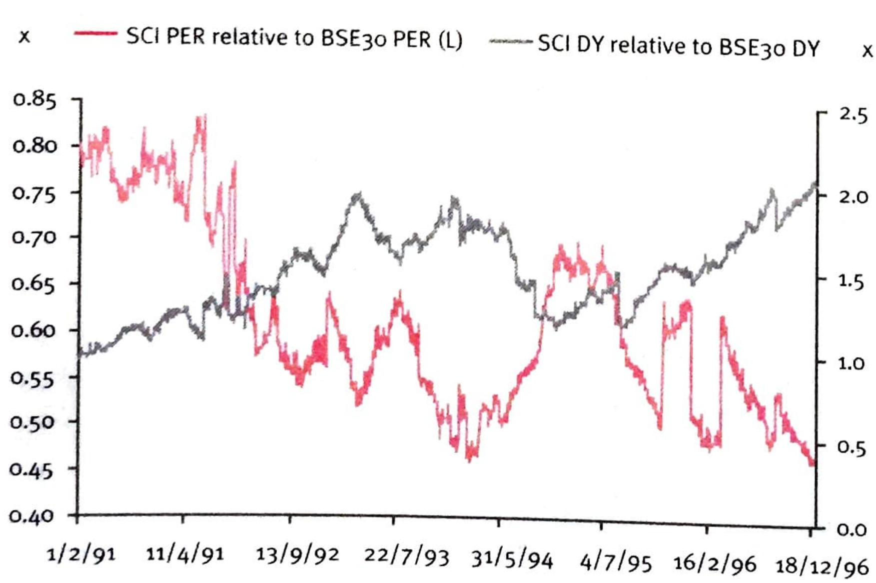
A PER of 40 in 1992 could be said to have been a touch ambitious, although the relative performance (as seen above), ignored this peak. Currently (as is apparent from this graph), it seems that Indian small caps are working away feverishly on their new album—preparing for a comeback. With a PER of 5 (a historic low), and a dividend yield of almost 4.5 (a historic high), the Indian small caps are set to take the world by storm. Investors should watch out for the spectacular comeback.

SCI relative performance and payout ratio



This is an interesting graph for sm
indices because an increase or a d
in the payout ratio is often reflecte
relative performance. In India, the
peaked well ahead of the relative
small cap performance and the fal
payout ratio occurred before the fa
the relative. The savvy investor wo
have done well out of this, but only
she had known about it. The curre
payout ratio, which is stable, is not
reflected in the relative performanc
suggests that small caps are overso

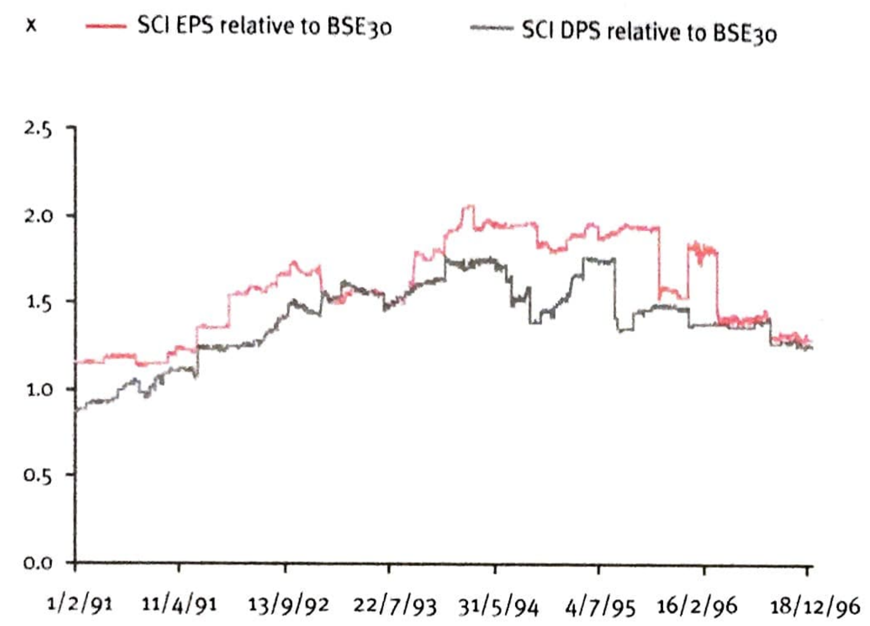
SCI DY and SCI PER relative to BSE30



This is a revealing graph as well because the relative dividend yield is usually a good indicator of the direction in which small caps will move next. In general, small caps give a higher dividend than the main stocks—this is one compensation for the higher risk of investing in small caps. Usually, when the small cap index DY falls below the main market DY, we witness the peak of the small cap rally. Historically, a good time to buy small caps (compared with big caps) is when the PER is about 50% of the BSE PER and the DY is more than 1.5 of the BSE30. And it comes as no surprise that this is exactly where it stands at the moment.

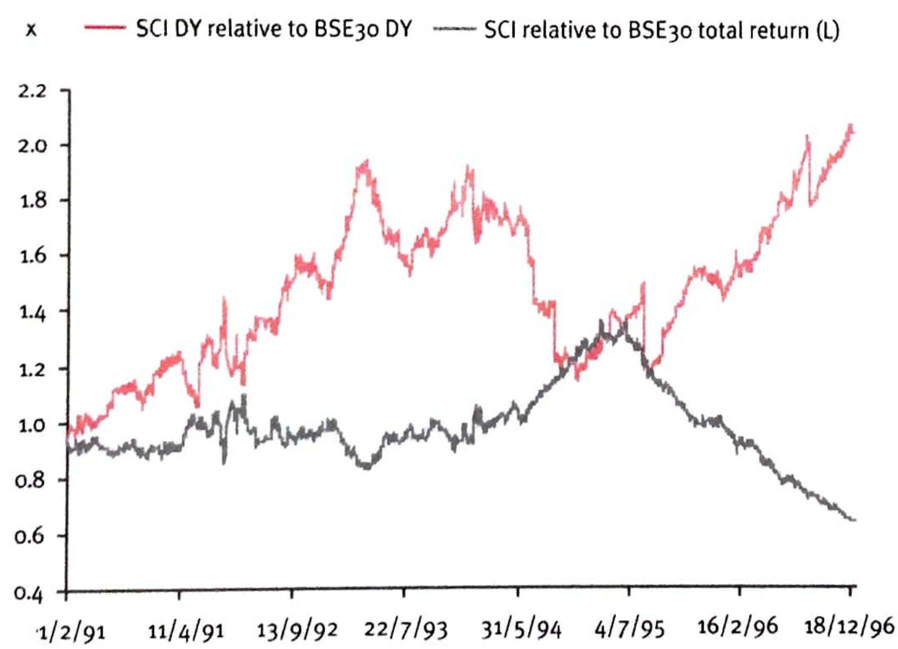
1991–1996 performance

SCI EPS and SCI DPS relative to BSE30



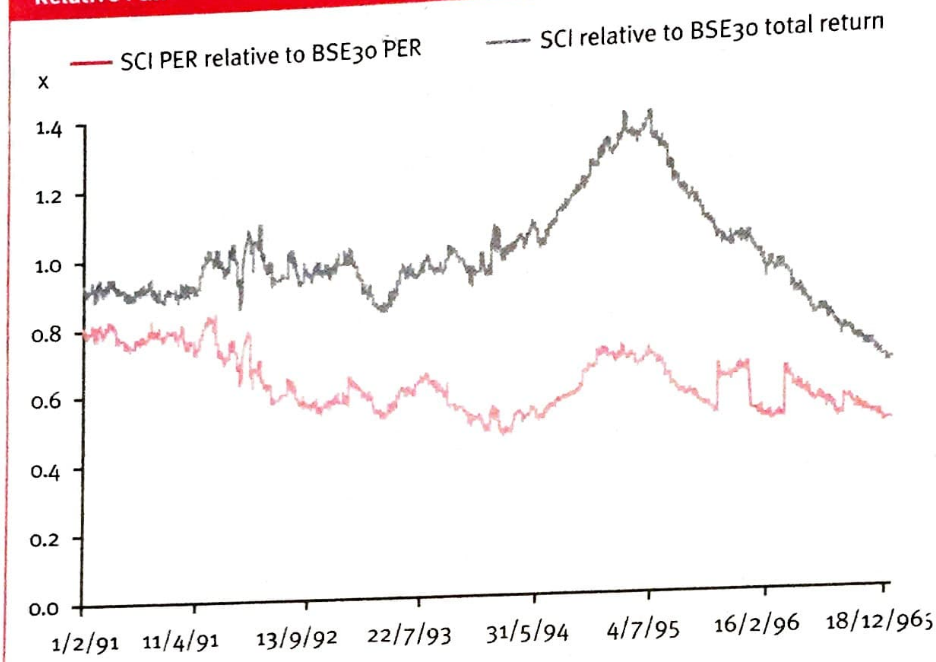
Before the SCI went solo, the relative growth in earnings was strong, but the fans failed to realise the talent of the small cap player. In 1994, after small caps had proven their ability, the fans went ecstatic and, as a result, the SCI opted for a solo career. By late 1995, the music started to sound very similar and little in the way of inspiration was forthcoming. The fans deserted in droves. As is usual, the fans were late in realising that a new talent was around and in realising when that inspiration dried up. We can see from the above graph that currently, a new source of inspiration is starting to form in the shape of stabilising EPS and DPS relative to the BSE30. Once again, however, we fear the fans will be late in recognising the potential.

Relative performance and DY



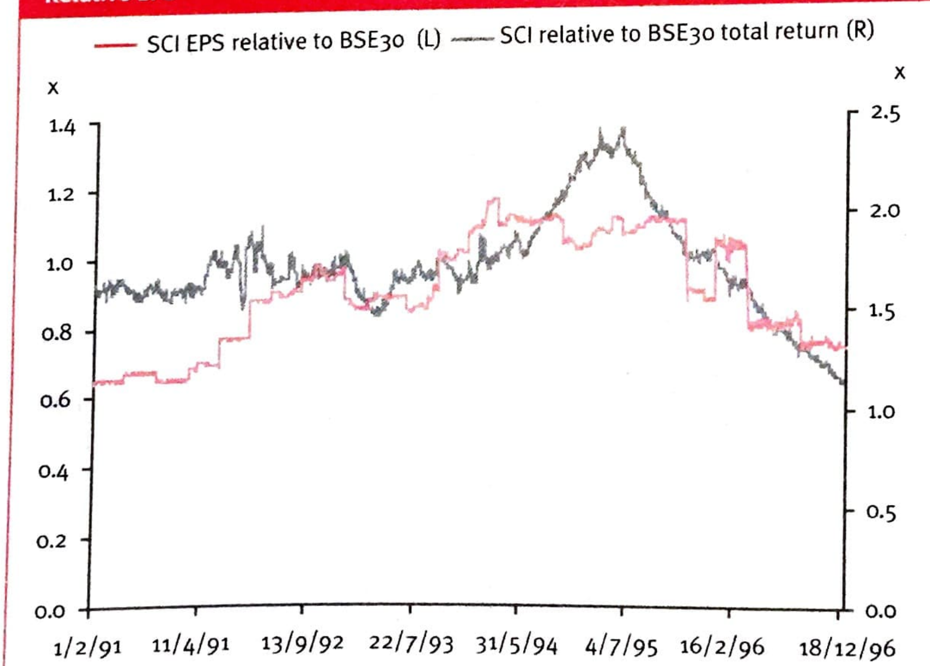
Traditionally, small caps peak relative to the main index when the DY relative falls much below the parity level. They are usually at their cheapest when the DY is between the 1.3–1.5 level. The relative peak in 1995 occurred at a DY relative of 1.2—this may well be the magic number for India. In other countries, it varies between 1x and 0.8x. The buying signal seems to be around 1.8x of the DY from the BSE30. At present, the DY relative is around 2—this makes us quite bullish in Indian small caps.

Relative PER



It seems that a PER relative of o associated with a period of und of small caps: 0.7x seems to be overvaluation number. Combin magic numbers from the DY an should give a fairly good handl small cap market valuation. It w wise move to buy now—before run out of stock when the fans that small caps are the hottest town again.

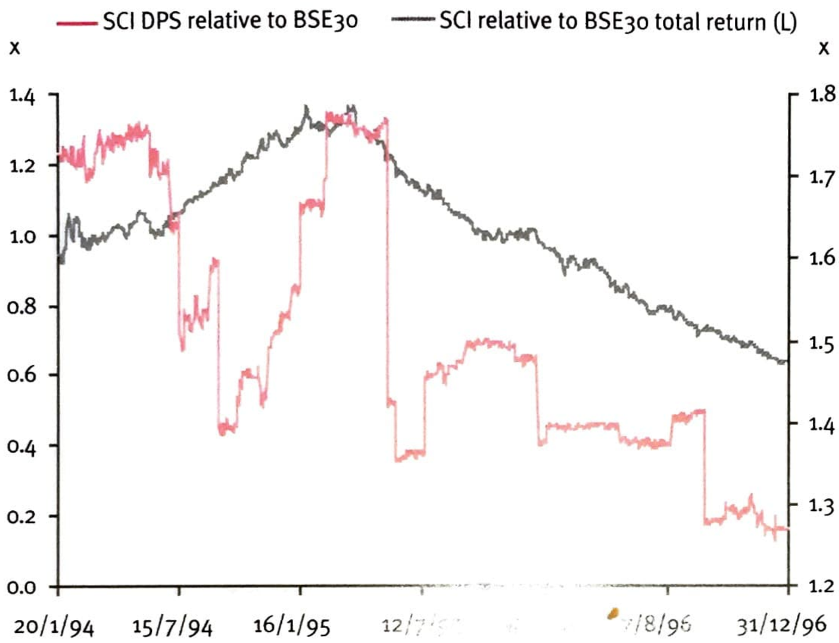
Relative EPS



The reason small caps decided to go solo is illustrated in this graph—basically they were the ones making more money. However, they also started to lose money before they hit the peak of popularity—the writing was on the wall. At the moment, the situation seems to have stabilised somewhat, and it may be time for small caps to rejoin the band.

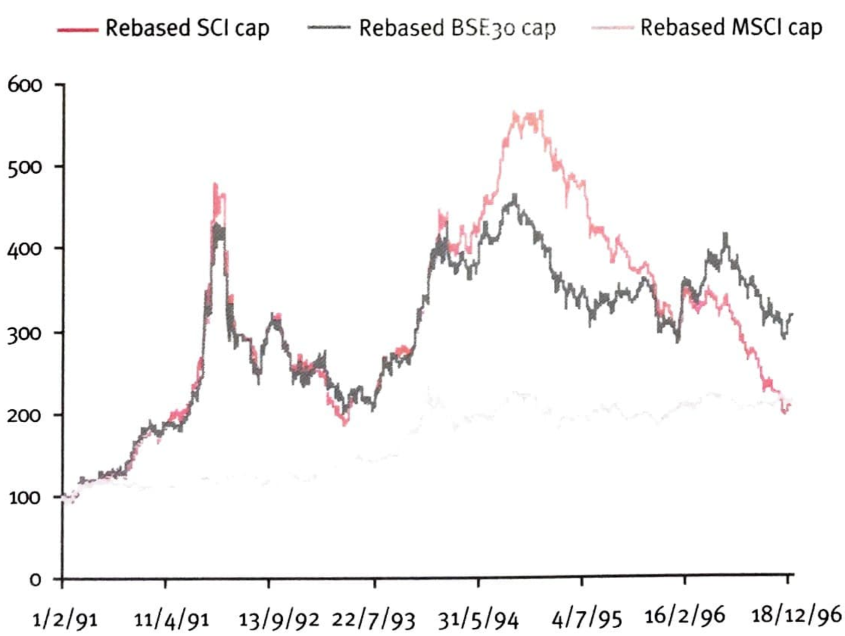
1991–1996 performance

SCI DPS relative to BSE30



Looking at this graph, it appears that the market was late in anticipating the big increase in dividends. However, all the money made from going solo was spent quite quickly. The current situation would seem to suggest that having spent the money on having a good time, it is now time to start being sensible again.

Capital returns rebased at 100



The MSCI never made it into the charts. The fans preferred the local dance rhythm to the international beat.