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RESEARCH NOTE DEMYSTIFYING US MICRO CAP STOCKS

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INTRODUCTION

Forty years ago investors viewed small stocks as too risky, too illiquid, too inaccessible, and too niche. In short 'small' was not 'institutional grade'. The few institutions that challenged convention and invested in 'small' were rewarded with outsized returns until, decades later, the class finally became 'institutionally acceptable'.

The rhythms of history are now echoing in US micro caps: too risky, too illiquid, too inaccessible, too niche. However, with micro caps being around half of all publicly traded US companies, incorporating them into a broad equities program expands an investor's opportunity set. Investors who take advantage of this opportunity can expect superior risk-adjusted returns. A substantial proportion will likely flow from active management.

We believe that early unconventional adopters of US micro cap stocks can expect reward.

MICRO CAP IS NOT A SUBSET OF SMALL CAP

Just what constitutes a US small company has changed considerably as markets have evolved. Twenty years ago, they were stocks with a market cap of up to \$US750 million. Today this same bound defines micro caps while small cap ranges from US\$750 million to US\$2.5 billion. Investing in small cap companies is now a broadly accepted strategy. Institutional investors, consultants, private wealth groups and individuals embrace it. By comparison, investors have largely ignored micro cap stocks.

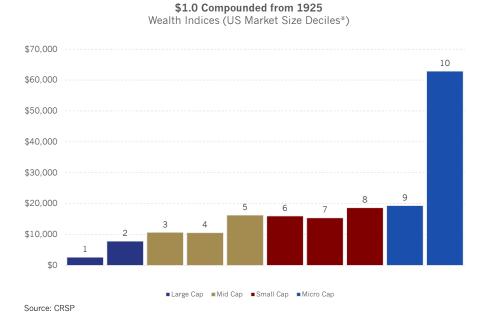
Investing in both small and micro cap companies requires special skills. Their exploitable market inefficiencies are quite different because these companies trade and act differently to their large counterparts. The need for specialisation is magnified in micro cap where sell-side coverage is limited or non-existent. Further, there is often no readily comparable peer group. This makes it difficult to look to similar businesses to guide valuations. The combination makes idea generation, company analysis and valuation a labour-intensive process.

The micro cap information void also causes small cap managers to gravitate to the larger end of the asset class, where information is more available and liquidity is greater. By doing so, investors miss the significant return opportunities that micro cap offers. Over time the smallest names do tend to outperform the largest and by a considerable margin. Chart 1 on the next page shows that micro cap companies (those in the ninth and tenth decile) have significantly outperformed their larger counterparts.

1 The deciles used in this paper are defined by the Center for Research in Security Prices (CRSP) breakpoints for the US market. CRSP uses only the NYSE to calculate the breakpoints, then backfills the rest of the US market (NASDAQ) into those breakpoints. The number of names in each decile should be roughly equal until the 10th decile where there is a broadening of the number of names due to this NYSE calculation and then filling NASDAQ into those breaks, adding to the number of companies in the 10th decile. The breakpoints are calculated annually and used throughout the year, therefore the number of names in each decile will move around through the year as the market moves relative to the breaks. This methodology is used across the other markets to recreate a similar breakdown.



CHART 1: Compounded from 1925 – US Market Broken Down by Deciles



Micro cap companies have many similar drivers of returns to private equity investments, but with substantially better liquidity and less leverage (if any at all).

Insider ownership is highest within micro cap companies. This creates good alignment between management and stakeholders. Management teams are often more entrepreneurial and the skill of toptier management teams can have an enormous impact on the direction of these smaller, often single-product line companies. Micro caps are also more prone to M&A activity and attract the associated premiums. Almost 60% of M&A activity in the US occurs in the micro cap sector.

A DEDICATED US STRATEGY MAKES SENSE

Diversity

The US has the world's deepest micro cap market with considerable diversification opportunities unavailable elsewhere. There are just over 1500 companies in the bottom two deciles of the US share market (see Footnote 1), precisely the deciles that have generated the highest returns. Those companies have an aggregate market value of US\$285 billion. By comparison, Europe has almost 1000 companies in the ninth and tenth decile, but with an aggregate market capitalisation of only US\$7 billion.

TABLE 1: Statistics - Comparing Micro Caps in Various Equity Markets²

	USA	Europe	Australia	Asia ex- Japan	Japan
Total Number of Companies	1,534	978	457	464	534
% of total companies	46%	21%	26%	23%	20%
Aggregate market value (US\$b)	285	7	1	8	18
% of total market value	1.3%	0.1%	0.1%	0.3%	0.4%

Source: CRSP

2 Micro caps are defined by the smallest 20% of the market.



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Relative Liquidity

The average traded volume of the bottom two deciles further supports a dedicated US strategy. In the US, the average traded volume is US\$1 billion in the tenth decile (jumping to US\$5 billion in the ninth.) The same level of liquidity is not available until the seventh decile in Japan, the third in Europe and only (the lower part of) the first in Australia, as highlighted in Table 2.

TABLE 2: Weighted Average Trading Volume (US\$ billion)

Decile	USA	Japan	Asia ex-Japan	Europe	Australia
1	406.3	68.9	12.8	47.9	17.6
2	117.0	12.1	1.9	4.0	8.0
3	71.9	6.8	8.0	1.0	0.2
4	41.7	3.1	0.6	0.4	0.1
5	30.2	2.2	0.4	0.2	0.0
6	19.3	1.6	0.3	0.1	0.0
7	13.5	0.9	0.2	0.1	0.0
8	8.8	0.8	0.1	0.0	0.0
9	5.2	0.4	0.1	0.0	0.0
10	1.1	0.2	0.0	0.0	0.0

Source: CRSP

Cultural

Investing in the US alone lowers language and cultural barriers and reduces unfamiliar regulatory and political risks inherent in cross-border strategies.

Crucially, the US stands out for its entrepreneurial spirit. It has one of the highest start-up rates and percentage of people involved in start-ups. This ensures an environment ripe for micro cap companies to thrive in. These companies often have small, highly motivated management teams, simple business models and concentrated product lines that position them for aggressive growth. Importantly, in the US management objectives are more likely to be aligned with external equity holders than in other countries.

As a result, the number of US-only strategies has grown. Meanwhile there are a limited number of regional or global micro cap strategies. These generally have a strong home-country bias and are often tightly capacity constrained, particularly in Europe and Australia. Further, many 'global' funds are predisposed to have a large allocation to the US given the depth of the US market.

US MICRO CAP COMPANIES ARE NOT COMPARABLE TO AUSTRALIAN MICRO CAP COMPANIES

Although there are similarities between Australian and US micro cap companies in terms of both being prone to aggressive growth and the opportunity for outsized returns, the differences are substantive.

In both markets, there is potential for active managers to generate outsized returns due to the lack of broker interest and the smaller amount of attention that micro caps stocks receive from large



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institutional investors. This creates the market environment for discovering exceptional investment opportunities in this sector.

The most significant difference is size. Australian micro caps are those that fall outside the ASX 250 or 300 and consist of around 1500 listed companies ranging from a few hundred thousand dollars to A\$500 million. By comparison, US micro caps range up to US\$750 million in size. The largest company in the Index is over US\$5 billion and the smallest around US\$50 million, with a weighted average of around US\$500 million. To put the relative size in perspective, only about fifty companies on the ASX have a market cap greater than A\$5 billion. See Table 3 for further details.

TABLE 3: Micro caps in the US vs. Australia

	United States			Australia		
Decile	Mkt cap (US\$b Breakpoint)	# of Firms	Aggregate Mkt Size (US\$b)	Mkt cap (US\$b Breakpoint)	# of Firms	Aggregate Mkt Size (US\$b)
1		173	13,879		162	1,120
2	22.22	193	3,101	.67	161	55
3	9.52	187	1,539	.16	162	17
4	5.60	202	1,047	.71	161	8
5	3.80	205	661	.36	163	4
6	2.69	234	607	.20	161	2
7	1.76	317	434	.11	161	1
8	1.16	329	344	.06	162	1
9	.70	466	182	.04	163	0
10	.35	1,068	103	.02	294	0

LIQUIDITY IS NOT (THAT) LOW AND TRADING COSTS ARE NOT (SUBSTANTIALLY) HIGHER

Liquidity in US micro caps has increased significantly and steadily over the past twenty years largely through the growth of dark pools such as ETFs and electronic communications networks (ECNs). Trading volume has more than doubled in the past decade. That increased liquidity has translated into increased capacity, making the asset class investable even for large investors cautious of moving the market.

Further, the increased use of automated trading has narrowed spreads and increased trading volume. These have more than doubled in the past decade. It is now easier to trade a US\$1 billion portfolio than it was to trade a US\$50 million portfolio 20 years ago. These forces have brought trading costs down significantly, limiting their adverse impact on investors' returns.

To date there is limited institutional investment in micro caps. Previously, institutions had difficulty securing sizable allocations, restricting their ability to invest. The steady increase in liquidity has alleviated much of that concern. This has created an opportunity for large investors to gain a strong first mover advantage by securing constrained capacity with top tier micro cap managers. Investors should identify managers with sufficient capacity and avoid those trading at excess capacity.

RISKS ARE MITIGATED PARTICULARLY BY DIVERSIFICATION

Investing in micro caps is sometimes (and misleadingly) equated to investing in penny stocks, those that trade at very low prices and that are often small risky start-ups. In reality, micro caps are often long-established businesses operating in niche or regional markets. They tend to be single business-line firms, with strong management teams and solid balance sheets. This substantially mitigates risk. Micro caps also trade on the NYSE or NASDAQ, the same exchanges as their large counterparts. Therefore, they are subject to the same risk-mitigating regulatory and reporting requirements.

However, micro caps do carry higher risk than larger companies do. A narrow product range or regional focus can lead to a higher degree of unsystematic risk than for larger companies, which may have a diverse mix of business lines and operate in many countries (involving exposure to an entirely different set of risks). The threat of lawsuits and negative PR can also have a bigger impact on smaller companies less able to deal with those problems.

The US micro cap universe is sufficiently large to build a diversified and liquid portfolio. Only in the US does the micro cap sector cover a wide range of industry sectors, allowing investments across technology, health care and financials. By comparison, financials and materials (with only a handful of companies within each sector) dominate the Australian market. While both countries exhibit a bias towards financials it is less pronounced in the US and the US sector is more diversified across subsectors and has a larger number of companies.

S&P/ASX 200 Russell Microcan 17% 14% 5% ■ Consumer Discretionary 3% 4% ■ Materials 2% 1% ■ Industrials 45% ■ Telecom 20% ■ Energy ■ Health Care Consumer Staples ■ Information Technology 5% 0% 6% 13%

CHART 2: Sector Breakdown of Various Indices

Source: S&P, Russell

CONCLUSION

The US micro cap market offers diversity, liquidity, and low regulatory and cultural barriers. There is a strong opportunity for long-term investors willing to challenge convention, echoing the opportunity offered to early adopters of small cap equities. The depth, size and diversity of the United States' equity market make it the most logical and efficient region for this type of strategy.

Incorporating micro caps into a broad equities program expands the opportunity set: around half of all publicly traded US companies are micro caps. Investors who do so can expect superior risk-adjusted returns, a substantial proportion of which will flow from active management. By securing capacity with a dedicated, active manager, early adopters will not only get potentially higher returns, but also effectively diversify their overall equities exposure.



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