SEC Investor Advisory Committee

Capital Formation, Smaller Companies, and the Declining Number of Initial Public Offerings

Jeffrey M. Solomon
President
jeffrey.solomon@cowen.com
The State of the Small Cap Ecosystem and Its Impact On Capital Formation

- The decline in small cap IPOs is not the result of only one factor, but rather many factors impacting market participants in the ecosystem for Emerging Growth Companies (EGCs)\(^1\)

- The changed nature of the entire small capitalization ecosystem should be assessed when considering improvements to enhance the flow of capital to EGCs through the public markets

- This presentation aims to further that discussion by looking at how the three primary market participants in this ecosystem have evolved over the past few decades since the decline in new listings began:
  - Capital Providers (i.e. individual and institutional investors)
  - Investment Banks
  - Issuers

\(^1\) Under the Jumpstart Our Business Startups (JOBS) Act of 2012, an “emerging growth company” is defined as an issuer with annual gross revenues of less than $1 billion during its most recent fiscal year
Capital Providers Are Not the Same As They Once Were

- Individual Investors
  - For the majority of the 20th century, retail investors were the primary capital providers
  - Today, there are far fewer individual investors owning stocks as many retail brokerage firms have migrated their business models to tactical asset allocation with management fees vs. individual stock recommendations for their clients
  - The rapid growth in discount brokerage has reduced the outright cost of investing for many individual investors, but this benefit has also created a new market reality
    - Equity market structure has changed to a low cost model with decimalization and Reg NMS
    - The amount of Wall Street research written on small companies has declined even as the percentage of individual ownership in small caps has increased
  - Important regulations, which protect individual investors, make it more expensive for issuers and investment banks to focus their business models on small capitalization stocks
Capital Providers Are Not the Same As They Once Were (cont’d)

- **Institutional Investors**

  - Active managers are much bigger than they used to be

  - Over the past decade, there has been rapid growth in passive investment vehicles which do not participate in capital formation

  - Size and scale matter for active managers because costs have increased due to regulation and other expenses

  - Smaller cap IPOs and equity financings are less impactful to the returns of large active managers than they used to be
Changing Landscape for Active Managers and Impact on Small Caps

- Active managers have an increasing need to outperform their benchmarks as they are being replaced by cheaper passive vehicles.

- Active managers are running more concentrated portfolios with larger cap stocks that are more liquid and can offer higher absolute dollar investment returns than small caps.

- The sheer size of many active managers makes small cap investing less compelling as they must pick numerous winners to aggregate positive performance (see table below).

- Today, retail investors (or pension funds) are being channeled into managed accounts and passive products as opposed to active managers and individual stocks.
  - Investment decisions are, in essence, being ceded to passive funds.

<table>
<thead>
<tr>
<th>AUM of the World’s Top 20 Investment Managers (By AUM)¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>$ trillion</td>
</tr>
<tr>
<td>Active</td>
</tr>
<tr>
<td>Passive</td>
</tr>
<tr>
<td>Total AUM</td>
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While the growth in passive assets exceeded that of active, note that the AUM of large active managers are getting even larger.

Growth in Passive Funds Over the Past Decade

- Passive funds do not participate in equity capital formation

### December 31, 2016

($ trillion)$

- $3.0
  - 46%
- $3.5
  - 54%

#### US Equity Active Assets

- US Equity Passive Assets

### Cumulative Flows To & Net Share Issuance of Domestic Equity Mutual Funds and ETF

($ billion, 2007-2016)

- In 2016 fund flows continued to migrate towards passive funds
- According to Morningstar:
  - $263 billion exited actively-managed US equity funds
  - Passive equity US funds saw $237 billion in inflows, more than twice the inflows in 2015
- During the 2007-2016 period:
  - Index domestic mutual funds and ETF experienced $1.4 trillion in inflows
  - Actively managed domestic mutual funds saw $1.1 trillion in outflows

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1 Morningstar DirectSM U.S. Asset Flows Update, January 11, 2017
Economics of a Small IPO to a Large Investment Fund

- The potential returns of small IPOs are not meaningful enough for many large institutional investors to allocate time and capital away from investing in the secondary market

- **Example:**
  - IPO proceeds: $100 million
  - Allocation to top 5 investors: $45 million or $9 million per investor\(^1\)
  - AUM of multi-billion investment fund: $20 billion\(^2\)
  - Allocation relative to overall size of fund: 0.045%

  - If the stock *doubles*, the investment *only* provides +0.045% return to the overall fund
  - Many large funds ask the question, “Why bother?”
  - These economics make more sense for smaller investment funds

- **EXCEPTION: Small Cap Biotech and Life Sciences IPOs work because:**
  - Biotech companies are perennial capital users. So there are multiple chances for investors to participate in financings as the companies grow
  - These companies have the ability to provide 5-10x investment returns if they are successful at drug discovery

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\(^1\) Based on Cowen’s 5 most recent IPOs between $50 million and $150 million in proceeds

\(^2\) For illustrative purposes only. This is the AUM of a small cap growth fund at a large, well-known investment management company
Smaller Funds Face Increased Regulatory and Operating Costs

- **Increased regulation**
  - Under Dodd-Frank, hedge funds with more than $150 million in regulatory assets under management in the US must register as an investment advisor
  - Other regulatory and compliance-related obligations include:
    - File Form ADV
    - File Form PF (to assist SEC and CFTC in monitoring financial stability)
    - Designate a chief compliance officer (can be in house or outsourced)
    - Maintain financial books and records to facilitate SEC examinations
    - Keep client assets with a qualified custodian
    - Conduct and monitor Anti-Money Laundering program, including reporting to FinCEN
    - Comply with state Blue Sky laws (filings in every state where the firm has an investor)
    - Report annually to CFTC, even if not a commodity pool or trader adviser
    - Under FATCA, report financial information for all non-US clients
    - AIFMD compliance for funds with investors from the EU, even if domiciled in the US
    - MiFID II implementation

- **Significant upfront technology and operational expenses**

- **High management company expenses for emerging funds**
  - 244 bps for firms with AUM of $100 million
  - 94 bps for firms with AUM of $500 million

  Ø *Small funds are potential investors of small IPOs. However, in the face of these pressures (among other challenges), hedge funds are consolidating (to increase scale) or converting to family offices (to reduce regulatory requirements)*

Investment Bank Profitability Has Shifted Away From Equity Capital Formation

- The number of small investment banks that focus on capital raising has decreased significantly
  - Many investment bankers now focus exclusively on M&A advisory and there has been rapid growth in small investment banks that only provide advisory services instead of capital raising

- Large investment banks tend to focus on larger issuers where they can sell multiple products including M&A and debt financing, instead of smaller issuers that just need equity
  - From a cost and resource perspective, equity capital markets is one of the most expensive services for an investment bank
  - In most industries, small cap issuers are unlikely to be a repeat equity capital issuer; therefore their long-term value as a client is lower than a large cap issuer

- Prolonged low interest rate environment has banks focused more on lending/debt capital markets than on equity capital raising

- Decrease in small cap research and IPOs stems from these key economic changes
  - Market structure evolution
  - Increased regulation
Market Structure Evolution, Increased Regulation and the Decline of US IPOs

- From 1990 to 2000, “small IPOs” accounted for 67% of total U.S. IPO activity
- From 2012 to 2016, “small IPOs” accounted for 19% of US IPO activity

Source: Dealogic as of June 9, 2017. IPO data excludes REITs, closed-end funds, SPACs, and transactions with <$5mm in proceeds
Fragmented Equity Market Structure, Decimalization and Declining Spreads

- The markets have moved to maker/taker, electronic market making, smart order routing and speed vs. a small cap sponsorship model which used to include trading net (market making) at wider spreads
- With 50 trading venues today, it is more difficult to find clusters of liquidity and buyers and sellers to find each other
- Commissions (spreads) have declined to a point where there is little economic incentive for brokers to trade small cap stocks

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>NYSE &amp; NASDAQ equity market share</td>
<td>92%</td>
<td>27%1</td>
</tr>
<tr>
<td># of Exchanges</td>
<td>82</td>
<td>12</td>
</tr>
<tr>
<td># of Alternative Trading Systems</td>
<td>0</td>
<td>38</td>
</tr>
<tr>
<td>Average commission per share</td>
<td>$0.05</td>
<td>$0.0223</td>
</tr>
</tbody>
</table>

1 NYSE and Nasdaq only. Excludes NYSE Arca, Nasdaq BX, etc.
2 Includes Nasdaq and the traditional stock exchanges NYSE, Amex and regional exchanges (Boston, Chicago, Cincinnati, Pacific, and Philadelphia exchanges).
3 TABB Group
Global Research Settlement And Its Effect On Small Cap Research

- Significant portion of small cap stocks are under-covered, or not covered at all, by sell-side analysts
- Little or no research coverage generally corresponds with lower stock liquidity
- Reduced interest in small caps may be from lack of research coverage
- Reduced / limited research coverage may be particularly disadvantageous to individual investors, who generally have limited research capabilities on their own

% of Companies on Major US Exchanges Without Research Analyst Coverage

Collectively, 61% or 771 of the 1171 listed on a major US exchange below $100 million in market cap do not have research coverage

Source: CapitalIQ as of June 9, 2017
Increased Regulation Has Raised the Cost of Sponsoring Small Cap Companies

- As a result of the Global Research Settlement and other factors highlighted in this presentation, economic resources available to support small cap research has diminished
  - Economic model of the majority of investment banks built around larger market capitalization companies
  - Large cap research has always subsidized small cap research to some extent; That is even more the case today

- Typical investment bank’s economics of a small IPO are not as attractive as they used to be\(^1\)
  - Average underwriting fee per book runner: $1.8 million (assuming 3 book runners)
  - Average underwriting fee per co-manager: $587,000 (assuming 8 co-managers)

  \(\textit{These fees should be considered in the context of ongoing client-related costs once the transaction is completed: (i) market making, (ii) writing research, (iii) sponsoring non-deal roadshows, (iv) hosting conferences and other events, etc. It is very difficult to generate a sufficient amount of trading commissions to cover these costs.}\)

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\(^1\) Based on Cowen’s 5 most recent IPOs between $50 million and $150 million in proceeds.
Upcoming MiFID II Regulation May Further Impede US Capital Formation

Effective January 3, 2018, the EU will be subject to regulations promulgated under MiFID II

This will add substantial requirements to the procurement of sell-side research by European investment managers

Asset managers will be required to document and justify their research spending, and separate payment for research from execution payments

- While MiFID II is a European regulation, the effect will be felt in the US
  - A number of large global asset managers are initially aiming to “ring fence” their US investment management businesses from the impact of MiFID II regulation
  - Because many asset managers are global and in some part regulated by the FCA, these rules are expected to trickle down to the rest of the world as well

- Economic impact
  - European-domiciled global asset managers expect research payments to broker-dealers, including those in the US, to decline by more than 10%
  - Nearly 11% of US-based asset managers believe that research payments to the sell side are likely to decline by 10%+1

- Potential unintended consequences
  - Less research overall, especially for small cap companies
  - A number of sell side research providers may drop out of the business or larger sell-side research platforms will significantly reduce their workforces2

1 Westminster Research Associates survey dated April 2017
2 Financial Times, “Asset mangers and lenders in fierce negotiations over the cost of investment research,” February 28, 2017
Today, Issuers Are More Likely To Question the Value of Being Public

- Cost of being a small public company can be prohibitive due to increased regulatory requirements

- Lack of liquidity in small cap trading has many private companies concerned about going public

- Fear of activist investment and/or “short term-ism” in public markets
  - In 2016, # of targeted companies has increased 25% worldwide\(^1\)

\(^1\) Source: Activist Insight and Wall Street Journal, “When Activists Enter the Kitchen, the CFOs Feel the Heat,” June 12, 2017.
**Increased Cost of Regulation for Issuers**

- For smaller companies, the cost associated with being a public company represents a significant incremental annual expense
  - Sarbanes-Oxley, Dodd-Frank and other legislation have contributed to these costs
  - Additional costs include financial reporting, audit-related fees, investor relations, etc.

- As a result, smaller companies may choose to:
  - Stay private and/or seek a buyer
  - Delay an IPO until its business has matured to a point where it can absorb public company costs

**Example: Cowen Inc. (COWN)**

- Market capitalization: $480 million
- Public company costs: $4.4 million (estimated)

<table>
<thead>
<tr>
<th>Breakdown of Cowen’s Public Company Costs</th>
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<tbody>
<tr>
<td>$1,160,000</td>
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<tr>
<td>$1,000,000</td>
</tr>
<tr>
<td>$745,000</td>
</tr>
<tr>
<td>$250,000</td>
</tr>
<tr>
<td>$500,000</td>
</tr>
<tr>
<td>$300,000</td>
</tr>
<tr>
<td>$150,000</td>
</tr>
<tr>
<td>$150,000</td>
</tr>
<tr>
<td>$120,000</td>
</tr>
<tr>
<td>$50,000</td>
</tr>
<tr>
<td><strong>$4,425,000</strong></td>
</tr>
</tbody>
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Lack of Liquidity in Small Cap Trading Affects All Market Participants

- Reduced trading spreads have negatively impacted liquidity in small cap stocks
- Reduced interest in small caps may be from lack of research coverage
- Investors worried about inability to trade in/out of a thinly traded stock
- Issuers worry about being “orphaned” as a small cap

**Example: Calculation # of trading days to achieve target position**
- Market cap: $750 million
- Average daily trading volume (ADTV): $500,000
- Target position: 1% ($7.5 million)
- # of trading days: $7.5 million / ($500,000 x 15%) = 100 trading days\(^1\)

> For multi-billion dollar investment funds, given the amount of time to establish a position in a small cap stock and the size of the investment relative to the overall fund size, small cap issuers have greater difficulty in attracting institutional interest

<table>
<thead>
<tr>
<th>US Equities Ownership &amp; Trading Characteristics</th>
<th>Sub $750 Mkt Cap</th>
<th>Above $750 Mkt Cap</th>
</tr>
</thead>
<tbody>
<tr>
<td>Institutional Ownership</td>
<td>26.6%</td>
<td>73.4%</td>
</tr>
<tr>
<td>Retail Ownership</td>
<td>73.4</td>
<td>26.6</td>
</tr>
<tr>
<td>Research Analysts</td>
<td>1.0</td>
<td>12.0</td>
</tr>
<tr>
<td>30D ADTV (mm shares)</td>
<td>0.1</td>
<td>0.7</td>
</tr>
<tr>
<td>30D ADTV ($mm)</td>
<td><strong>0.5</strong></td>
<td>26.9</td>
</tr>
</tbody>
</table>

Source: Capital IQ as of June 9, 2017
\(^1\) For illustrative purposes, we assumed that an institutional investor will target to accumulate 15% of the stock’s daily volume on any given day
Recommendations to Improve Small Cap Ecosystem Because One Size Does Not Fit All

- **Capital providers**
  - Consider relaxing certain rules and compliance costs associated with running small funds in order to foster new fund formation
  - Put forth specific anti-MiFID II guidance to reduce the additional onerous compliance costs to investment managers
  - Continue to evaluate solutions that make market structure more conducive for small caps, such as extending the Tick Size Pilot Program

- **Investment banks**
  - Clarify regulatory and practical limitations of the JOBS Act:
    - Provide a mechanism that allows investment banking and research analysts to jointly attend pitch meetings without the current restrictions on this matter
    - Provide safe harbor from liability on pre-IPO research (absent fraud)
    - Clarify Reg M as it relates to EGCs and pre-IPO research

- **Issuers**
  - Reduce annual Sarbanes-Oxley compliance to every third year for all EGCs
  - Allow issuers to pick a limited number of venues (no more than three) where their stocks can trade or only allow small caps to trade on their listing exchange

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1 In October 2016, the Tick Size Pilot Program was implemented by FINRA and the National Securities Exchanges to determine the impact of wider bid/offer spreads for smaller cap stocks
2 Under Rule 101 of Reg M, the publication of a research report on an EGC may be prohibited during the restricted period, which generally begins 5 business days prior to the pricing date and ends upon completion of the distribution