NAVIGATING THE IPO MARKET WITH IPOX® IPO INDEXES

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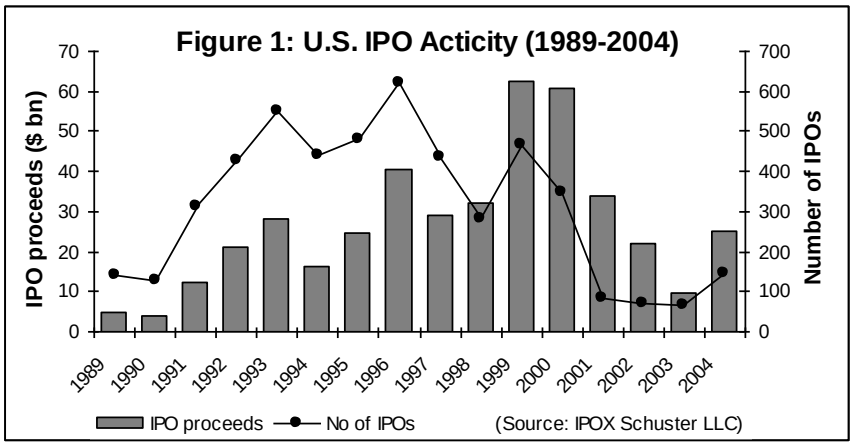
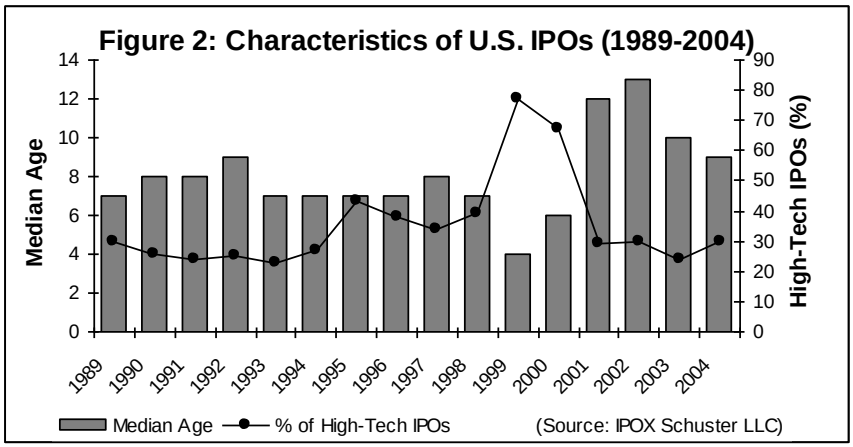
The IPOX IPO Indexes Rational

Global issuing activity in Initial Public Offerings (IPOs) has picked up, associated with a large increase in filings of well-branded U.S. companies in a broad range of industries. This is being driving by the favorable performance of recently issued IPOs and fundamental shifts in the profile of U.S. IPO companies following Sarbanes-Oxley, safeguarding higher quality listing standards and severe regulatory scrutiny towards IPO companies. As a result, a large number of older and more mature companies have been going public (Figure 1 and 2).



Through the range of the IPOX IPO Indexes, the first series of "investable" IPO Initial Public Offerings Index Products capturing the large universe of U.S. IPOs (IPOX Composite Index) and the respective size indexes (IPOX-100 and IPOX-30 Indexes), market participants have now an opportunity to track the long-run aftermarket performance of the U.S. IPO sector more accurately and comprehensively than with any other index group. IPOs are now becoming – according to a recent press release by the Russell Group - part of the 'opportunity set' for investors[1].



The underlying rational behind the IPOX Indexes is the need to classify IPOs from the rest of the market because IPOs bare unique empirical return dynamics up to at least four

[1] "Russell Indexes to Add IPOs on a Quarterly Basis", Russell Group Press Release, August 31st 2004.

years after the 'going public' event. In other words, 'going public' has an impact on the fundamental development of a company far beyond the price fluctuations in the immediate aftermarket. IPOX Indexes accomplish the systematic indexing of the long-run aftermarket performance of the U.S. IPO sector, while – at the same time – preserving the benefits of diversification via "Average IPO Investing" or "IPO Indexation". Because of the dynamic nature of the profile of the average IPOX constituent – typically a true reflection of the growth and innovativeness of the U.S. economy and Equity Capital Markets Trends – IPOX Indexes do not make a defined distinction between sector, size or style.

Why are IPOs unique? The academic perspective

A large body of academic literature has focused on the IPO sector, identifying a number of empirical patterns unique to IPOs. One such pattern concerns the existence of abnormal initial returns, whereby the first market price in on average significantly higher than the offering price. Ritter and Welch (2002) find an average first-day return of 18.8 percent of 6,240 U.S. IPOs between 1980 and 2001. They focus on conflict of interests within the investment banking industry which potentially influences IPO initial returns and the dynamics in aftermarket trading. Another pattern associated with IPOs relates to the observation of significant, recurrent, and to some extent predictable variations in IPO issuing activity over time. Ritter (1984) studies initial returns for U.S. IPOs and finds highly significant autocorrelation in monthly average initial returns and IPO volume. Lowry and Schwert (2002) confirm a significantly positive relation between initial returns and future IPO volume and note … "increased numbers of companies go public after observing that IPOs are underpriced by the greatest amount."

Most of the empirical IPO studies concentrate on the IPO return dynamics in short- and long-run aftermarket trading. While the conventional view was that IPOs underperform in the long-run (Ritter (1991), it has become apparent that the performance results are sensitive to the time period chosen and the applied methodology (Gompers and Lerner (2001). This notion is underlined in Schuster (2003), who highlights large cross-sectional differences in the long-run performance of European IPOs and rejects the notion of long-run underperformance. A related facet in the IPO aftermarket performance debate addresses the relation between short- and long-run IPO returns. One of the first to document these dynamics was Stoll and Curley (1970) who found considerable benchmark adjusted IPO short-run overperformance while reporting significant long-run underperformance. Considerable short-run overperformance in U.S. IPOs is also reported in Ritter (1991). Miller (1977) explains these price dynamics within a semi-rational setting. The "divergence of opinion" about a new issue is greatest when the stock is issued because there is uncertainty about the success of new products or the profitability of a major business expansion. As a result, short-sale constraints can lead to upward biases in stock prices. As a company acquires an earnings history, the marginal investor's valuation will converge towards the mean valuation and IPOs will start to underperform. Duffie, Gârleanu and Pederson (2002) show that, if lendable securities are difficult to locate, then the price of an IPO security is expected to decline over time.

Teoh, Welch and Wong (1998) relate the analysis of IPO performance to earnings management. They find a negative relation between long-run IPO performance and the degree to which managers boost their earnings during the IPO year. Luo and Schuster (2003) show dramatic short-run overperformance of IPO companies in Germany which aggressively manage their earnings during the IPO year, underlying the notion that the returns of IPO companies during their first six month on the market are essentially driven by factors other than fundamentals.

A number of other institutional arrangements unique to IPOs can have an effect on prices. Lockup agreements, for example, prohibit insider sales before a pre-specified date. Since insiders often own a majority of the firm, the potential for an increase in the supply of tradable shares following lockup expiration can have a significant effect on the value of the stock (Bradley, Jordan, Roten and Yi (2001), Brav and Gompers (2002) and Field and Hanka (2001). Bradley, Jordan and Ritter (2002) also find abnormal returns in the days before the expiration of the "quiet period". Furthermore, Aggarwal (2000) finds that "pure" stabilization, in which an identified bid is posted, is never done, while aftermarket short-covering, which has no disclosure requirements, is the principal from of underwriter price support. Stabilization by short-covering can occur because the underwriter initially sells shares in excess of the original amount offered, which is then covered by exercising the overallottment option and/or by short covering in the aftermarket during 30 days after the offering.

IPOX Indexes: Index Methodology and Economic Significance

Table 1: IPOX Indexes Summary		
IPOX Composite	**IPOX-100**	**IPOX-30**
Base Index	Associated Index	Associated Index
Captures the broad universe of U.S. IPOs trading within four years of 'going public'.	Captures the Top-100 IPOs ranked by market cap in the IPOX Composite Index	Captures the Top-30 IPOs ranked by market cap in the IPOX Composite Index
Index Membership: If size, free float and initial offering screens are met. REIT's, closed-end fund, Income Deposit Securities, ADRs and investment companies are excluded.	Index Membership: If large enough at the IPO date, if company reaches Top-100 market cap in the IPOX Composite due to stock price appreciation.	Index Membership: If large enough at the IPO date, if company reaches Top-30 market cap in the IPOX Composite due to stock price appreciation.
Exclusion: Automatic when 1000 trading days in the index and/or corporate action.	Exclusion: Automatic when 1000 trading days in the index and/or corporate action. If company falls below Top-100 index constituent market-cap threshold at the quarterly announcement date.	Exclusion: Automatic when 1000 trading days in the index and/or corporate action. If company falls below Top-30 index constituent market-cap threshold at the quarterly announcement date.
Market Cap-Weighted	Modified Market Cap-Weighted	Modified Market Cap-Weighted
No max. weight capping	Max. weight capped at 10%	Max. weight capped at 10%
Dynamic reconstitution	Quarterly reconstitution	Quarterly reconstitution
No fixed number of index constituents.	Number of index constituents fixed at 100.	Number of index constituents fixed at 30.
Current Market Cap: $500bn	Current Market Cap: $410bn	Current Market Cap: $305bn
Trading Volume: 95% of US IPO trading volume, 7-15% of total U.S. Trading Volume	50% of IPOX Composite Trading Volume	35% of IPOX Composite Trading Volume
95% of total U.S. IPO market cap	85% of U.S. IPOX Composite market cap	50% of U.S. IPOX Composite market cap
Percentage of index constituents trading on NYSE: 32	Percentage of Index constituents trading on NYSE: 75	Percentage of index constituents trading on NYSE: 93
Turnover (p.a.): 130%	Turnover (p.a.): 125%	Turnover (p.a.): 115%
Calculation Agent: S&P	Calculation Agent: S&P	Calculation Agent: S&P
Base Date: January 03 1989, Price and Total Return Indexes	Base Date: January 03 1989, Price and Total Return Indexes	Base Date: January 03 1989, Price and Total Return Indexes

Information as of September 30th, 2004.

The IPOX Composite Index is a rules-based index and provides the basis for the IPOX-100 and IPOX-30 Indexes (Table 1). It is a value-weighted all-cap momentum index which measures the performance of IPOs in calendar time. The IPOX Composite Index is dynamically reconstituted whereby IPOs enter at their seventh trading day after 'going public' and automatically exit after 1000 trading days or four years on the stock market. Because IPO activity is fluctuating over time, the number of securities in the IPOX Composite Index does fluctuate accordingly. The IPOX Composite Index includes constituents from a broad mix of industries, including large, mature IPO companies, fast-growing and successful IPOs as well as IPOs underperforming the market. As of September 30th 2004, the index pooled around $480bn worth of U.S. stock market capitalization and between 7-15 percent of total daily trading volume on the U.S. exchanges with s total market capitalization range of approximately $4ml to $54bn. Only U.S. domiciled companies which meet minimum qualitative entrance requirements based on size, adjusted float and initial pricing trading on NYSE, NASDAQ or AMEX are eligible for index membership.

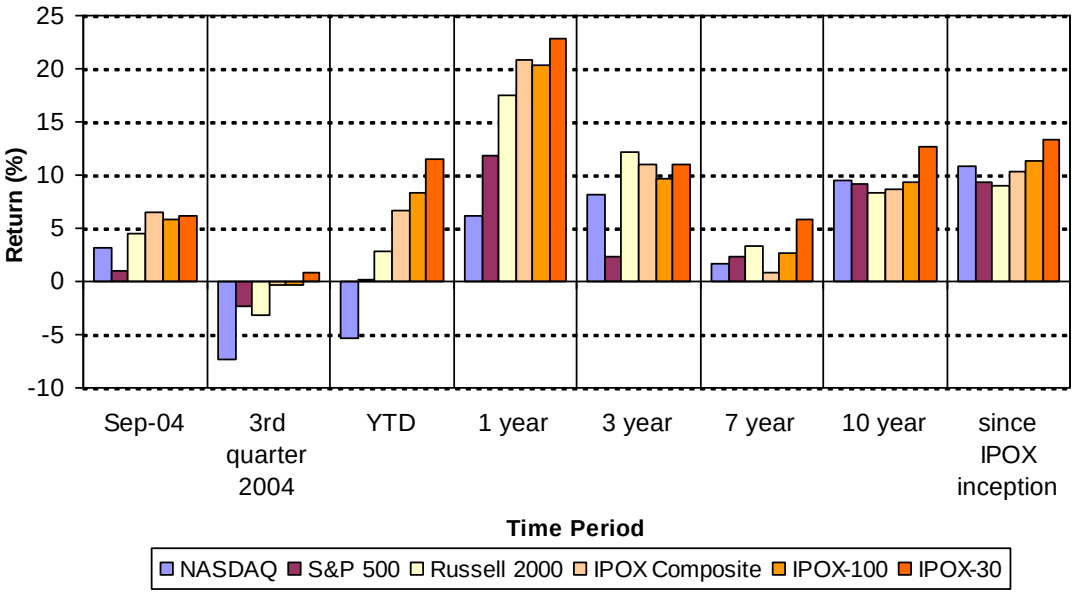
The IPOX-100 and IPOX-30 measure the performance of the Top 100 and Top 30 – representing around 85% and 50% of total market capitalization respectively – in the IPOX Composite Index. The IPOX-100 and IPOX-30 typically include the largest, most liquid and best performing IPOs in the IPOX-Composite Index. With its fixed number of constituent stocks, the IPOX-100 Index currently pools around $381bn while the IPOX-30 currently pools around $289bn worth of U.S. stock market capitalization. Unlike the IPOX-Composite Index, the IPOX-100 and IPOX-30 are reconstituted quarterly to reflect changes in stock market values of IPOX Composite Index Constituents and IPO activity during the previous quarter. In order to maintain diversification rules, the IPOX-100 and IPOX-30 apply a modified capitalization rule, whereby the influence of the larges index constituents in the IPOX-100 and IPOX-30 Index is capped at ten percent at the quarterly reconstitution event.

IPOX Indexes Analytics and Historical Performance

The performance of the IPOX Indexes is an important factor when determining the effectiveness of an index as a basis for an allocation and diversification decision. The favorable historical performance comparison clearly underlines the benefits of "Average IPO investing" using the IPOX index methodology (Figure 3). More specifically, the findings indicate the benefits of a systematic exposure into the IPOX-100 and IPOX-30 relative to the major US equity indexes.

More fundamentally, the decreasing difference in performance between the IPOX Composite and the IPOX-100 and IPOX-30 over the past years underline the increasingly favorable performance of the average IPOX Composite constituent, a likely outcome from the increased regulatory scrutiny towards IPOs during the past few years.

Figure 3: IPOX-Indexes Comparative Performance Chart



Source: Bloomberg Analytics

The analysis of one-year correlation coefficients (Table 2) clearly indicates the distinctive character and dynamics of the IPOX Indexes. Historically, IPO activity has been closely associated with the high-risk, high-return profile of companies in NASDAQ. The decrease in dominance of high-tech IPOs indicated by an insignificant correlation of the IPOX-30 Index against the NASDAQ Composite index during the past twelve months is setting this IPOX Composite sub-set clearly apart from the rest of the index universe. This also underlines the impact of fundamental changes associated with Sarbanes-Oxley affecting the profile of the average IPOX constituent.

Table 2: IPOX Indexes – Comparative Correlation Matrix (one-year)

	IPXC	IPXO	IPXT	INDU	SPX	RTY	CCMP	NDX
IPOX Comp (IPXC)		0.973	0.887	0.745	0.925	0.917	0.491	0.575
IPOX-100 (IPXO)			0.968	0.657	0.879	0.821	0.306	0.425
IPOX-30 (IPXT)				0.497	0.761	0.662	0.074[a]	0.221
Dow Jones (INDU)					0.923	0.855	0.723	0.746
S&P 500 (SPX)						0.925	0.606	0.681
Russel 2000 (RTY)							0.756	0.793
NASDAQ Comp (CCMP)								0.965
NASDAQ-100 (NDX)								

[a] denotes a statistical insignificant correlation based on a simple t-test. *Source: Bloomberg Analytics*

IPOX Indexes: Designed for various market participants

The IPOX Indexes are all-cap momentum Indexes which provide an alternative way to make sector, size and style decisions in equities. The IPOX-100 and IPOX-30 pool the largest and outperforming U.S. IPOs in the IPOX Composite Index into a liquid, separately tradable equity sector with unique empirical features and favorable historical performance against the major equity indexes and provide average, rather than median, exposure to the long-run aftermarket performance of IPOs. The underlying empirical features in IPOs make products benchmarked against the IPOX Indexes interesting for a

number of market participants with varying investment horizons, such as active index managers, index spreaders, basket traders or the retail buy-and-hold return community which seeks early exposure into the U.S. IPO market, typically a true reflection of the trends in Equity Capital Markets activity and the growth and innovativeness of the U.S. economy.

The IPOX IPO Indexes were created by IPOX Schuster LLC, a Chicago-based firm specializing in Financial Products Design related to IPOs. The IPOX Indexes are calculated and partially maintained by Standard & Poor's. With a Price and Total Return history going back to January 1989, the IPOX Indexes are available in real-time via the major data vendors. IPOX® (patent pending).

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