COGENT PARTNERS

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A Private Equity Secondary Market Model

FORECASTS MARKET TRENDS

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Executive Summary

Perhaps no segment of the private equity market has undergone as much change in the past five years as the secondary market. The change is evident in the market growth, which has occurred at an annualized rate of 33% from 2001 through 2005. But more than simple growth, the participants in the markets, the motivations for the transactions, and the expectations in pricing have undergone a marked change. The secondary market's transition from an option of last resort for distressed sellers, to an attractive portfolio optimization tool for long-term private equity investors, is widely recognized. Similarly, the nature and amount of buyside capital seeking secondary dealflow has changed significantly. Where the buyers universe was once a handful of modestly sized dedicated secondary funds, the number and size of secondary funds has exploded, while leading institutional investors and funds of funds have also dedicated resources, both financial and human, to actively pursuing buying opportunities in the secondary market. Indeed, with the growth of participants on the buyside from dedicated secondary funds, fund of funds, and direct institutional investors, combined with the increased use of the market by long term investors on the sell-side, one quickly realizes that a very significant portion of investors in the asset class are at least indirectly impacted by the secondary market environment.

An additional transition has taken place in the way transactions are conducted. Where the secondary market once consisted exclusively of privately negotiated transactions between sellers and purchasers, the majority of transactions now involve intermediaries. A qualified sell-side advisory firm provides pricing insight, market knowledge, and negotiations assistance to sellers, helping to level the playing field between the purchasers who continually traffic in the secondaries market and the sellers who do so much less frequently. These developments – increased use of sell-side advisors, increased competition, and increased capital eager to access attractive secondary dealflow – have had dramatic effects on current pricing levels and volume in the secondary market. These trends also have significant implications for the future of the secondaries market.

However, most prognostications on the future of the secondary market are done without data, by parties that – though admittedly knowledgeable – have a vested interest in the private equity community believing a certain trajectory is probable. While acknowledging that Cogent Partners' findings could be subject to the same criticism, we resolved to use actual data to produce more concrete answers to a few very important questions:

1. Historically, what drives secondary market volume?
2. Has the secondary market changed? And, does the data suggest a systematic increase in secondary market turnover for private equity funds?
3. Will pricing remain strong? And, what do the levels of demand and natural level of supply suggest for pricing?

For this data-driven approach, we developed a simple three-factor model of secondary market volume. The factors for the model are: i) the private equity secondary base, a function of private equity commitments three to seven years seasoned, ii) private equity returns, the weighted returns of the private equity market in the previous year, and iii) the existence of sell side intermediary service.

The model is highly predictive, and it provides interesting insights into the secondary market, as well as a view into its near-term growth. The model demonstrates the strong correlation between capital commitments and secondary market volume, with an average of 2.5% of commitments eventually transacting on the secondary market. A positive relationship also exists between annual private equity returns and the secondary transaction volume for the next year. Each percentage point increase in private equity returns translates into an incremental $2.3B in secondary volume. Similarly, the data supports the industry's general consensus that the market has undergone a real change. Since 2003, a demand shift has increased the turnover rate for private equity funds, resulting in an incremental $2.2B in transactions each year.

Finally, the model predicts that secondary volume will decline over the next two years, returning to the current levels in 2009 and growing slightly in 2010. This projected decline in secondary volume, based on the historic drivers of secondary volume, comes in the face of record amounts of capital being raised to purchase secondary interests. The relative imbalance between supply and demand should keep pricing strong in the coming year.

Cogent Secondary Market Model

On empirical drivers, evidence of change, and forecasting market growth

It's clear that the investing community's interest in the secondary private equity market is at an all-time high. Serving as evidence, every private equity conference features a discussion on the secondary market *de rigueur*, many industry publications are covering secondary transactions with a newfound zeal, and a growing number of ever-larger dedicated secondary funds are actively seeking capital from institutional investors.

But despite the secondary market's surge in popularity, it remains very much a mystery for many institutional investors. Not only has there been a lack of information regarding pricing in recent secondary transactions (a problem addressed in Cogent's semi-annual Secondary Pricing Analysis), there has also been a dearth of data-driven analysis on the secondary market's evolution.

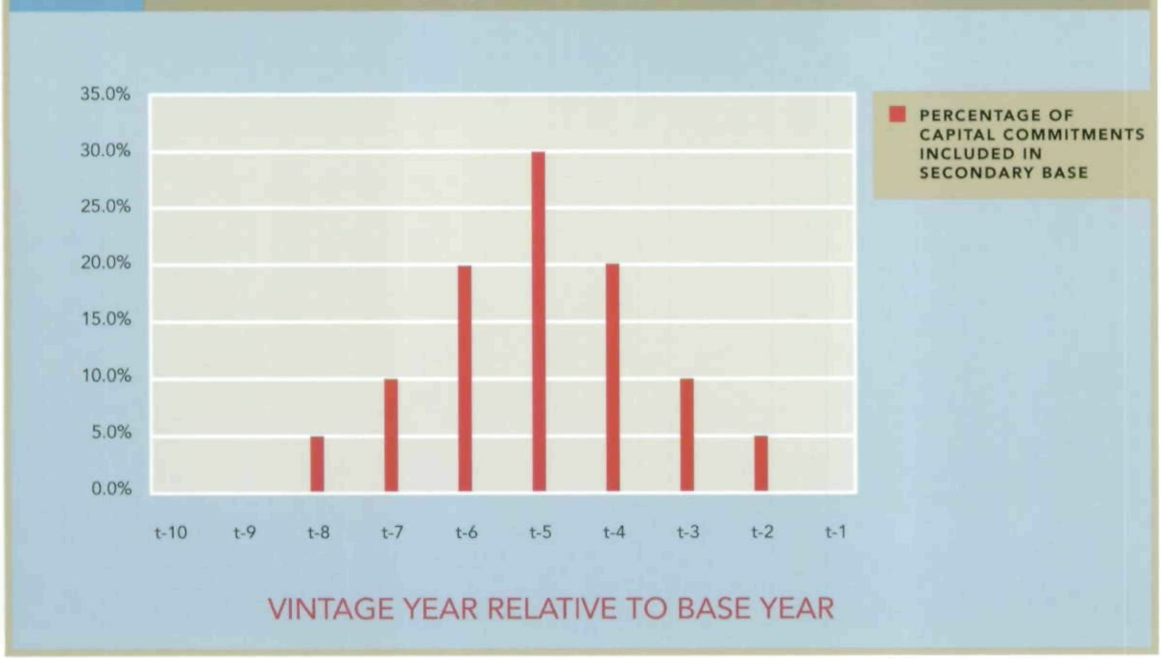
Here, we seek to address the latter issue, using a proprietary model to provide Cogent Partners' view of key market drivers, as well as future turnover rates and pricing levels in the secondary market.

A Secondary Market Model

An oft-cited rule of thumb for the secondary market is that two to three percent of commitments will eventually transact on the secondary market. Unfortunately, the use of the word "eventually" is consistent with the economists' trick of providing either direction or timing, but never both. In Cogent Partners' analysis of the market, our goal was to provide better near-term guidance, and construct a model to project market volume for any year using data accessible prior to the year in question.

Starting from the logic of the rule of thumb, we wanted a measure of the commitments available to transact on the secondary market. The first step was to determine what commitments were relevant to a given year's secondary volume. We felt the most relevant commitments were to funds raised in the "sweet spot" for secondary transactions, funds between three and seven years old. This decision was based on the reality that less mature funds are less likely to transact, and when extremely mature funds do transact, distributions have reduced the actual dollar amount of the transaction. Hence, we developed a *Secondary Base* for any year as a simple function of the commitment levels made between three and seven years earlier. Figure 1 shows the percentage of each vintage's commitments that contribute to any year's Secondary Base. (Alternatively, one can think of the distribution as, for any given vintage's total level of secondary transactions that will occur, how much of the total amount of secondary transactions will occur in each year of a fund's existence.)

FIG. 1 Private Equity Secondary Base Distribution



We next wanted to capture cyclicality in the secondary market, to determine to what extent volume followed (or ran counter to) the returns for the asset class overall. Thus the second factor in the model is the private equity return for the previous year. As the tracked secondary volume is a global volume, we constructed an appropriate analog for global returns. For the sake of consistency, the US private equity return and European private equity returns were weighted by their relative contribution to the private equity secondary base. To test the return's effect on market volume, we included the lagged returns for the previous year in the model. Lagged performance seemed appropriate, as investors' ability to assess performance is delayed, and their ability to transact in the secondary market is not instantaneous. Hence, if returns are a factor in secondary market volume, the relevant performance number affecting a given year's volume is the return of the previous year.

Finally, we wanted to test for a change in the marketplace. We believe that the market has undergone a dramatic shift since 2003, driven by the emergence of sell-side advisory services being available to market participants. More specifically, we hypothesize that the emergence of confidential price discovery for potential sellers, the ability for sellers to transact at negotiated pricing with minimal time commitment, and an increase in the number of buyers facilitated by widely marketed transactions, have led to a change in the secondary market. We included a dummy variable in the analysis to test if the data agreed with the hypothesis.

A Reliable Model

With those simple variables and a straightforward logical model, we performed a regression of each year's reported secondary market volume (SV) against a.) the private equity secondary base for that year (SB), b.) the weighted private equity returns for the previous year (PER), and c.) the test variable for the presence of sell-side advisory services (AD).

$$SV_t = \alpha + \beta_1 SB_t + \beta_2 PER_{t-1} + \beta_3 AD_t$$

A multiple linear regression was performed on the complete fourteen year data set available on the secondary market. The results were extremely compelling.

High Explanatory Power

Regression Results
r^2 = .965
adjusted r^2 = .955
Regression F-Test = 93.1

Variable Results

Variable	Coefficient	t-test
α	-193.7	—
β_1	.0252	5.12
β_2	2287.6	3.21
β_3	2049.4	2.97

The three factors in the model together explained 96.5% of the variation in secondary market volume. Further, the statistical test of the significance of independent variables, the F-Test, has a value of 93.13. This indicates the model is significant far in excess of the 1% level, or there is less than a 1.3E-5% probability that the observed correlation between the dependent variable and the independent variables occurred by chance.

The statistical analysis concurs, as conventional wisdom has held, that secondary market volume is strongly correlated to the pool of commitments represented by the secondary base. The model indicates that, other things held constant, 2.5% of the private equity secondary base will transact each year. (Once again, stated differently, a baseline of 2.5% of each vintage year's commitment will transact in the secondary market, in years three through seven). Further, in the statistical test for significance of the coefficient, the Student's t-test value of 5.12 suggests a high degree of certainty that the correlation is not by chance. Indeed, despite a relatively small number of observations (14), one can say with 95% accuracy that the correct coefficient is between 2.12% and 3.37%.

In the regression analysis, the resulting effects of private equity returns on secondary market volumes may run counter to expectations. Some may have postulated that investors are more apt to conduct a secondary sale following a market downturn, at a time when they're revisiting investment decisions and choosing to exit poor-performing assets. Instead, the regression produced a positive correlation between private equity returns and secondary market volume, indicating secondary market volume increases in years following strong market performance. This could speak to the importance of good pricing in driving secondary volume. When the market is underperforming, buyers are less certain of the reported valuations and more skeptical of general partner guidance received on expected portfolio performance. This leads to higher underwriting rates. These higher rates, combined with the lagged decline in values, produce larger accounting losses for sellers.

Periods of good performance, however, have increased visibility into future exits for potential buyers, and increased faith in the guidance from general partners. These factors, combined with the lag in reporting the value enhancements in a portfolio, are more likely to produce accounting gains for a potential secondary transaction.

The regression provides statistically significant evidence that sellers' sensitivity to pricing, and desire to transact when the market is strong and accounting issues are minimized, outweighs the effect of negative markets leading to portfolio sales.

The last variable, intended to capture the impact of sell-side intermediaries, is also statistically significant. The regression strongly supports the hypothesis that a change in the market occurred in 2003 and has persisted through the present. This change in the market has resulted in an incremental two billion dollars a year in secondary deal flow, over and above the deal flow that the model predicted based on the other factors in the analysis. In percentage terms, instead of absolute dollar terms, this change in the market added an incremental 1.1-1.8% of the private equity secondary base, or an incredible 44-78% increase in the baseline secondary turnover rate.

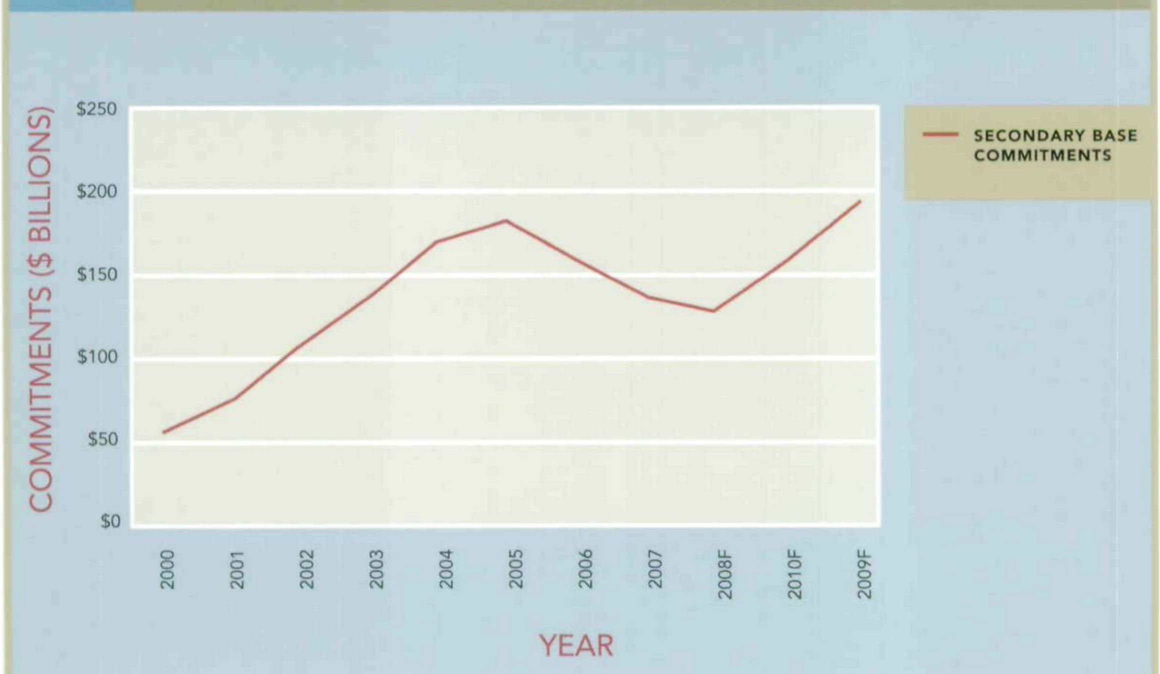
This change in market volume is concurrent with a significant change in the structure of the secondary market itself. The year 2003 marked the first year potential sellers had widespread access to the advice and expertise of sell-side advisory services. Intermediated transactions also allowed other market participants, potential buyers of secondaries without a dedicated deal sourcing staff, to participate in transactions based on the price they were willing to pay.

Secondary Deal Flow Outlook

The development of a simple model with a 96% explanatory power begets the question, "what does the model predict about the near future?" To estimate deal flow into the future, it is first necessary to determine, and project when necessary, the model's basic inputs: the secondary base, and private equity returns (we will assume that sell-side advisors – the third variable – remain a part of the market).

The first interesting outcome is the path of the secondary base. As shown in Figure 2, the private equity secondary base, the function of the commitments between two and eight years old, initially holds steady. As the fundraising nadir of the 2002-2003 vintage years works its way through the calculation, however, the secondary base will decline. Further projection requires some assumptions on the rate of fundraising the market will experience in the near future, which as a baseline we have projected at the five-year rolling average. Using this assumption, the secondary base regains its 2005 level in 2010.

FIG. 2 Private Equity Secondary Base



The last input is the return expectations for private equity for each year. Once again, as a base case, the ten-year private equity return average has been used to project the model.

Using the base case projections for capital raising and market returns, the model projects a decline in secondary market volume over the next three years (Figure 3). The decline is largely a result of the declining secondary base, resulting from the lean fundraising years of 2002-2003 working their way through the pipeline. In subsequent years, as the secondary base recovers, the model projects a return to the market volumes we have experienced of late.

Secondary Demand

Though the model predicts a dip and subsequent recovery in market volume, there are obviously participants who believe the market will grow significantly in the near term. Those different views, held by the dedicated secondary funds raising record amounts of capital, may indeed be self-fulfilling. Secondary general partners, and the institutional investors who invest with them, appear convinced that the market needs an increasing amount of capital on the buy side. Against the 2005 market size of $6.7B, $5.9B in dedicated secondary assets were raised. In 2006, Cogent is tracking an additional $18.5B in dedicated secondary capital that has closed or will likely be raised (Figure 4).

By historic measures, these secondary capital raises relative to the private equity market size are substantial. According to Venture Economics data, throughout the 1990s, for every dollar committed to a primary fund on average 1.3 cents were committed to a secondary fund. From 2000 through 2005 the average grew to 3.6 cents. For 2006, should the funds known to be raising capital complete their raises, while the primary fundraising year finishes as expected, that ratio will grow to a record 8.1 cents for every dollar, surpassing the record 7.6 percent ratio set in the lean fundraising year of 2003 (Figure 5).

But, unlike in the past, the capital available on the buy side of secondary transactions does not end here. Other market participants are increasing their commitment to the space. As we've detailed previously in Cogent's semi-annual Secondary Pricing Analysis, the amount of capital earmarked for secondaries has grown substantially, from increased allocations in fund of funds vehicles, to set-asides in sophisticated pensions' portfolios. While certainly helpful in the overall dynamics of the market, we historically have not counted these earmarks in the supply / demand equation, as they have been viewed as opportunistic. Our view on this capital has changed, however, as more and more of these market participants bring in teams dedicated to closing secondary deals. When resources are tasked with putting the capital to work in a certain strategy, the pressure to invest in that strategy increases dramatically.

FIG. 3 Secondary Transaction Volume

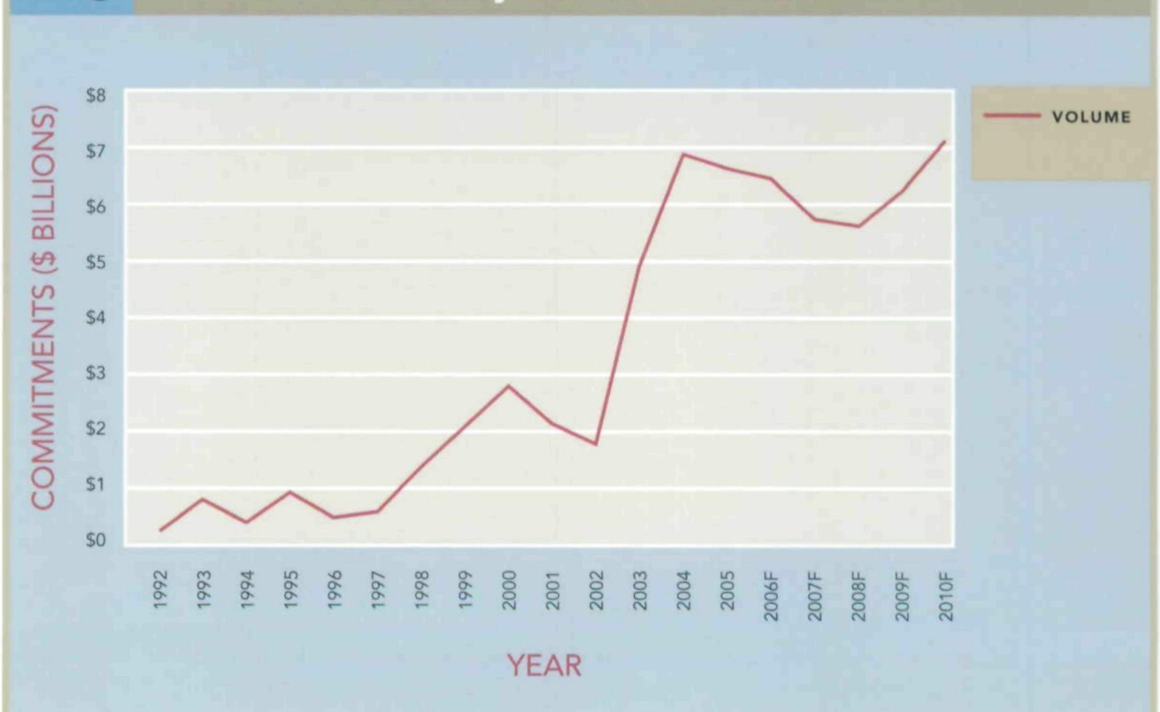
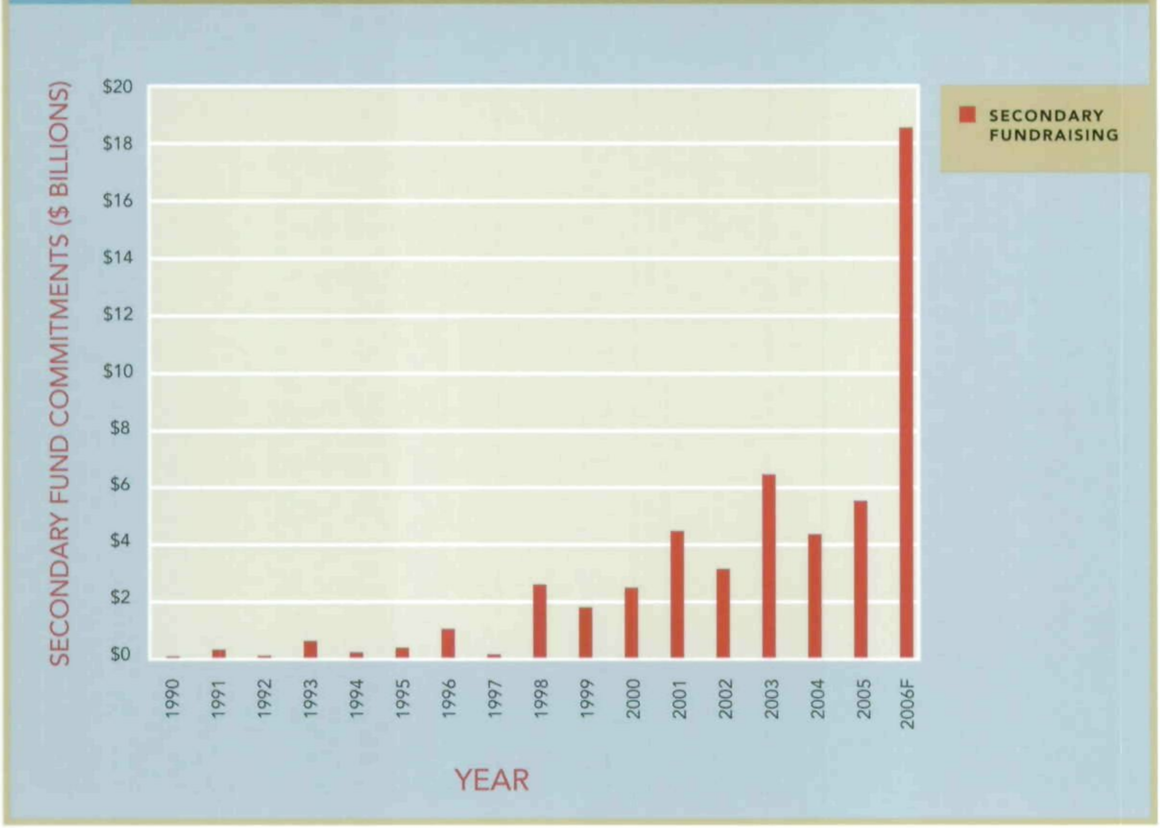


FIG. 4 Secondary Fundraising



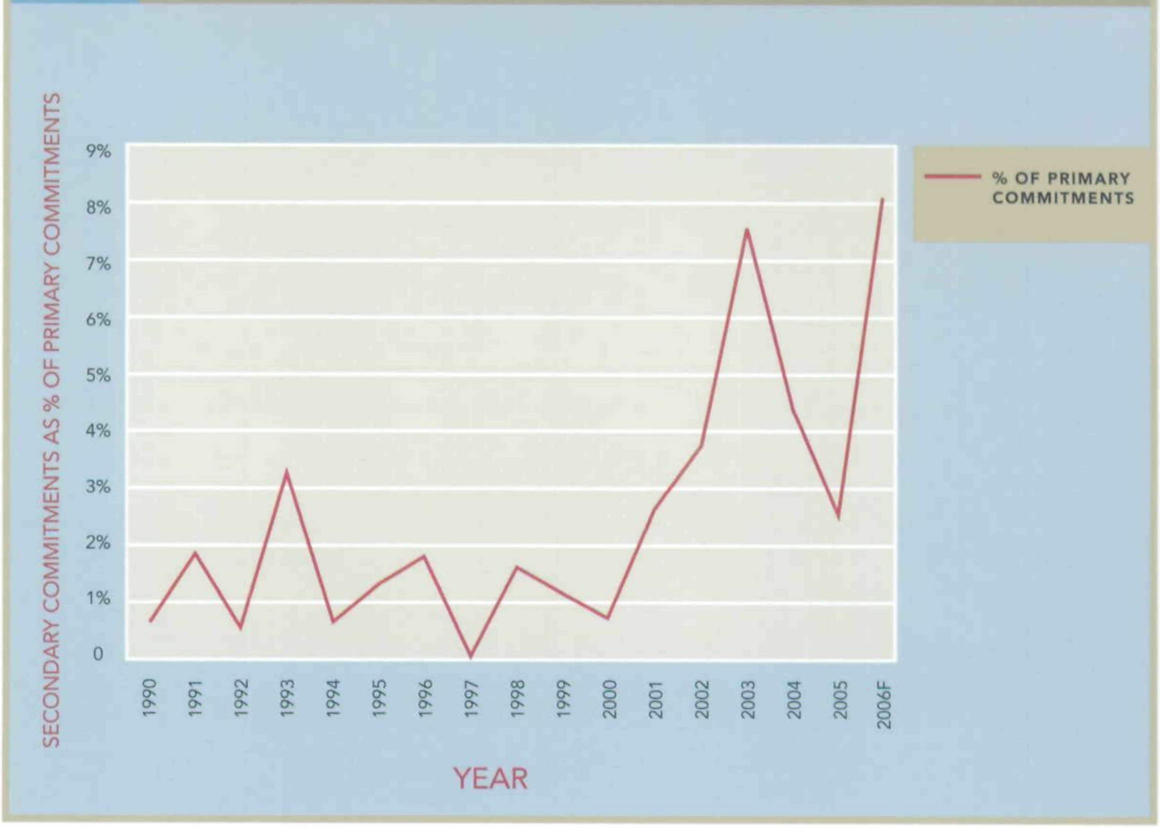
Pricing Implications

While the market model does not predict pricing levels, the prospect for sources of supply, levels of demand, and overall private equity performance leads to a strong near-term outlook for pricing. The sources of secondary transactions are price-sensitive institutions, accessing the market to manage their portfolios. Unlike occasions when the secondary market has been driven by sellers in need of liquidity, or financial institutions eager to transfer assets off the balance sheet, the current sellers have no pressing need to transact. To continue to attract these sellers to the market, pricing levels will need to remain strong.

At the same time, the amount of capital searching for transactions is likely to accommodate the continued strong pricing. The amount of capital being raised by dedicated funds dwarfs historic levels as a percentage of primary fund raises, and far exceeds the modeled levels of secondary turnover. In addition, other market participants, who didn't exist as a group six years ago, are increasingly forming dedicated teams with earmarked capital searching for buying opportunities.

Finally, in the near term, the private equity market itself is aiding the pricing levels. Buoyed by good performance in prior years, buyers can make more aggressive bids with near-term liquidity guidance from general partners.

FIG. 5 Secondary Commitments as % of Primary Commitments



Conclusion

A few simple factors have explained volume in the secondary market. Historically, volume has been driven by the amount of funds in the sweet spot for secondary transactions, those funds between three and seven years old, and the private equity returns of the previous year.

In recent years there has been a shift in the secondary market, leading to a substantial increase in the turnover rate for secondary transactions. This shift has likely been brought about by the emergence of sell-side advisors, which have allowed non-motivated sellers to access pricing information and transact in the secondary market with little distraction to their team. Similarly, the de-emphasis on the need to build a sourcing capability has allowed other capital to enter the market seeking buying opportunities.

Looking forward, the model suggests flat growth in secondary volume over the next five years. However, an unprecedented amount of capital continues to be raised to purchase secondary interests. This apparent growth in the demand for secondary transactions without any apparent growth in the natural supply of secondary portfolios should provide continued strong pricing levels into the near future.

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