

Why GPs should reinvest

CAPITAL RECYCLING

Andrew Conner makes the case for recycling capital as a means to create more efficient private equity portfolios.

INTRODUCTION

In the past decade, the phenomenon of the “evergreen fund” has nearly disappeared from the private markets, replaced by series of funds with discrete amounts of investable capital. This development was championed by limited partners, who saw it as a way to regain a measure of control over the capital they have committed to the private equity asset class. Consequently, in today’s market, the concept of “recycling capital”, whereby general partners are allowed to reinvest some limited proportion of cash realisations into existing or new company investments, lacks broad appeal among the investor community.

In this research brief, we analyse the economic implications of recycling capital within private equity partnerships. We measure the consequences for expected returns and cash realisations, as well as carried interest paid, associated with various levels of recycled capital. We examine the effects of recycling on the average holding period of capital in a typical private equity fund. Finally, we observe that recy-

cling a limited amount of capital may benefit limited partners by lowering the effective fees payable, by better aligning the interests of the GPs with those of the LPs, and by creating a more efficient risk/return trade-off for limited partners.

DATASET

In this brief, we utilised our firm’s proprietary terms and conditions model. We extended that model to simulate the recycling of different amounts of capital within the typical private equity partnership. The terms and conditions model was set up such that the expected fund returns and cross-sectional variance of modeled fund returns matched the historical characteristics of liquidated funds in the Venture Economics database.

METHODOLOGY

The terms and conditions model used in this paper is useful for measuring the economic value of selected sets of terms and conditions in private equity limited partnerships. Essentially the model projects a typical private equity fund over its lifespan, modeling its drawdowns, valuations, management fees, investments in portfolio companies, liquidation events, payments of carried interest and net distributions to limited partners. By employing stochastic portfolio company

returns, the model enables the user to determine the expected net cash distributions under a set of terms, providing weight to a wide array of potential return scenarios and sequences in addition to quantifying a straight-line expected case. (For a full description of the model and a detailed comparison of typical industry standard terms and conditions, see Conner [2005]. Except for the recycling of capital, all of the model runs in this report were done under Base Case terms as defined in that paper, which are meant to represent industry-standard partnership terms.

For this article, the model was extended to capture the effects of recycling capital. We added a new parameter to set the maximum proportion of committed capital the GPs may reinvest. Each time the model partnership realised gross cash proceeds from a portfolio company, that amount was reinvested into the remaining existing portfolio companies, provided the partnership had not yet exceeded its allowance of recyclable capital. Consequently, the payment of net distributions to LPs and carried interest to GPs was delayed. The invested-capital base for the hurdle rates used in the calculation of carry was not increased as a result of recycling capital.

Reinvested capital was then added (i.e. invested at cost) to each company valuation, and from that point forward subject to growth and distribution rates similar to traditional capital investments. We ran both deterministic simulations (based on the expected return being obtained each year) and stochastic simulations (based on expected portfolio company mean and standard deviation of returns set such that the fund return distribution under Base Case terms resembled the return distribution of funds in the Venture Economics database).

After creating a new Base Case scenario with a recycling allowance of 0 percent of committed capital (which, as expected, produced results identical to those of the original Base Case), we ran ten simulations, increasing the allowance by 10 percent of committed capital each time. We examined the expected net returns and average time it took to return capital to investors and pay carried interest to investment managers. We then ran stochastic simulations, making portfolio company returns a random variable, and observed the expected economic value of different levels of recycling as well as the cross-sectional standard deviation of modeled net fund returns, as a proxy for the risk associated with each set of terms and conditions.

RESULTS

After running the deterministic simulations in which the expected net return of 16.2 percent was realised each and every year, it was clear that recycling capital increases net returns to limited partners and

increases the length of time it takes to receive distributions and pay carried interest. This result confirms intuition; by reinvesting capital into the partnership rather than distributing it, the GPs defer payouts and allow dollars to compound in portfolio company investments longer, leading to greater expected total returns. Exhibit 1 summarises the results of the deterministic simulations for incremental levels of recycling from 0 percent to 100 percent of committed capital.

As a rule, net internal rate of return (IRR), total net distributions and carried interest all increase with the amount of committed capital GPs are permitted to recycle. The fourth and sixth columns of Exhibit 1 contain the average amount of time elapsed between the commencement of the partnership and the distributions to LPs and the payment of carried interest, respectively. These statistics were calculated as the sum of the years at which cash was paid multiplied by the proportion of total distributions (or carry) paid in each year.¹

Increasing the amount of capital available for reinvestment delayed the payment of distributions to LPs. In the Base Case the average timing of distributions was 8.2 years and under a 100 percent recycling limit it was 10 years, which is a meaningful increase. The payment of carried interest was similarly delayed. This deferral of realisations due to reinvestment is one reason recycling is associated with higher expected returns. Similar to a tax-deferred individual investment account, dollars allowed to compound longer before paying carry will generate greater amounts of expected wealth.

Stochastic simulations confirmed the conclusions drawn above. In order to study the effects of recycling capital in the presence of uncertainty, we modeled each gross portfolio company return in each period as a random variable. Gross returns were given a mean of 21.3 percent (the same as in the deterministic simulations above) and a standard deviation that set the cross-sectional standard deviation of net IRRs under Base Case terms equal the

EXHIBIT 1: SUMMARY OF DETERMINISTIC RESULTS UNDER VARIOUS LEVELS OF RECYCLED CAPITAL

	Net IRR	Total net distributions to LP (\$ millions)	Average timing of distributions (years)	Total carried interest to GP (\$ millions)	Average timing of carried interest (Years)
Base case, no recycling	16.2%	213.4	8.22	29.4	10.52
Recycle up to 10% of committed capital	16.4%	225.5	8.47	32.4	10.55
Recycle up to 20% of committed capital	16.5%	236.1	8.69	35.0	10.59
Recycle up to 30% of committed capital	16.6%	246.4	8.89	37.6	10.64
Recycle up to 40% of committed capital	16.7%	256.2	9.09	40.1	10.70
Recycle up to 50% of committed capital	16.8%	266.0	9.27	42.5	10.76
Recycle up to 60% of committed capital	16.9%	275.9	9.44	45.0	10.80
Recycle up to 70% of committed capital	16.9%	284.2	9.58	47.0	10.87
Recycle up to 80% of committed capital	17.0%	292.2	9.72	49.1	10.93
Recycle up to 90% of committed capital	17.1%	300.3	9.85	51.1	10.99
Recycle up to 100% of committed capital	17.1%	307.4	9.97	52.9	11.07

EXHIBIT 2: SUMMARY OF STOCHASTIC RESULTS UNDER VARIOUS LEVELS OF RECYCLED CAPITAL

	Expected net IRR	Expected distributions (\$ millions) to LPs	Expected carry paid (\$ millions) to GPs	Economic value of term (\$ millions)	IRR vs Base Case (basis points)	Standard deviation of IRRs	Standard deviation of distributions	Standard deviation of carry
Base case, no recycling	14.6%	311.1	53.9			15.7%	461.1	115.2
Recycle up to 10% of committed capital	15.2%	334.9	59.7	23.7	55	15.3%	504.6	126.1
Recycle up to 20% of committed capital	15.6%	356.1	65.0	45.0	100	14.9%	540.6	135.1
Recycle up to 30% of committed capital	16.0%	376.2	70.0	65.1	133	14.8%	572.5	143.1
Recycle up to 40% of committed capital	16.2%	395.4	74.7	84.3	159	14.9%	600.6	150.1
Recycle up to 50% of committed capital	16.4%	413.9	79.4	102.8	178	15.1%	627.1	156.8
Recycle up to 60% of committed capital	16.5%	431.4	83.8	120.3	186	15.6%	651.7	162.9
Recycle up to 70% of committed capital	16.5%	447.9	87.9	136.8	190	16.1%	674.7	168.6
Recycle up to 80% of committed capital	16.5%	463.4	91.7	152.3	190	16.7%	696.0	174.0
Recycle up to 90% of committed capital	16.5%	478.1	95.4	167.0	188	17.3%	716.0	179.0
Recycle up to 100% of committed capital	16.5%	492.1	98.9	181.0	183	17.9%	734.3	183.5

Source: Alignment Capital Group

In the presence of an LP clawback of carried interest, recycled capital actually has a more favourable risk/return trade-off to the LP than does newly invested capital. A higher proportion of losses of recycled capital will be absorbed by the GPs, in the form of forfeited carried interest.

cross-sectional standard deviation of historical net IRRs of the liquidated funds in the Venture Economics database. Under each level of recycled capital we simulated 10,000 funds, each with \$100 in committed capital and observed their characteristics, which are shown in Exhibit 2.

The expected economic value of recycling capital is substantial. Although the marginal benefits are diminishing, each additional 10 percent of capital recycled up to a 40 percent limit results in an expected \$20 million of additional net distributions for the limited partners and \$5 million of additional carry for the general partners. Within the context of the value of other terms and conditions, this places moderate levels of recycling capital at

an order of economic magnitude similar to raising or lowering the carried interest by ten points.

Perhaps equally interesting are the cross-sectional standard deviations of IRR, which we interpret as a measure of the relative risk taken under different sets of terms. The standard deviation of IRR, 15.7 percent in the Base Case, actually falls when capital is recycled to a minimum value of 14.8 percent when 30 percent of commitments are available for reinvestment.

This phenomenon occurs because, in the presence of an LP clawback of carried interest, recycled capital actually has a more favourable risk/return trade-off to the LP than does newly invested capital. A higher proportion of losses of recycled capital will be

absorbed by the GPs, in the form of forfeited carried interest. With new, i.e. non-recycled capital, losses are more likely to be born entirely by the LPs, as the GPs hold an option on profits in the form of carried interest as discussed by Rouvinez [2005]. In cases where GPs are recycling capital and already have received carry, the clawback neutralises this optionality by placing previous carry at risk for the GPs. Exhibit 3 summarises these exposures.

Higher expected net returns, coupled with the lower expected risk, combine to make a compelling argument in favor of allowing general partners to recycle capital. From an economic standpoint, there are potential benefits for both LPs and GPs.

Limited partners effectively reduce their reinvestment risk by transferring it to the general partners, postponing the time until they need to make a new investment decision (existing GPs hold capital longer before distributing it). LPs can expect higher total returns, also attributable to the longer holding period and the more favorable risk/return trade-off of recycled capital

EXHIBIT 3: LIMITED PARTNER/GENERAL PARTNER EXPOSURE MATRIX

Portfolio appreciates	Newly invested capital LP gains, GP gains	Recycled capital LP gains, GP gains
Portfolio depreciates	LP losses	LP losses, GP losses

Source: Alignment Capital Group

relative to newly invested capital. Additionally, the effective management fees payable, defined as total fees over the life of the partnership divided by total amount of capital invested, falls with higher amounts of capital recycling. In this analysis, the Base Case effective management fee was 17 percent, which fell to 13 percent for 30 percent recycled capital.

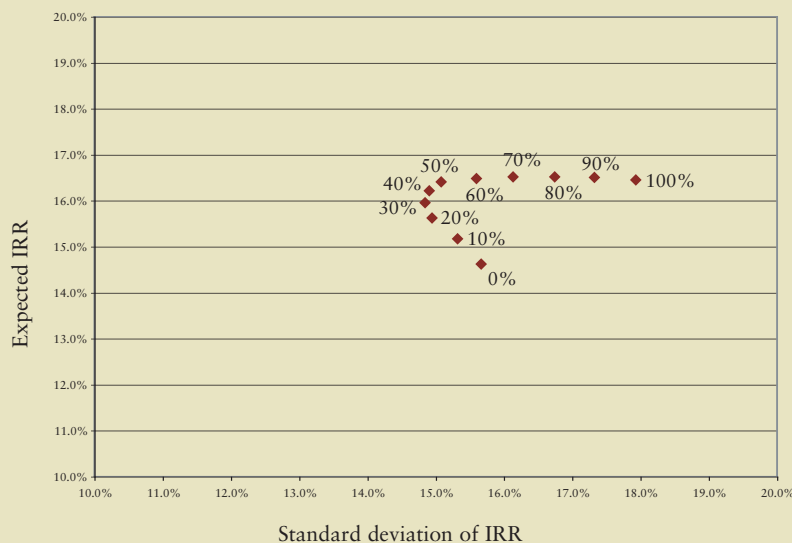
Conversely, relative to raising a new fund sooner, general partners receive less management fee income but have the opportunity to generate greater carried interest. Typically, capital is reinvested once the hurdle rate is cleared, resulting in a more pure 80/20 split of profit interests, which is attractive to GPs. Although not strictly an economic factor, recycling capital allows the general partners to continue to invest longer

before undertaking a disruptive and potentially unpleasant fundraising process for the subsequent fund.

From the perspective of portfolio efficiency, it is difficult to argue against recycling capital as a means of capitalising on the superior risk/return combinations available to the investor. Exhibit 4 illustrates portfolios with various levels of capital reinvestment in risk/return space.

Allowing GPs to recycle up to 30 percent of commitments results in a higher expected return with lower expected risk than under lower recycling limits. Beyond a limit of 30 percent, both expected return and risk increase, but above a 50 percent limit the marginal efficiency gains are less obvious and eventually disappear above a limit of 70 percent.

EXHIBIT 4: PORTFOLIOS WITH VARIOUS LEVELS OF CAPITAL RECYCLING IN RISK/RETURN SPACE



Source: Alignment Capital Group

CONCLUSION

In this research brief we study the economic effects of allowing the general partners of private equity funds to recycle a limited amount of capital into existing or new company investments. Our results show that recycling can enhance fund investments for limited partners from a number of perspectives. LPs can invest at a preferable risk/return combination with reinvested capital because the incentive structure typically in force at that point better aligns the interests of the GPs with their own.

Additionally, the longer holding periods associated with recycling capital lead to higher expected total returns for LPs and higher expected carried interest payments for GPs. Since typically management fees are charged only on committed capital, recycling has the effect of reducing effective management fees payable. In any case, portfolios with the ability to recycle 30 to 50 percent of committed capital appear to dominate portfolios without the ability to recycle from both a return and risk standpoint. ■

1. For distributions, where $DIST_t$ equals the amount distributed at time t :

$$\sum_{t=1}^T \frac{DIST_t}{\sum_{j=1}^T DIST_j} \times t$$

REFERENCES

Conner, Andrew. The Economic Value of Terms and Conditions: What is Worth Fighting For? *The Journal of Private Equity*, Summer 2005, p. 64.

Rouvinez, Christophe. The Value of the Carry. *Private Equity International*, July/August 2005, p. 55.

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