

News from the Front Line

2018

Shining a new light: European venture capital

The previous issue of FrontLine focused on the impact of foreign exchange on private equity performance. In light of this, this issue will revisit the performance of European venture capital funds. As illustrated by Table 1, the pooled average performance of these funds usually compares unfavourably with that of their US counterparts. According to eFront Pevara's data, US venture capital records a pooled multiple on invested capital¹ that is 22.5% higher than its European peer group. As for internal rates of returns, they generated on a pooled average basis 940 basis points more than their European counterparts. Not surprisingly, some fund investors have simply concluded that they should disregard European venture capital when setting their asset allocation.

Some fund investors might have concluded too quickly that they should disregard European venture capital

Table 1 – Compared performance of US and Western European venture capital funds in USD

Region	Pooled DPI	Pooled TVPI	Pooled IRR	Upper 25% TVPI	Lower 25% TVPI	Bottom 5% TVPI
USA	1.15x	1.58x	14.35%	2.07x	0.87x	0.37x
West. Europe	0.78x	1.29x	4.95%	1.42x	0.72x	0.32x

Source: eFront PEVARA, as of Q3, 2017.

However, this conclusion might have been drawn too quickly. Performances in Table 1 are in US dollars (USD), which is potentially misleading when analysing funds operating in the Eurozone. Reporting data in USD introduces a bias affecting the comparison of US and European venture capital. Thanks to the flexibility and the high quality of eFront Pevara's data, this issue of FrontLine reassesses the performance of European venture capital, with particular reference to sampling and foreign exchange biases.

A first approach

By switching the currency of reference from the USD to euros, the performance of European venture capital improves slightly (Table 2). The pooled TVPI increases by 2.3% and the pooled IRR by 17 basis points. As a matter of comparison, US venture capital records a slight decrease in pooled TVPI and a marginal increase of pooled IRR. Converting their performance to euros affects the dispersion of returns of US and European funds similarly. The immediate conclusion would be that the EUR/USD conversion has only a mild impact on the overall assessment of European venture capital.

Table 2 – Compared performance of US and Western European venture capital funds in EUR

Region	Pooled DPI	Pooled TVPI	Pooled IRR	Upper 25% TVPI	Lower 25% TVPI	Bottom 5% TVPI
USA	1.15x	1.57x	14.58%	2.18x	0.81x	0.32x
West. Europe	0.80x	1.32x	5.12%	1.45x	0.67x	0.27x

Source: eFront PEVARA, as of Q3, 2017.

¹ Total Value to Paid-In, or TVPI.

This seems to be confirmed by time-zero internal rate of returns², which effectively give an equal weight to all the cash flow streams of funds (Table 3). In euros, the performance of European venture capital is on a pooled average basis more attractive than in dollar terms, but the dispersion of performance is also wider. Therefore, for European venture capital, the impact of using US dollars as a currency of reference has been to lower the risk-return profile of these funds.

Within the sample, some vintage years are unaffected: 2000 is the lowest performer and 2010 the highest, whether in dollars or euros (Fig. 1 and 2). Here again, the dispersion of performance is higher in euros. However, some vintage years are significantly affected by the shift from dollars to euros, either negatively, such as 1999 and 2015; or positively, such as 2005 and 2006.

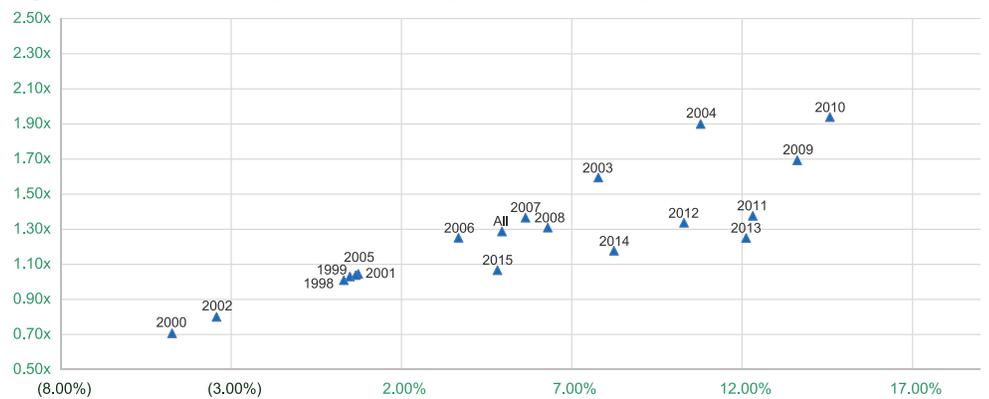
An immediate conclusion is that the EUR/USD conversion has only a mild impact on the overall assessment of the performance of European venture capital funds

Table 3 – Performance of Western European venture capital funds in USD and EUR

Currency	Pooled MIRR	Top 5%	Upper 25%	Lower 25%	Bottom 5%	Arithmetic Av.
USD	0.83%	9.68%	3.77%	(3.41%)	(9.93%)	0.27%
EUR	0.92%	10.03%	4.23%	(3.88%)	(10.30%)	0.18%

Source: eFront PEVARA, as of Q3, 2017.

Figure 1 – TVPI/IRR dispersion of European venture capital funds in USD



Source: eFront PEVARA, as of Q3, 2017.

Figure 2 – TVPI/IRR dispersion of European venture capital funds in EUR



Source: eFront PEVARA, as of Q3, 2017.

² Modified IRR, or MIRR.

Further analysis

However, some additional biases might be related to the relative maturity of venture capital in the sample. The difference in Distributed to Paid-In ratio (DPI) between US and European funds (Table 3) indicates that US funds are much more mature than their Western European counterparts. This is of particular importance as fully realized US venture capital funds benefited from particularly favourable conditions in the decade 1990. European venture capital did not experience such boost as the sector was still nascent. In fact, their performance effectively recorded the end of the cycle and chiefly the difficult vintage years of early 2000. Therefore, a more rigorous approach would focus on identical vintage years in samples (namely 1998-2015) in order to effectively compare the impact of foreign exchange.

Table 4 shows that once the sampling bias is eliminated, the performance of Western European and American venture capital is rather similar. The DPI of US funds is slightly higher, as are their performance metrics. However, the difference is much smaller than previously seen: the TVPI of US venture funds is 5.5% higher than for Western European peers. As for IRR, the difference is of 47 basis points in favour of US funds.

Table 4 – Compared performance of US and Western European venture capital funds in USD (vintage years 1998-2015)

Region	Pooled DPI	Pooled TVPI	Pooled IRR	Upper 25% TVPI	Lower 25% TVPI	Bottom 5% TVPI
USA	0.86x	1.34x	4.95%	1.59x	0.73x	0.35x
West. Europe	0.76x	1.27x	4.48%	1.40x	0.69x	0.32x

Source: eFront PEVARA, as of Q3, 2017.

Along these lines, a change of currency might tip the balance. Table 5 exhibits the performance of the same sample in euros. While the DPI of US venture funds and the upper quartile TVPI remain higher than the one of Western European funds, the other performance metrics are lower. A rather counter-intuitive conclusion is that investors which are “home investing”, an investment bias documented by behavioural finance, have been effectively rewarded by the impact of currencies on the performance of their local venture funds.

Table 5 – Compared performance of American and Western European venture capital funds in EUR (vintage years 1998-2015)

Region	Pooled DPI	Pooled TVPI	Pooled IRR	Upper 25% TVPI	Lower 25% TVPI	Bottom 5% TVPI
USA	0.81x	1.29x	3.93%	1.63x	0.65x	0.27x
West. Europe	0.77x	1.31x	4.61%	1.42x	0.66x	0.27x

Source: eFront PEVARA, as of Q3, 2017.

Another logical conclusion is that once US and Western European venture funds are resampled and compared over the same timespan, their performances are similar. The historical performance of US venture capital in the early- and mid-1990s was an outlier. More recent performances, including funds which are still in the making (vintage years 2010-2015), show that US and Western Europe are at par on an aggregated basis. However, upper quartile American venture capital funds still outperform significantly their Western European peers.

Once sampling biases are eliminated, the performance of Western European and American venture funds is rather similar

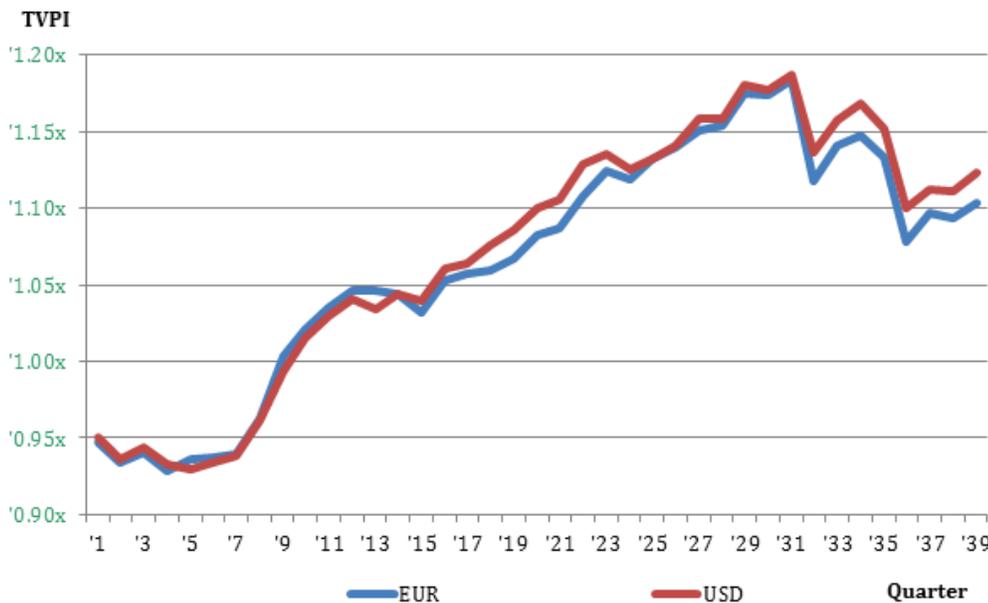
Surprisingly, this convergence was not necessarily associated with a dilution of the performance of US venture capital. If the double-digit IRRs recorded in the 1990s have vanished, the pooled average multiples remain attractive. This is of particular importance as fund investors ponder their asset allocation on this basis first, and then test their allocation by injecting the performance of fund managers belonging to the upper and lower quartile (or 5%) brackets.

Beware of potential analysis biases

How does foreign exchange affect quarterly performance communications of Western European venture capital funds? Fig. 3 illustrates the difference for a given performance expressed in euros and US dollars. On aggregate, investors using dollars to invest in Western European venture capital funds fared better than those using euros. Additional foreign exchange effects might also play a role, as some Western European funds use a different currency of reference (such as the British Pound, the Swedish Krona or the Swiss Franc).

Counter-intuitively, "home investing" investors have been effectively rewarded by the impact of currencies on the performance of their local venture capital funds

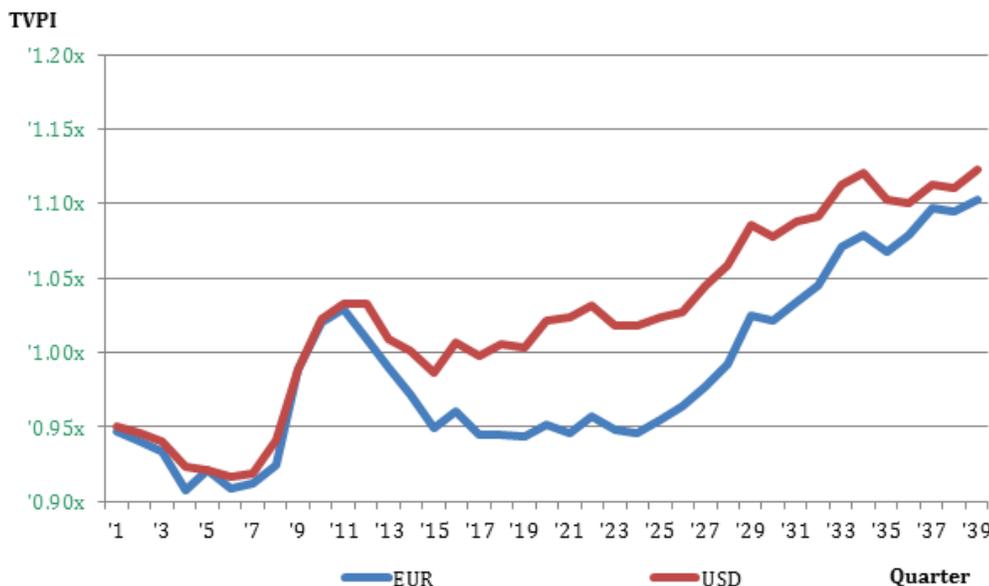
Figure 3 – Quarterly evolution of the TVPI of Western European funds in EUR and USD



Source: eFront PEVARA, as of Q3, 2017. The curves aggregate vintage years 1998-2015.

Interestingly, the effect is not constant. At times, the performance expressed in euros was equal to the one in US dollars, or even better. The significant discrepancy from Quarter 32 onwards might be related to a difference between fully realized vintage years and more recent active ones. The latter ones do not contribute to the end of the curve. Looking at fully realized funds only (Fig. 4), our intuition is confirmed: the positive impact of US dollars on the performance of Western European funds appears clearly, although euros started to catch up with the US dollars from Quarter 26 onwards.

Figure 4 – Quarterly evolution of the TVPI of fully realized Western European funds in EUR and USD



Source: eFront PEVARA, as of Q3, 2017. The curves aggregate vintage years 1998-2008.

Conclusion

Sometimes a performance really hides another one. A case in point is European venture capital funds, which are often compared unfavourably to their US peers. Once currency and sample biases are corrected, the conclusion is that venture capital funds in western developed markets perform similarly. For fund investors, this is positive: they have an expanded investment universe, richer and more diversified, providing a relatively homogeneous level of performance on a pooled average basis.

An open question remains: how to manage foreign exchange volatility, for example when dealing with venture capital funds in developing countries? Some currencies might prove to be very volatile and pro-cyclical. This can be an issue for international investors, potentially wiping out the underlying performance – or magnifying it beyond the actual value creation. This remains a challenge to tackle for investors willing to expand further their investment horizons.

The aim of this newsletter is to provide readers with elements of analysis and understanding of the private finance universe, based only on data collected by Pevara. It does not intend to draw any definitive conclusion, nor judge the performance of fund managers. By providing a guided reasoning, FrontLine hopes to contribute to the overall progress of understanding of the asset class in a short monthly format, with all the limits that this entails.

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