Reforming UK Venture Capital Trusts

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Comments welcome

Abstract

The VCT scheme offers large tax breaks (worth around 38.4% of the amount subscribed) to encourage UK taxpayers to invest in start-up companies. Taking account of deadweight and other effects, the scheme currently costs close to £1 in tax subsidies per additional £1 invested in eligible venture capital projects. Despite the large tax subsidy, the scheme is unpopular: only 13,420 taxpayers subscribed to VCTs in 2013/14. This paper finds that the most likely reason for its unpopularity is the very poor liquidity of listed shares in VCT funds, and that this illiquidity is – perversely – largely the result of the tax breaks. This suggests that the scheme could be made much more cost effective by altering the tax regime so as to improve liquidity. Possible options for reform are identified.

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Executive Summary

Venture Capital Trusts (VCTs) were introduced by the UK government in 1995, offering substantial tax breaks to individuals who invest in small business start-ups. Since then around £6bn has been subscribed in the scheme.

This paper finds that the cost-effectiveness of the VCT scheme is very poor. Deadweight is a problem and the immediate 30% income tax relief on VCT subscriptions gives VCT fund managers an incentive to invest only the required minimum in qualifying assets and to return cash to investors as soon as possible. Taking such factors into account, the VCT scheme currently costs close to £1 in tax subsidies per additional £1 invested in start-ups.

Despite the large tax breaks, very few taxpayers subscribe to VCTs (only 13,420 in 2013/14). In the same year 3 million savers subscribe to stock/share ISAs even though these offer much more modest tax breaks: equivalent to around 8.4% of the amount subscribed, compared to 38.4% for VCTs. The failure of VCTs to attract more subscribers can be ascribed to: (i) unnecessary frictions involved in subscribing to the scheme (investors must subscribe and then separately claim relief on their income tax returns – behavioural research in other fields has shown that even such small frictions can have a large effect); (ii) the fact that VCT shares are almost entirely illiquid.

This illiquidity is an unintended consequence of the tax subsidies. VCTs are structured as closed-end investment trusts, which should allow investors to obtain liquidity in the secondary market (by selling their VCT shares to other investors), but the current tax regime (i) imposes a five year minimum holding period to prevent investors from claiming multiple income tax relief; (ii) encourages the fragmentation of VCT funds into very small share classes. Plausible estimates of the investor liquidity premium suggest that the benefits of the income tax relief are almost entirely offset by the needless illiquidity of VCT shares. Consistent with this, VCT subscriptions currently come overwhelmingly from wealthy taxpayers (the group most likely to have funds that they are willing to lock up in illiquid investments): 57% of the amount subscribed in 2013/14 came from just 2,010 investors who each subscribed over £50,000.

Removing the 30% income tax relief would leave VCTs with only the tax breaks currently given to ISAs, saving £130m p.a., but would open the scheme up to those deterred by the current frictions and illiquidity. There is evidence of significant unmet demand for such schemes: 1.2 million investors already save the maximum permitted annual amount in equity or combined cash/equity ISAs, at least some of whom would like to save more.

Furthermore the current income tax relief gives VCT fund managers a strong incentive to return cash to investors as soon as possible, allowing investors to subscribe for new VCT shares and claim another round of tax relief. Given more general criticism of the UK financial system for taking excessively short-term decisions (c.f. Kay, 2012) it is perverse that the current tax breaks give VCT managers an additional incentive for short-term investing.

Once the problems caused by the immediate income tax relief are removed, behavioural insights can be used to further improve the cost-effectiveness of VCT. For example, research showing that restricting choice makes decision-making easier suggests that imposing a much lower maximum annual subscription into VCTs may further increase take-up. Other options for reform could take account of the fact that the success of the ISA scheme has left ISA providers as the "gatekeepers" to a significant proportion of overall saving flows (£18.4bn per annum is subscribed to stock/share ISAs alone). This would be the most salient point at which to influence investor behaviour. Nudging just over 2% of this flow into venture capital would match the achievements of the current VCT scheme at greatly reduced Exchequer cost.

Reforming Venture Capital Trusts

1. Introduction

The Venture Capital Trust (VCT) scheme offers tax advantages designed to boost investment in small business start-ups. Subscriptions totalled £435m in 2014/15, and a cumulative £6bn since the scheme was introduced in 1995.

The VCT scheme currently offers very substantial tax subsidies. Investors subscribing up to £200,000 per annum:

- Receive an immediate 30p income tax rebate for every £1 they subscribe.
- Pay no tax on dividends or capital gains on these investments.

Table 1 shows how subscriptions to VCTs have evolved since the scheme was introduced. These amounts are clearly cyclical (dropping substantially following the dotcom crash and the financial crisis of 2008/09), and also very responsive to changes in the rate of income tax relief (notably the dramatic jump in response to the increase in income tax relief from 20% to 40% in 2004/05). [1]

[1] The Enterprise Investment Scheme (EIS) is related to VCT, but EIS encourages taxpayers to invest directly in individual start-ups whereas the VCT scheme offers incentives to invest indirectly in portfolios of VC start-ups by subscribing to VCTs which are managed by professional fund managers.

TABLE 1: Subscriptions to VCTs

	Funds subscribed (£m)	VCTs raising funds in the year	VCTs managing funds	Rate of Income Tax Relief (%)
1995-96	160	12	12	20
1996-97	170	13	18	20
1997-98	190	16	26	20
1998-99	165	11	34	20
1999-00	270	20	43	20
2000-01	450	38	61	20
2001-02	155	45	70	20
2002-03	70	32	71	20
2003-04	70	31	71	20
2004-05	520	58	98	40
2005-06	780	82	108	40
2006-07	270	32	121	30
2007-08	230	54	131	30
2008-09	150	46	129	30
2009-10	340	68	122	30
2010-11	350	78	128	30
2011-12	325	76	124	30
2012-13	400	65	118	30
2013-14	440	66	97	30
2014-15	435	57	94	30
Total	5,940			

Source: HMRC (1)

In 2003 HMRC estimated the total tax subsidy at 28.4% of the amount subscribed (PACEC, 2003). The immediate income tax relief was then 20%. The additional 8.4% represented the tax which would have been paid on dividends and capital gains. This estimate clearly depends on detailed assumptions about investors' marginal income tax rates and the probability distribution of VCT returns (since the tax liability is a non-linear function of the performance of the VCT). For current purposes we have no desire to re-open this calculation. The key point is that most of the tax foregone is due to the immediate income tax relief. This relief currently stands at 30% (see Table 1), so the total tax foregone can now be taken to be around 38.4% of the amount subscribed to VCTs.

Earlier assessments of the VCT scheme concluded that it generated small but generally statistically significant economic benefits (e.g Cowling, 2008). This paper does not seek to question the impact of the scheme on the firms receiving finance. Instead it considers the

incentives of VCT subscribers and VCT fund managers, and investigates why so few investors subscribe to the scheme despite the large tax breaks. It concludes that the scheme could be restructured to deliver the same outputs at reduced Exchequer cost.

2. Literature Survey

Governments around the world have sought to boost the supply of venture capital, with mixed success. Lerner (2009) argues that these schemes frequently fail to achieve their goals and that before considering subsidies governments need to ensure that the appropriate infrastructure is in place to support venture capital (VC) projects, including: the legal/regulatory environment; the skills available in the workforce and a strong science/research base. He also stresses the importance of the incentives generated by government intervention. When considering government schemes across the world which aim to boost VC: "far too often, participants in public schemes to promote entrepreneurship do well, no matter whether the programme meets the public sector's objectives. In fact, in many instances, they do well even if the companies go belly up!" (Lerner, 2012).[2]

Government support for venture capital lending can be justified on two distinct grounds. One argument is that there is a "venture capital gap" which prevents lending even to projects which are likely to be profitable (in particular, that information asymmetries mean that young firms face acute problems in convincing lenders that they are suitable). The other rationale is that successful venture capital projects have a beneficial impact on the wider economy ("externalities"), so such projects should be encouraged even if on average they are unprofitable.

Statistical analysis of the VC industry is impeded by the quality of the available data. Da Rin et al. (2011) survey the field and report that datasets of VC returns tend to suffer from substantial reporting bias (which may under-report poor performers, thus exaggerating average returns). Thus even when outturns for government-supported VC investments appear attractive, it is very hard to infer a causative relationship, since self-selection effects

[2] Cumming and MacIntosh (2006) argue that the Canadian Labor Sponsored Venture Capital Corporation (LSVCC) program was particularly badly designed and not only lost money, but also resulted in more than 100% crowding out of private sector capital: "Not one single LSVCC has achieved financial performance better than 30-day T-bills since their inception (Cumming and MacIntosh 2007). Despite this poor performance, LSVCCs charge very high management expense ratios (on average, over 5%)".

mean that good investment projects may instead be attracted into supported schemes. The validity of the statistical methods used to infer the effects of government support is sometimes hotly contested (e.g. Cumming, 2014).

These factors have led to contradictory conclusions about the overall effect of government support for VC. UK companies backed by private venture capital were found to be significantly more likely to obtain a positive exit (26.4%), especially through acquisition (20.9%), than public VC-backed firms (Munari and Toschi, 2014). Cumming et al. (2014) find that "private independent VC-backed companies have better exit performance than government-backed companies". But Brander et al. (2010), using an international dataset, found that enterprises that are partly funded from government sources are more likely to exit successfully via IPO, but that this effect becomes negative if a large proportion of funding comes from the government.

The UK government has commissioned several studies into the effects of the VCT scheme (PACEC, 2003, Cowling et al. 2008, IPSOS-MORI 2016). Cowling et al. (2008) find that VCTs have a small but positive effect on fixed capital formation and employment in recipient companies, although survival rates are, if anything, lower than for comparable firms. The authors stress the problems of self-selection in the dataset. More generally, Cumming (2014) notes that venture capitalists provide coaching and contacts as well as capital.

Statistical uncertainties are compounded by changes in the policy environment. Following the Competitiveness White Paper in 1998, the government established publicly-backed VC funds to "Demonstrate to potential investors that commercial returns can be made" in VC. But subsequent appraisal found that high tech and Regional VCFs had made substantial losses (NAO, 2009), demonstrating that private investors had been right to avoid such investments. In response the government established the Capital for Enterprise Limited scheme. The government has recently announced further major reforms in the field of business lending: (i) British Business Bank Plc, launched in November 2014 with the objective of increasing availability of credit to SMEs; and (ii) Innovative Finance ISAs (available from April 2016) which allow P2P (person-to-person) lending within an ISA tax-free wrapper. These reforms — together with the growth and development of the international VC industry over recent years— open up the question of whether VCTs are still needed, and more generally whether

there still a venture capital gap. These broader questions are beyond the scope of this paper, which addresses a more specific question: on the assumption that there is still a need to boost the supply of VC finance, can the VCT scheme be reformed so as to achieve this goal more cost-effectively than it does at present?

3. What is the current tax subsidy per pound of additional investment?

The cost effectiveness of schemes such as VCT, which aim to redirect economic activity, depends on additionality. This is defined as the extent to which the desired activity is greater as a result of the scheme than it would otherwise have been. Such interventions are typically affected by deadweight, i.e. subsidies that go to activities that would have taken place even without the scheme.

Additionality will always be difficult to estimate. The study conducted by PACEC (2003) estimated additionality by asking VCT investors "would you have considered investing in any other, similar companies (i.e. small, higher-risk, unquoted, trading companies) if the scheme did not exist?": 43% answered "probably not" and 34% "definitely not" (N=271), giving estimated additionality of 77%. A question to more specific investors gave 87%.[3]

However the objective of VCTs is to allow firms to raise capital when they otherwise would not have been able to do so. Surveys of *investors* give answers that are at best indirectly related to this objective. Instead additionality can only be addressed directly by asking *investee companies* whether they could have obtained finance from elsewhere. Answers to this question were more equivocal ("Would your company have taken other actions to achieve the same changes and effects as you have just mentioned, if it had not been able to raise finance by issuing VCT shares?" Definitely 18%, probably 22%, possibly 30%, probably not 23%, definitely not 7%. N=250). The PACEC study did not base its additionality estimate on this data because it was not clear how successful these "other actions" would have been.

[3] "VCT investors who stated the value of their first investment and said that they knew which companies they were investing in indirectly and indicated the extent to which they would have invested anyway in the same companies in the absence of the scheme, actually invested a total of £2.8 million and implied that £2.5 million of this (87%) was additional." (PACEC, 2003). However, subscribers delegate to the VCT fund manager the choice of the portfolio of firms invested in. These investee firms will be disclosed in VCT's annual reports, but typically only after the fund has been invested. Relatively few investors are likely to already be acquainted with the firms that they will be investing in via VCT.

Based on these considerations, the PACEC study estimated additionality at between 70% of and 87%, implying tax-subsidy-per-additional-pound at relatively modest levels of 33-41% (=28.4%/87% to 28.4%/70%). However:

(a) The tax subsidy has subsequently been raised to 38.4%

(b) The PACEC figures were per pound raised by funds, but not all of this reaches start-ups. VCTs must within 3 years invest at least 70% of the funds they have raised into qualifying VC projects. However, they have little incentive to exceed this minimum, since the excess funds can be used to pay their fees or pay early dividends, allowing investors to recycle the tax relief. This incentive is confirmed by statements made in VCT prospectuses[4], and the surplus funds can be seen on VCT balance sheets. For this reason it is more reasonable to assume that only around 75% of the money subscribed to VCTs is passed on to investee firms.

(c) The IPSOS/MORI 2016 evaluation estimated additionality based on whether investee companies stated that their investment requirement would have been met without EIS or VCT funding: 35% responded definitely not and 28% probably not, leading to total (62%) estimated additionality. This question gets closer to the definition of additionality.

These factors suggest that the tax-subsidy-per-additional-pound is instead around 83% (=38.4%/(62%x75%)). Our estimate of this ratio should also take account of the following factors:

1) There should in principle be a discounting adjustment, since the large majority of the tax breaks are realised almost immediately (the 30% write-off), but subsequently generate investments over a period of up to 3 years in the future.

2) Substitution. Assessment of such government schemes normally considers not just additionality (i.e. whether the funded activity would have taken place anyway) but also whether any additional activity was achieved by diverting activity from a neighbouring

[4] E.g. DPV2 fund prospectus (2013): "Within three years of the close of the Offers the approximate allocation will be: Qualifying Investments 75%, Non-qualifying investments 25%"

region (displacement) or a different category (substitution). The absence of any substitution effects in previous estimates of the cost effectiveness of VCT would be consistent with increased investment in venture capital being an end in itself. However government statements on VCT and related schemes suggest that the scheme is motivated instead by the underlying benefits in the form of increased employment, growth or innovation that result from venture capital funding. If these underlying factors are the true objective, then we should consider the extent to which greater employment/growth/innovation in the type of firms supported by VCT is to some extent achieved by correspondingly reduced employment/growth/innovation in other firms. The scale of these effects is difficult to estimate, but any degree of substitution above zero would reduce the cost effectiveness of the scheme.[5]

3) Other sources of government subsidy may also sometimes be used by investee companies for the same projects.[6]

4) The apparent additionality of the scheme may perversely have been boosted if private sector lenders have been driven out of this market over the last 20 years as a result of the difficulty of competing with the large subsidies available under VCT.

Although hard to quantify, each of the effects listed above would unambiguously reduce the cost effectiveness of VCT, implying that the 83% total tax subsidy per net additional pound invested by VCT-supported firms calculated above should be taken as an underestimate. The safest conclusion is probably to avoid misleadingly specific estimates, and instead regard the tax subsidy as around 100% of the net additional VCT investment.

[5] Consistent with this, PACEC (2003) acknowledged substitution and displacement effects, reporting that these "appear to be moderate", but their surveys do not cover the question of whether firms receiving VCT funding had abandoned non-eligible investments in favour of projects eligible for subsidised VCT funding.

[6] The IPSOS/MORI (2016) hints at the use of grants: "VCT investees were more likely than EIS investees to say they had sought other external finance outside of their respective scheme since 2011 (70% versus 58%). Four main other sources of finance were sought by over a third of all investees: another source of investment or equity finance (52%); formal (e.g. through a bank) or informal (e.g. through a friend) loans or credit agreements (49%); an overdraft or loan with a bank (37%); or non-returnable grants for a specific purpose (36%). Both EIS and VCTs were typically used alongside only one other source of finance."

The surveys which are used to derive additionality estimates may also be subject to behavioural biases:

- *Social desirability bias*, by which respondents exaggerate the extent to which they participate in behaviour which is regarded as desirable (such as voting), and under-report behaviour which is regarded as undesirable (such as heavy drinking, drug use or certain sexual practices)[7]. In the context of VCTs respondents may find it more socially desirable to report that VCT funding was vital, rather than admit that they took advantage of the subsidised scheme even though alternatives were available.
- There is also evidence that volunteers for surveys and experiments try to be helpful by giving answers that confirm what they perceive to be the hypothesis that is under investigation (e.g. Nichols and Maner, 2008).
- On the other hand, ex ante *overconfidence* and ex post *attribution bias* may leave entrepreneurs with an exaggerated impression of the quality and attractiveness of their project to potential lenders.

These biases might be magnified by the inevitably modest response rates to such surveys (e.g. the PACEC survey of 2276 investors had 285 responses: 12.5%), which imply that respondents are a self-selected – and possibly unrepresentative – sub-sample of the true population in the sense that those who agreed to participate might be more pre-disposed to the biases outlined above (Slonmin et al. 2013).

The possibility of such behavioural biases is an additional source of uncertainty, but unlike the other effects listed above, both the size and net direction of any overall behavioural bias is indeterminate.

4. Who subscribes to VCTs?

HMRC publishes detailed figures on the numbers of investors subscribing to VCTs (Table 2). The biggest surprise is that despite the very substantial tax advantages very few taxpayers use the scheme. Only 13,420 investors subscribed in 2013/14. Indeed over 57% of the amount

[7] For example, see Nederhof 1985, Kreuter, Presser, and Tourangeau, 2008. This effect tends to be greater when there is direct interaction with the respondent (e.g. in telephone surveys). Incidentally, this might explain the greater level of support shown for Brexit in online surveys than in telephone surveys.

raised came from just 2,010 investors who each subscribed over £50,000, and 34% came from 810 investors who subscribed over £100,000. These are clearly taxpayers with substantial taxable incomes and large sums available for investment. The 13,420 investors subscribing to VCTs contrasts with the 3 million investors who subscribed to stock/share ISAs (and a further 9.4 million in cash ISAs) in the same year.[8]

Table 2: VCT subscriptions2013/14

Investment (£, Upper limit)	Number of investors	Investment (£m)
1,000	865	0.3
2,500	505	0.9
5,000	1,390	6.1
10,000	3,130	26.2
15,000	1,305	17.0
20,000	1,330	25.2
25,000	740	17.4
50,000	2,140	81.9
75,000	615	38.6
100,000	585	54.9
150,000	265	33.5
200,000	545	106.5
Total	13,420	408.4

Source: HMRC (2)

ISAs and VCTs have both been in existence for around 20 years, but despite VCTs offering much greater tax subsidies they have raised only a fraction of the amount. ISAs and VCTs are both free of tax on dividends and capital gains, but VCTs also offer the immediate 30% income tax write-off. Thus compared to the 38.4% tax subsidy for VCTs above, ISAs offer only around 8.4% tax subsidy. In 2013/14 a flow of £18.4bn was subscribed to stock/share ISAs (rising to £21.4bn in 2015/16, with an additional £58.8bn subscribed to cash ISAs). Thus flows into stock/share ISAs are 45 times the annual amount subscribed to VCTs, despite the far greater tax subsidies given to the latter.

[8] Amounts subscribed to Adult and Junior cash and stocks and shares ISAs. This does not include the (small) insurance component or innovative finance ISAs (available from April 2016) or the new Lifetime ISA (available from April 2017).

Clearly something about VCTs is extremely unattractive, offsetting their very substantial tax advantages. We can identify two broad factors which would tend to deter investors: the first entirely rational, the second behavioural:

(1) VCT subscribers cannot realise their cash when they want. Instead they must regard their investment as illiquid;
(2) In order to be effective, Government interventions which aim to alter individual behaviour need to be salient and to offer easily-administered choices. However, the process of subscribing to a VCT currently involves significant frictions: the taxpayer must find an attractive provider which is currently issuing shares, and then claim the resulting income tax relief on his/her tax return. These frictions may seem minor, but research in other fields has demonstrated that even small frictions can have a substantial effect on behaviour (e.g. organ donation and pension contribution defaults, see Kahneman 2012). A more specific indication of these frictions can be seen in the fact that VCTs often pay commissions of around 4-5% to financial advisers who direct their clients' funds to their VCT issues (sums which are ultimately paid for by the investor). By contrast, ISA funds put a lot of effort into attracting subscribers (especially at the end of the tax year), and have a strong incentive to make the process as easy as possible.

Venture capital is normally considered a risky asset class, but it is not clear how much of a deterrent this is to retail investors, since some do not consider VCT investments to be high risk.[9] Furthermore, many investors appear insensitive to risk since they fail to take the most obvious measure to reduce portfolio risk: diversification. Successive studies have found that a large proportion of individual investors are badly underdiversified (Barber and Odean, 2000, Polkovnichenko, 2005, Goetzmann and Kumar, 2008). Consistent with this, there is plenty of evidence — both within finance and more generally — that investors are massively

[9] The IPSOS/MORI 2016 survey found that: "In the qualitative research, several investors said they did not necessarily consider venture capital schemes, particularly VCTs, to be high-risk investments. On the contrary, they considered their investments to be prudent compared to investments in Public Limited Companies. A recurring reason offered was that the stock market had performed comparatively poorly since the 2008 crash, whereas VCTs appeared to have a better track record of more consistent returns for the time they had existed."

overconfident about their abilities and the decisions that they make (e.g. Barber and Odean, 2001 and Taylor and Brown, 1988).

We return to issues of frictions in considering alternative structures of VCT in section 7 below. First we consider the illiquidity of VCT shares.

5. Illiquidity: the structure of VCTs and the VCT fund industry

There are two basic forms in which collective investment schemes can be structured: open-ended (Open-Ended Investment Companies (OEICs) and unit trusts) and closed-ended funds (Investment Trusts). The difference lies in how these different structures cope with investors wishing to invest more cash, or redeem investments they have previously made in a fund.

Investors deal directly with open-ended funds. If I send a cheque for £1000 then the fund will use this cash to buy additional assets within its chosen field, and will inform me how many "units" in the fund I now own. When I wish to cash in my investment I contact the fund to tell it that I wish to sell my units. The fund will then sell assets to the appropriate value and send me my cash.

This open-ended structure works well for funds which invest in liquid assets such as UK government bonds or shares in the FTSE100 index. It works less well for funds which invest in illiquid assets such as real estate. If such a fund receives a large number of redemption requests from its investors then it may not be able to give them their cash, because it is not feasible to sell buildings quickly. In these circumstances the fund may be forced to "gate" redemptions, only releasing cash gradually to their investors as sales of the fund's assets allow. This is not an insuperable problem – some open-ended funds do invest in illiquid assets but it requires investors to accept that they may not be able to redeem their cash on demand (for example, faced by a large number of redemption requests following the Brexit referendum, several large real estate funds were forced to gate their redemptions).

Like real estate, venture capital investments in small start-ups are illiquid, since a fund investing in such assets cannot suddenly demand its cash back from a start-up. Instead it must wait for a "liquidity event" such as a successful start-up issuing shares in an IPO (Initial Public Offering). For this reason, it may be preferable for such illiquid assets to be held in closed-end

funds, since these do not face redemption requests. Instead they issue a fixed number of shares which are traded on the stock market. Investors who want to put their savings into this fund buy these shares on the market, and they can subsequently get their cash back by selling their shares on the market to another investor. The advantage of this structure is that investors can redeem their investment when required even if the fund has invested in illiquid assets such as real estate or venture capital. The issue of gating does not arise.

This solution is not perfect. Closed-end funds face the additional cost of issuing their own shares, and investors bear the transactions costs involved in trading these shares. The price of these shares is determined by supply and demand in the market, so for an unpopular fund it may drop to a discount below the value of the fund's assets. Nevertheless, the closed-ended structure is likely to be more suitable for funds investing in illiquid assets such as real estate or venture capital, since it allows savers to invest in fundamentally illiquid assets in a form which generally allows them to redeem their investment when they wish, by selling their shares in the investment trust to another investor.

VCTs are structured as closed-ended funds – indeed, they are required to take this form in order to qualify for the tax breaks. This would seem entirely appropriate given the illiquid assets that they invest in, but despite this there is almost no liquidity available to investors, since: (i) Investors selling their VCTs within five years lose the 30% income tax relief that they gained when they subscribed. This 5 year lock-in period is designed to prevent investors from rapidly selling and reinvesting in order to qualify for another tax rebate;[10] (ii) even after this, market liquidity of VCT shares is generally very poor: investors wishing to redeem their cash sometimes face very wide market spreads, and even at these quoted prices market makers are typically only committed to trade 500 or 1000 shares. There are several factors behind this poor liquidity:

(i) The average VCT is very small because many VCT providers run multiple funds simultaneously, and funds often have multiple share classes corresponding to successive issues of new shares. Thus there are relatively few shares in issue for each distinct VCT share. There are currently 119 separate VCT share classes, but only 33

[10]VCT shares issued before 6 April 2000 or after 5 April 2006 must be held for at least five years, between these dates only three years were required.

VCT providers. This fragmentation of the industry can be seen in the full list of current VCTs attached at Annex A. This fragmentation comes about because managers need to keep issuing new shares (which qualify for income tax relief) in order to attract new subscriptions. They often do this by issuing new share classes (B shares, etc.) or shares in entirely new trusts. These shares are not interchangeable, even though they may contain very similar portfolios of underlying VC assets. As a result of this fragmentation, the average share class contains only £30m in assets (see Table 3).This contrasts dramatically with private equity (PE) and real estate investment trusts where fund managers know that good market liquidity will help attract investors, so they avoid needlessly splitting into distinct share classes. As a result, PE and real estate funds benefit from the inherent advantages of being structured as closed-end ITs, whilst VCTs do not.[11]

Table 3

	Total assets (£m)	No. of funds (distinct share listings)	Average assets per trust (£m)
Private Equity	21,600	28	770.4
Property	17,500	31	563.8
VCTs	3,600	119	30.1

Source: AIC, data accessed on 10/8/2016

(ii) Even beyond the 5 year lock-in period, demand for VCT shares in the secondary market is low, since these "old" shares do not entitle the buyer to the 30% income tax relief.

This means that in practice VCT subscribers generally need to work on the assumption that the rate at which they redeem their investment is not under their control, but is instead determined by the flow of dividend and capital repayments from the fund. This illiquidity is very unattractive. Investors generally demand a significantly higher expected rate of return

[11] Realising that in practice market liquidity in their shares is very poor, some VCTs offer a buyback service, under which the fund will – if it holds sufficient cash – buy shares directly from investors. This illustrates the underlying problem: that instead of the closed-end structure allowing investors access to liquidity by selling their shares in the market, VCT funds are instead forced to act like open-ended funds by dealing directly with investors.

(a "liquidity premium") before they are willing to invest in illiquid assets. A large number of prior studies have estimated liquidity premia for a range of different markets. These vary widely, but can be very large. In equity markets liquidity premia have been estimated for US equities at 3.5% (Acharya & Pedersen, 2005) and 7.5% per annum (Pastor & Stambaugh, 2001), although much lower estimates have been obtained for bond markets (Hibbert at al. 2009 provides a survey)

To illustrate the effect of such liquidity premia, let us take the lower of these equity market estimates, and assume that VCT investors expect to receive their money back after an average of 8 years (tax regulations in force a minimum of five years, and in practice distributions will take a significant time beyond this to return cash to the investor). This investor would value each pound locked into an illiquid investment for 8 years as equivalent to only 75.9p invested in a liquid investment (=$1/1.035^8$) the 7.5% liquidity premium estimate would imply only 56.1p. Similarly, Pereiro (2015) cites a mean illiquidity discount of 47.3% in surveys of companies before and after their IPOs (1980-2000). These estimates suggest that for many investors the deterrent effect of the illiquidity could be large enough to offset the attraction of the initial income tax relief (whereby each pound invested costs the investor a net 70p).

These calculations are inevitably broad-brush. In particular, liquidity is not quite zero, since some secondary market sales might be possible (albeit at a discount) and some funds offer buybacks. However, VCT share prospectuses feature clear warnings about this lack of liquidity, stressing that investors should subscribe on the expectation that the investment will be illiquid even after the 5 year horizon.[12] They also stress the *regulatory risk* that the current tax breaks might be lost.[13] These factors could be large enough to deter many investors

[12] For example: "Although the existing Shares have been (and it is anticipated that the New Shares will be) admitted to the premium segment of the Official List and are (or will be) traded on the London Stock Exchange's market for listed securities, the secondary market for VCT shares is generally illiquid. Therefore, there may not be a liquid market (which may be partly attributable to the fact that initial tax reliefs are not available for VCT shares generally bought in the secondary market and because VCT shares usually trade at a discount to their NAV) and Shareholders may find it difficult to realise their investment. An investment in the Companies should, therefore, be considered as a long term investment." Source: Octopus AIM VCT plc and Octopus AIM VCT 2 plc prospectus for 2015/2016 and 2016/2017.

[13] "The tax rules, or their interpretation, in relation to an investment in the Companies and/or the rates of tax may change during the life of the Companies and may apply retrospectively, which may adversely affect the performance of the Companies." "Whilst it is the intention of the Boards that the Companies will continue to be managed so as to qualify as VCTs, there can be no guarantee that such status will be maintained. Failure to continue to meet the qualifying requirements could result in the Shareholders losing the tax reliefs available for VCT shares, resulting in adverse tax consequences including, if the holding has not been held for the relevant

despite the massive tax advantages and could explain the otherwise astonishing fact that VCTs attract only 13,420 investors each year whilst ISAs attract far more despite having far more modest tax advantages than VCTs. The importance of illiquidity as a deterrent to potential investors is also consistent with the fact that, as shown in Table 2, it is overwhelmingly high income investors who subscribe to VCTs, since this is the group that is most likely to have surplus funds that they are happy to lock into illiquid investments.

6. How The Decision To Invest In VCT Is Framed

We can gain some insight into the motivation of VCT investors by looking at how VCT funds encourage investors to frame the decision to subscribe. We can observe this on providers' websites and more formally in prospectuses describing issues of new VCT shares. Tax subsidies are the main attraction of VCTs.[14] Specifically, the returns to these investments can be framed to incorporate the 30% income tax relief as an integral part of the investment return, as in the following example:

Table 4

		Net cost per share	Total cash distributions	Annualised return
Puma VCT plc	2005	60p	101p	11. 5%
Puma VCT II	2005	60p	101p	11.70%
Puma VCT III	2006	60p	94.6p	9.70%
Puma VCT IV	2006	60p	93.3p	9.60%
Puma VCT V	2008	70p	106.3p	8.40%

Source: Puma VCT 12 PLC Offer for Subscription, October 2015

The Table shows the total cash distributions made by VCT funds previously issued by a large provider, as presented in the prospectus for a subsequent issue of the fund's shares. These previous VCTs had been wound up, so no further distributions could be expected. The large tax subsidy means that this investment track record looks attractive even though the gross

holding period, a requirement to repay the tax reliefs obtained." Source: Octopus AIM VCT plc and Octopus AIM VCT 2 plc prospectus for 2015/2016 and 2016/2017.

[14] The 2016 IPSOS/MORI study confirms this. Among VCT investors, "eight in ten (79%) considered the Income Tax relief on subscribed shares to be either an *essential* (32%) or at least *very important* (47%) part of their investment decision"

return on the fund's projects was low. Total distributions of (at best) just over 100p over several years represent a very unattractive return on the 100p gross investment (plus subscription costs which may be around 4-5%). But it represents an attractive return on the net of tax cost (60p between 2004 and 2006, 70p thereafter). Indeed, investing in assets which generate an attractive gross return does not even feature among the principal objectives of this VCT.[15]

If the initial tax relief is the main component of the investor return then providers know that to maximise the annualised return they must return cash to investors as quickly as possible.[16] This gives funds a strong incentive to:

i. Invest no more than the 70% required minimum of funds they receive from subscribers in qualifying assets. The remaining 30% can be kept in cash or safe and liquid non-qualifying assets such as government bonds, and can be used to pay (i) the funds' costs and fees (more on this below); and (ii) early dividends to investors;
ii. To invest in the safest and most liquid assets that fall within the qualifying criteria, since this makes it easier for the VCT to return cash to investors quickly.[17] This undermines the cost effectiveness of the VCT scheme since such investments are likely to be non-additional (deadweight) since banks and other lenders are comparatively likely to make such loans even without the subsidies given by VCTs;
iii. To pay large dividends. VCTs have since 2014 been forbidden from returning cash to investors within three years, but the capital-weighted average a dividend yield for VCTs is over 8% (source: AIC statistics 30 September 2016). This is far higher than most equities or equity funds.

[15] The principal objectives are listed as: provide a full exit for Shareholders in approximately six years; pay a regular annual dividend; reduce the risks normally associated with venture capital investments; maintain VCT status to enable Investors to benefit from 30% income tax relief on investments as well as tax free income and capital gains. (Source: Puma VCT 12 PLC Offer for Subscription, October 2015)

[16] This incentive was dramatically illustrated by the use of Share Repurchase and Re-Issue Programmes ("enhanced buyback schemes"). From around 2011 increasing numbers of VCTs started to use these schemes, under which the fund would buy back its own shares from shareholders, and issue "New Shares" in their place. Investors would then claim a new 30% income tax relief on the amount that they subscribed to these new shares. This practice clearly undermined the objective of the VCT scheme of raising additional capital for the sector, and these schemes were outlawed with effect from April 2014.

[17] DPV2 fund prospectus (2013): "It is intended that the focus will be on investee companies that: (i) trade from freehold premises (e.g. health clubs, children's nurseries, etc). These types of businesses provide a level of protection compared to companies with no tangible assets."

These incentives make the VCT scheme a leaky bucket. Substantial income tax relief is needed to give an incentive for investors to put their savings into the scheme, but this tax relief also gives funds a very strong incentive to return cash to investors as soon as permitted.

This incentive is particularly unwelcome in the light of more general criticism of the UK financial system for taking excessively short-term decisions (e.g. Kay, 2012). In this context it is perverse that the current tax breaks give VCT managers an additional incentive for short-term investing.

The underlying reason for the poor market liquidity all derive – directly or indirectly – from the 30% income tax relief, and the 5 year minimum holding period which has been imposed to prevent investors from recycling this tax break (claiming the relief then rapidly selling the assets and re-subscribing to claim further relief). The need to keep issuing new shares that are eligible for income tax relief has also encouraged the fragmentation of the VCT industry into many very small funds and equity classes (as shown in the Annex and in Table 3). In addition to further reducing liquidity, this fragmentation reduces the transparency of the VCT sector and may increase funds' average costs. Possible reforms of the scheme, discussed in the following section, focus on removing this upfront subsidy, thus allowing VCTs to be structured in ways that are much more investor-friendly. This should allow substantial inflows to be attracted at greatly reduced Exchequer cost.

7. Options For Reform

The challenge is to direct funds into the VC sector at a lower Exchequer cost. At the moment a very high (near 100%) level of tax subsidy is used to encourage a very small number of (generally very rich) investors to subscribe to VCTs which currently have very undesirable characteristics. A more cost effective solution could involve:

- Increasing the attractiveness of VCT shares by making them more liquid;
- Encouraging participation by a much wider spectrum of investors than the current 13,420 VCT subscribers per annum;
- Using behavioural insights to 'nudge' investors using salient and well-designed interventions.

As argued above, a necessary part of reforming the VCT tax regime is to abolish the 30% income tax rebate (whilst keeping the dividends and capital gains tax free, as for ISAs). This would have the following key benefits:

- Greatly reducing the tax subsidy, saving around £130m p.a. (30% of the total subscribed, which is currently £435m);
- Secondary market liquidity would be improved by removing (i) the five year minimum holding period; (ii) the perverse incentive for fund managers to each run a number of small (and often limited life) VCTs rather than a single larger and more liquid fund. As noted above, this might also result in lower administrative costs, greater transparency and better corporate governance.

The current illiquidity of VCT shares is likely to deter many investors. This seems the best explanation for the very small number of investors subscribing to VCTs despite the current very large tax breaks. The abolition of the 30% income tax relief would leave VCTs with the same tax advantages as ISAs (i.e. tax free dividends and capital gains), but liquidity would improve.

In 2013/14 1.2 million investors saved the maximum allowable amount in equity or combined cash/equity ISAs (£11,520). With such large numbers investing the maximum, there appears to be significant unmet demand for an ISA-like product which offers similar tax subsidies. If just 9% of these investors subscribed an additional £4000 to a reformed VCT scheme then this would raise the same amount that VCTs currently attract even with their far greater tax breaks (£435m in 2014/15). The attractions of VCTs could be captured in the simple message: "Maxed out your ISA? You can obtain the same tax advantages by investing in VCTs".

ISA and VCT schemes have been in operation for roughly the same amount of time, but they have evolved separately. The massive success of ISAs means that ISA providers have become the "gatekeepers" to a large proportion of retail savings flows. One option for reforming VCTs would be to aim to nudge even a small proportion of this ISA flow into a slightly different choice of underlying assets. This could potentially achieve the objectives of the VCT scheme at greatly reduced exchequer cost. Most ISA investors choose cash ISAs (£58.8bn, i.e. 73% of the amount subscribed in 2015/16). A substantial intervention is likely to be required to

encourage these investors to put the savings into VCT assets instead. However, £21.4bn was subscribedto stock/share ISAs. Much more limited intervention is likely to be required to encourage these investors into VCTs, since they are clearly already comfortable with investing in financial assets. Nudging just over 2% of this flow into venture capital would match the achievements of the VCT scheme.

This raises the question of whether investing in VCTs is considered appropriate for small retail investors. We might consider imposing an upper limit of, say, £4,000 per annum on VCT subscriptions, since this:

(a) Would avoid the possibility of some investors concentrating too much of their total savings in a single risky asset class (as noted above, there is plenty of evidence that retail investors tend to be overconfident and underdiversified);

(b) May increase the attractiveness of this investment by making subscribing an easier decision. With no upper limit, subscribers must make the difficult choice of how much to invest in VCTs — taking away some of this choice makes it a much easier decision (see Iyengar & Lepper 2000 on the deterrent effect of excess choice). By contrast, taking maximum advantage of a tax-subsidised scheme with a tight upper limit might seem much more of a "no-brainer" decision for investors;

(c) Would make the total annual subscription flow into VCTs more predictable. There might otherwise be a risk of a reformed VCT scheme generating massive flows that existing VCT managers struggle to invest in suitable schemes.

Some of the attraction of VCTs could be non-financial (e.g. "your chance to invest in innovative UK start-ups" — some VCTs already make this point). Beyond this, incentive fees for ISA providers to publicise VCTs (analogous to current 5% IFA fees currently paid by some VCT subscribers) might be considered.

If additional tax subsidy is considered appropriate there are ways to achieve this without the distortions that result from the current 30% income tax relief. These incentives could be designed with behavioural factors in mind in order to maximise cost-effectiveness. For

example, a government top-up of (say) 2% on VCT subscriptions could be an effective additional incentive, since:

- It imposes no additional frictions, since the top-up could be automatic (by contrast, subscribers currently need to claim VCT relief separately on their income tax returns);
- This intervention would be most effective if it came at a *salient* point in the decision-making, when investors are already choosing an investment vehicle for their savings. Indeed if investors find it difficult to decide which type of fund to choose then a small but transparent additional incentive may make VCTs an easy choice;
- Recycling of this tax incentive is unlikely to be a problem, since selling out and reinvesting in another fund is likely to cost more than 2% in transaction costs. This prevents the need for any minimum holding period (such as the existing five years required to prevent recycling of the current 30% income tax relief).

In sum, the removal of the current 30% income tax relief appears to be a necessary part of reform. Once this has been achieved, there are plenty of options for fine-tuning the incentives given by the scheme.

8. Issues For Further Research

This paper has deliberately addressed a tightly-defined question: whether there is a more efficient way to provide the capital flows into venture capital that are currently achieved by the VCT scheme. An alternative response to the high cost of the current scheme would be abolition rather than reform. This would require an investigation of the track record of returns achieved by VCTs. However, such an investigation might be inconclusive since:

- Estimates of the average returns previously achieved by VCTs may be affected by reporting biases in the databases (this is found to be a major effect in research on hedge funds), and in any case it is not clear how informative this would be, since we know that the period since the turn of the century has seen unprecedentedly poor equity returns in many markets. Thus it is not clear whether this track record should be taken as representative of what should be expected in future;

- The rationale for supporting VC is sometimes ambiguous, including both a belief that failures in the capital markets prevent funding from reaching projects that on average would generate acceptable rates of return (the venture capital gap) and a belief that VC projects have beneficial knock-on effects (externalities) on the economy even if the projects themselves offer low returns;

- The past track record has shown little political appetite for reducing support for venture capital. As noted earlier, government schemes that have been found to underperform badly have been reformed rather than abolished.

Another possible concern is the quality of corporate governance among VCT funds. These compete for subscriptions, but the lack of a liquid secondary market means that investors are typically locked in for the life of the fund and are so unable to "vote with their feet" if they object to the policies followed by the fund. Furthermore, these shareholders are retail investors who may lack experience, and the VCT sector lacks the role played in other parts of the fund management industry by activist institutional investors who challenge fund actions that do not appear to be in shareholders' interests.

Another area that could usefully be investigated further is the fees received by VCT managers. These are not entirely transparent, since they take multiple forms and are often linked to performance. As we saw above, as long as cash is returned to investors quickly, funds' track records may look attractive despite high levels of fees or poor performance of the underlying assets. A full investigation of VCT fund costs is beyond the scope of this paper, but:

(i) AIC records ongoing charges averaging 3% of assets per annum excluding performance fees, 3.2% including these fees (unweighted average);

(ii) Initial subscription fees are around 4-5%, mainly intended to give substantial commissions to independent financial advisers (IFAs). These commissions may give IFAs a perverse incentive to direct clients' funds to high commission VCTs rather than those with low fees and good performance. However this problem would not be unique to the VCT sector.

The private equity industry is similar to VC in having illiquid and hard-to-value assets (indeed many consider VC to be a subset of PE). Phalippou (2009) documents substantial fees hidden

in the details of PE contracts: "The average private equity buyout fund charges what amount to 7 percent in fees per year, despite an average return for investors below that of the S&P500. The compensation contract for a buyout fund, at first sight, typically implies lower fees than will actually occur. The larger fees are generated by what seem like minor details in these contracts".

A similar investigation of total VCT costs and fees is difficult, precisely because these are not transparent. However, there are indications that total fees can be large:

> "Most VCTs come with management fees of 2-3% a year. They also have initial charges of about 5%, though platforms may discount some of this. Then there are 'normal annual running costs'. Add up the management costs and the other 'normal' costs and it can come to 3.5%. Next there are 'arrangement fees'. You may think that arranging investments should be covered by the annual management charge, but it isn't. There is a fee of something like 2% for each investment actually made. You get the picture. Over five years, all this is going to eat up close to the 30% you saved on income tax." (Financial Times, 17 Feb 2014).

The issues raised in this section are beyond the scope of this paper. But lack of information on these topics does not interfere with the central point of this paper: that the scheme does not appear to be cost-effective, as shown by (a) the high exchequer cost per additional pound invested; and (b) the very small number of investors attracted to the scheme despite its large tax subsidies.

Conclusions

This paper concludes that the cost-effectiveness of the current VCT scheme is poor, since it costs around £1 in tax subsidies per additional £1 invested in start-ups. However, there is scope for reforming the scheme to make it more attractive to investors even with reduced tax breaks. This should allow a reformed scheme to attract a similar flow of funds into VCTs, but at far lower Exchequer cost.

Despite the current large tax breaks, very few taxpayers subscribe to VCTs (only 13,420 in 2013/14). The main reason for this appears to be that VCT shares are almost entirely illiquid. This illiquidity is an unintended consequence of the tax subsidies which require a five year minimum holding period, and also encourage the fragmentation of VCT funds into very small share classes.

Removing the 30% income tax relief would leave VCTs with only the tax breaks currently given to ISAs (saving £130m p.a.) but would open the scheme up to those deterred by current frictions and illiquidity. There is evidence of significant unmet demand for such schemes: 1.2 million investors already save the maximum permitted annual amount in equity or combined cash/equity ISAs.

The current income tax relief also gives VCT fund managers a strong incentive to return cash to investors as soon as possible. This is counterproductive given more general criticisms of short-termism in the financial sector.

Once the problems caused by the immediate income tax relief are removed, there are many options for adjusting the incentives given by the VCT scheme, and behavioural insights can be used to further improve its cost-effectiveness. For example, nudging even a very small proportion of annual ISA flows into venture capital could match the achievements of the current VCT scheme at greatly reduced cost.

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Venture Capital Trusts

	Assets (£m)	Charge (% p.a.)
Albion Development VCT	44	2.8
Albion Enterprise VCT	42.9	2.9
Albion Technology & General VCT	65.9	2.8
Albion VCT	55.5	2.4
Amati VCT	38.3	2.4
Amati VCT 2	36.9	2.6
Artemis VCT	35.5	2.2
Baronsmead Second Venture Trust	155.1	3.0
Baronsmead VCT 5	46.5	3.2
Baronsmead Venture Trust	166.2	3.2
British Smaller Companies VCT	96.2	3.4
British Smaller Companies VCT 2	59.5	2.3
Calculus VCT	1.5	7.1
Calculus VCT C shares	1.5	6.0
Calculus VCT D shares	1.8	N/A
Chrysalis VCT	24.1	2.8
Crown Place VCT	40	2.7
Downing FOUR VCT 2011 General shares	15.6	2.9
Downing FOUR VCT 2011 Low Carbon shares	3.3	2.9
Downing FOUR VCT 2011 Structured shares	11.9	2.9
Downing FOUR VCT B shares	3.7	2.7
Downing FOUR VCT D shares	6	2.7
Downing FOUR VCT DP67 shares	6.8	4.1
Downing ONE VCT	94.1	2.7
Downing THREE VCT C shares	1.6	2.6
Downing THREE VCT D shares	3.6	2.3
Downing THREE VCT F shares	7.5	2.9
Downing THREE VCT H shares	11.8	2.6
Downing THREE VCT J shares	10.6	N/A
Downing TWO VCT C shares	1.7	2.5
Downing TWO VCT D shares	3.5	2.1
Downing TWO VCT F shares	7.5	2.8
Downing TWO VCT G shares	18.9	2.8
Downing TWO VCT K shares	13.1	N/A
Edge Performance VCT C shares	0.4	3.9
Edge Performance VCT D shares	4.8	2.5
Edge Performance VCT E shares	3.1	2.5
Edge Performance VCT F shares	10.3	2.9
Edge Performance VCT G shares	12.3	2.6
Edge Performance VCT H shares	7	3.6
Edge Performance VCT I shares	9.2	2.8
Elderstreet VCT	25	5.0
Foresight 3 VCT	28.7	3.2
Foresight 4 VCT	42	4.1
Foresight Solar & Infrastructure VCT	38.6	2.2
Foresight Solar & Infrastructure VCT C shares	10.2	3.2
Foresight Solar & Infrastructure VCT D shares	2	N/A
Foresight VCT	105	3.4
Foresight VCT Infrastructure shares	29.6	1.5
Foresight VCT Planned Exit shares	4.9	2.0
Hargreave Hale AIM VCT 1	44.9	2.4
Hargreave Hale AIM VCT 2	34.6	1.5
Hazel Renewable Energy VCT 1	28	2.5
Hazel Renewable Energy VCT 2	28.5	2.5
Hygea VCT	6.1	8.4
IBIS Media VCT 1	5.6	6.3
Ingenious Entertainment VCT 1 D shares	0.1	5.1
Ingenious Entertainment VCT 1 E shares	1.2	3.6
Ingenious Entertainment VCT 1 F shares	0.7	3.9
Ingenious Entertainment VCT 1 G shares	2.2	3.8
Ingenious Entertainment VCT 1 H Shares	2	3.7
Ingenious Entertainment VCT 2 D shares	0.1	5.1
Ingenious Entertainment VCT 2 E shares	1.2	3.6
Ingenious Entertainment VCT 2 F shares	0.7	3.9
Ingenious Entertainment VCT 2 G shares	2.2	3.8
Ingenious Entertainment VCT 2 H shares	2	3.7
Iona Environmental VCT	3.5	4.8
Iona Environmental VCT B shares	0.7	4.8
Kings Arms Yard VCT	44.3	3.1
Maven Income and Growth VCT	35.6	2.8
Maven Income and Growth VCT 2	20.8	6.5
Maven Income and Growth VCT 3	35.9	3.2
Maven Income and Growth VCT 4	33.7	5.3
Maven Income and Growth VCT 5	31	3.3
Maven Income and Growth VCT 6	17	4.2
Mobeus Income & Growth 2 VCT	39.8	2.8
Mobeus Income & Growth 4 VCT	53.4	2.7
Mobeus Income & Growth VCT	70.3	2.6
Neptune-Calculus Income & Growth VCT	4.3	3.0
New Century AIM VCT	7.4	1.6
New Century AIM VCT 2	3	2.2
Northern 2 VCT	65.4	3.2
Northern 3 VCT	63.7	3.3
Northern Venture Trust	70.5	3.1
Octopus AIM VCT	87.6	2.3
Octopus AIM VCT 2	57.6	2.5
Octopus Apollo VCT	138	4.1
Octopus Eclipse VCT	32.3	2.8
Octopus Titan VCT	309	4.3
Octopus VCT 3	6.4	2.3
Octopus VCT 4	6.4	2.5
Oxford Technology 2 VCT	1.9	3.4
Oxford Technology 3 VCT	6	2.8
Oxford Technology 4 VCT	7.5	1.6
Oxford Technology VCT	3.3	2.7
Pembroke VCT	20.4	2.4
Pembroke VCT B shares	11.6	N/A
ProVen Growth and Income VCT	72.7	2.5
ProVen VCT	99.3	6.5
Puma VCT 10	25.2	2.9
Puma VCT 11	29.4	4.4
Puma VCT 12	37	N/A
Puma VCT 8	9.9	3.4
Puma VCT 9	24.2	2.0
Puma VCT VII	9.6	3.6
The Income & Growth VCT	70.8	3.7
Triple Point Income VCT	13.2	1.9
Triple Point Income VCT C shares	14.5	2.4
Triple Point Income VCT D shares	14	2.4
Triple Point VCT 2011	7.2	3.5
Triple Point VCT 2011 A shares	10.1	2.7
Triple Point VCT 2011 B shares	6.8	N/A
Unicorn AIM VCT	147.8	2.2
Ventus 2 VCT	19.1	3.4
Ventus 2 VCT C shares	13.8	3.2
Ventus 2 VCT D shares	2.6	2.7
Ventus VCT	18.9	3.3
Ventus VCT C shares	13.7	3.3
Ventus VCT D shares	2.6	2.9