PATIENT CAPITAL REVIEW

Industry Panel Response

October 2017

Secretariat support from:

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Introduction from the Chair

In November 2016, I was invited by the Prime Minister to lead an independent industry panel of entrepreneurs, academics and investment professionals to support the Government's Patient Capital Review into the availability of long term finance for growing UK firms. The Panel has helped to define the key themes for the review's consultation and here provides a package of recommendations as a formal submission to the Government's consultation.

In recent years, the UK has made great strides in growing a vibrant start up ecosystem spanning a broad range of sectors across all regions. However, it is also clear that the challenges faced by high potential businesses seeking to scale up are substantial. In particular, accessing long-term, patient finance is difficult in the UK's under-developed and fragmented ecosystem. If left unaddressed, this will continue to stifle the rich pipeline of UK start-ups coming to fruition and will see the UK lose out on the jobs, skills development, talent, technological know-how and other economic benefits they could provide. While the ultimate aim should be for the UK market to grow and mature to a point where patient finance is delivered by the private sector, government action is required to kick-start this development.

The Panel has sought to develop a short set of strong, implementable and targeted solutions at scale, addressing three specific areas: unlocking institutional and retail investors' capital, increasing the number of venture capital (VC) funds that can deploy patient capital at scale, and increasing returns to scale-up investments. We believe, if implemented collectively by the Government, the package of measures described in this response could transform this key element of the UK's scale up ecosystem and at the same time be more than capable of addressing any gap in funding that may arise from the withdrawal of EIF funds following the UK's departure from the European Union. Furthermore, post-Brexit, these initiatives would drive GDP growth by supporting the most innovative businesses across the whole country, ensuring that they have the opportunity to remain in the UK and develop into world leading companies.

This package of recommendations articulates the consensus view of the Industry Panel. The Industry Panel met in February, April and September 2017 to discuss the review and was supported by comprehensive research drawing on international examples, extensive data sources and broad stakeholder engagement by the Panel's Secretariat.

The recommendations from this Review seek to address existing challenges concerning the supply of capital. However, beyond this response, we would also urge Her Majesty's Treasury to ensure that complementary work being undertaken across Government – including the work of Sir John Bell in leading the Government's Life Sciences Industry Strategy, the Council for Science and Technology's review into the role of public markets in helping the UK's science and technology companies to grow, the Scale-Up Taskforce and the Entrepreneurship Review – together feed into building a holistic and actionable strategy for creating a strong environment to bolster the success of UK-based innovative growth companies.

I am extremely grateful for the hard work of the Industry Panel and the Secretariat which has been generously provided by Clifford Chance, EY, L.E.K. Consulting, McKinsey & Co, and Wellcome.

Sir Damon Buffini

Industry Panel Members:

- **Sir Damon Buffini** (Chair)
- **Lucy Armstrong**: CEO, *The Alchemists*
- **Juliet Davenport OBE**: CEO & Founder, *Good Energy*
- **Kym Lynn Denny**: CEO, *hVIVO PLC*
- **Tim Hodgson**: Head, *Thinking Ahead Group* and Founder, *Thinking Ahead Institute*
- **Tay Lim Hok**: Deputy Group Chief Investment Officer/President, *GIC Europe*
- **Dr. Mike Lynch OBE FRS, FREng**: Founder, *Invoke Capital*
- **Dr. Fiona Marshall FmedSci:** Chief Scientific Officer & Co-founder, *Heptares Therapeutics*
- **Ambarish Mitra**: Founder and CEO, *Blippar*
- **Professor Fiona Murray**: Professor of Entrepreneurship, *MIT Sloan School of Management*
- **Sara Murray OBE**: CEO & Founder, *Buddi*
- **David Norwood**: CEO, *Oxford Sciences Innovation plc*
- **Stuart Paterson BA, CA, MBCS:** Partner, *Scottish Equity Partners*
- **Nikhil Rathi**: CEO, *London Stock Exchange Plc*
- **Tim Score**: Former Finance Director, *ARM*
- **Stephen Welton**: CEO, *Business Growth Fund*
- **Gervais Williams**: Senior Executive Director, *Miton Group plc*
- **Dr. Nigel Wilson**: Group CEO, *Legal & General*
- **Neil Woodford CBE**: Founding Partner, *Woodford Investment Management*

Executive Summary

The UK entrepreneurial ecosystem provides significant financial support at the earliest stages of starting a business. However, our scale-up performance is not as strong, and continues to lag behind the US

- The UK is, in many respects, a great place to start and grow a business. In recent years, successful government policy interventions such as the Enterprise Investment Scheme (EIS) and Venture Capital Trusts (VCTs) have helped develop a thriving start-up community.
- However, opportunities remain for improvement across the ecosystem, particularly with respect to the transformational development of some of these start-ups into large-scale businesses, where the proportion of UK start-ups which scale into large businesses lags significantly behind the US. This indicates that many UK-based businesses are unable to reach their full potential and either remain "stuck" in a mode of incremental growth, or accept a trade sale as the most convenient exit, both of which are ultimately to the detriment of the UK economy, tax receipts and job creation.
- The Panel's vision is that every great entrepreneurial management team will be able to obtain the finance it needs in the UK to develop their ideas into major global businesses.

The lack of patient capital is a significant impediment to UK entrepreneurs' success

- One major challenge for growing businesses aiming to reach scale is a lack of available "patient capital". The Panel observes three areas of opportunity to increase the current supply of £3bn p.a.: providing larger cheques to scale-ups already receiving funding; addressing some of the latent and unsatisfied demand for financing from the best high-growth businesses; and providing large-scale investment to highly ambitious capital-intensive businesses, such as university spin outs. The total opportunity across these areas is collectively of the order of billions of pounds annually, estimated at £3-6bn p.a.
- The lack of capital availability forms one part of a negative feedback loop, together with historically low returns for venture investments, and low attractiveness of the UK market to top talent. This loop has historically suppressed scale-up opportunities. The Panel considers that correcting any single aspect of the loop has the potential to generate positive feedback.

The Panel proposes three actionable initiatives to make a substantial impact on the problem

- The Panel proposes three specific initiatives to transform the patient capital landscape in the UK, designed specifically to address the problems of capital availability and low returns.
- **Creating a Patient Capital Investment Vehicle (PCIV):** the PCIV would enable the aggregation and deployment of both retail and institutional capital for investment in UK scale-up businesses and capital-intensive R&D-based businesses. It would invest c.£1bn annually, primarily in UK venture capital funds and other investors in high growth businesses, catalysing an additional c.£2bn of private investment by providing up to only 30% of the equity capital. This vehicle would be a new entity, independent from the UK Government, but with a Government-defined mandate, and including some Government investment to signal strategic intent and stability. In order to attract institutional capital, investments in the PCIV might receive a favourable capital treatment, similar to the PRA's treatment of banks' investments in the Business Growth Fund (BGF).
- This proposal specifically targets the **lack of capital availability**, particularly beyond the current EIS and VCT threshold.

- **Creating a UK "Patient Capital Investment Company" (PCIC) programme:** modelled on the US SBIC debenture programme, UK PCICs would be private (VC) funds licensed by the British Business Bank (BBB) to raise funds from commercial lenders through a BBB-guaranteed debenture, alongside equity capital. The debenture would be first secured on fund assets as a whole, to minimise any exposure from the guarantee to the BBB. The US SBIC programme operates at a net cost of zero to the US government. This programme would support the annual deployment of c.£600m of debentures to improve the returns profile of UK venture investments, incentivise greater deployment of capital for venture, and catalyse the development of the UK venture community.
- This proposal specifically targets the **historically low returns for venture investments**.
- **Extending the investment limits for existing EIS and VCT schemes:** The popularity of these schemes has contributed significantly to the development of a vibrant UK start-up scene. However, the hard limits on investment size create inefficiencies as businesses transition away from tax incentivised investment, particularly due to the inability of Angels and VCTs to provide follow-on funding. To minimise this impact, the limits could be extended or removed, smoothing the transition from EIS / VCT funding to venture and raising up to an additional £1bn. Amongst a range of options available to government, these changes could focus on Knowledge Intensive Companies, to target the types of business that have the greatest need for patient capital. To minimise the cost to government, a new "Growth EIS or VCT" with a reduced level of tax saving could be created.
- This proposal targets the **lack of capital availability,** particularly at the boundary of the existing EIS and VCT threshold.

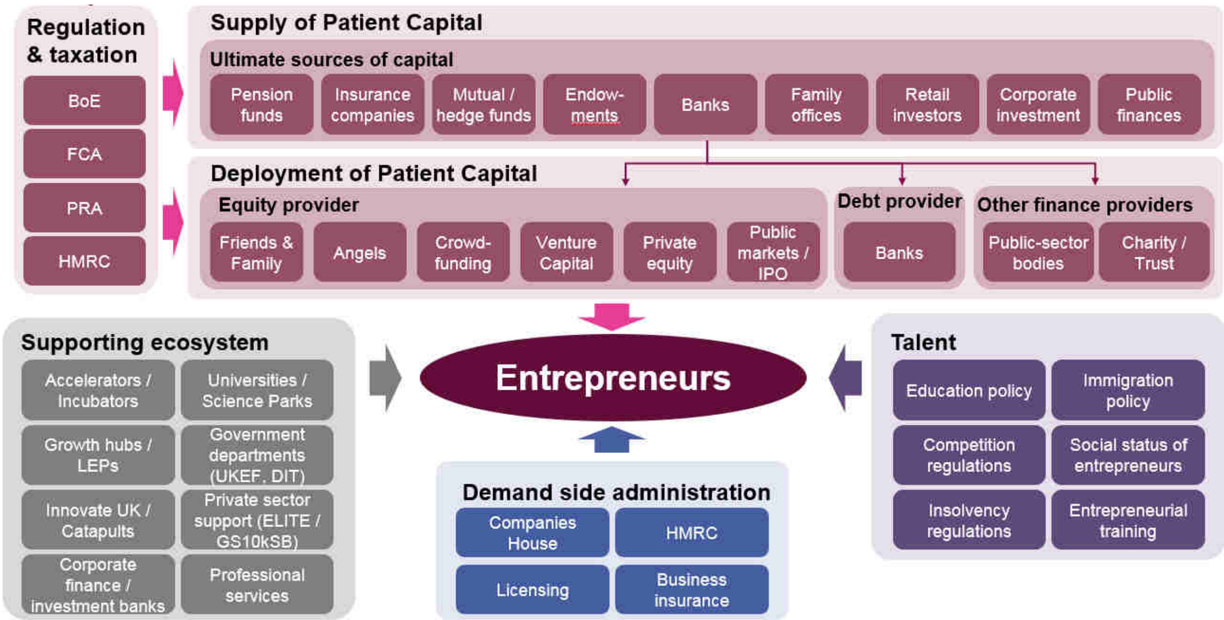
These initiatives should be deployed together to deliver a transformational impact on the UK

- The collective implementation of these initiatives would have a substantial impact on the UK economy, catalysing the development of large businesses in the UK, increasing jobs and boosting GVA, all at little to no cost to the government (limited to the stake taken within the PCIV).
- These initiatives would provide strong incentives for all stakeholders: increasing the ease of investing in patient capital for institutional and retail investors, and increasing the attractiveness of available capital to existing VC and other patient capital funds. They would also increase the appeal of the UK market for world class talent and global VC investors, helping drive positive feedback within the loop.
- To achieve the desired transformational impact on the supply of patient capital, and, most importantly, the entrepreneurial ecosystem as a whole in the UK, the Panel strongly recommends that these initiatives be implemented in combination, rather than, for example, "front-running" one of them.

1. The Patient Capital Opportunity

Summary: *The UK entrepreneurial ecosystem has many strengths, particularly at the earliest stages of starting a business where UK government policies provide substantial support. However, a lack of capital availability, as a result of the historically low returns from venture investments and the resulting lower attractiveness of the UK for world class venture talent, significantly constrains the number of businesses able to scale to their full potential. The size of the opportunity to deploy additional patient capital depends on the scale of ambition we have for the UK. While the UK is already more successful than many of our European peers, it falls well short of the US, and the Panel believes that there is a substantial opportunity to strengthen the UK further as a place for growing businesses to obtain the long-term patient finance they need to scale up.*

Figure 1: Entrepreneurial ecosystem



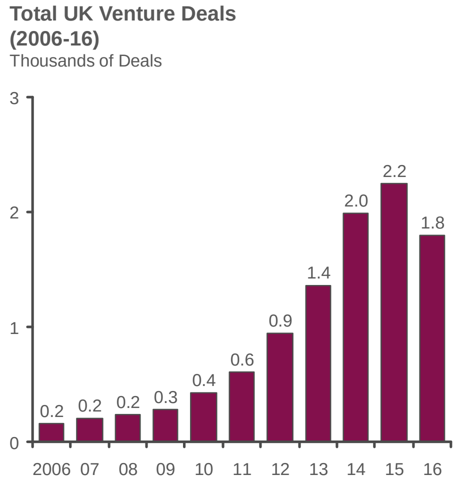
1.1. The UK is, in many respects, a great place to start and grow a business. In recent years, successful government policy interventions, allied to a stable and growing economic environment, have helped develop a thriving start-up community with more businesses being started than ever before and an increasingly active venture investor base (Figure 2). In addition, the UK's high density of world-class universities lead the way in developing new and innovative IP with high commercial potential that will form the basis for businesses of the future.

1.2. However, opportunities remain for improvement across the ecosystem, particularly with respect to the transformational development of some of these start-ups into large-scale businesses, where the proportion of UK start-ups which scale into large businesses lags significantly behind the US. As a result, many UK-based businesses are unable to reach their full potential. This situation must improve, and presents a significant opportunity for the UK economy.

1.3. The benefits to the UK economy could be substantial. Analysis conducted by RBS for the 2014 Scale-up Report concluded that a 1% shift of all businesses with over 10 employees from a stable into a high-growth state would create 238,000 jobs and almost £39 billion in additional turnover after three years.

1.4. The Patient Capital Review's focus is on the supply of long-term capital to both successful start-ups looking to reach large scale, and capital-intensive R&D based businesses, such as those spun out of universities.

Figure 2: Growth in UK Venture (Pitchbook)



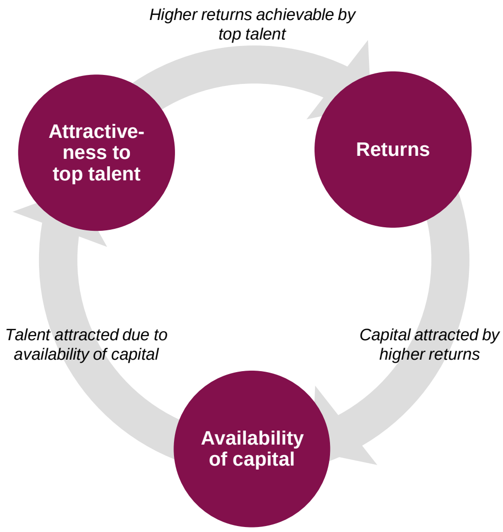
1.5. The Panel observes that there is insufficient capital to match entrepreneurs' demand and the majority of existing capital is concentrated within London which can limit opportunities for those entrepreneurs outside of the capital. It is therefore particularly difficult for businesses outside London and the South East to access the capital they require to scale up.

1.6. Furthermore, too little of this capital is available to make the long-term, larger investments required to scale a business. This is a particular problem for companies requiring more than £5m in equity investment.

1.7. The Panel's vision is that every great entrepreneurial management team will be able to obtain the finance it needs in the UK to develop their ideas into major global businesses.

1.8. The lack of capital availability forms part of a feedback loop, together with historically poor returns from venture investments, and the low attractiveness of the UK for world class venture talent (Figure 3). At present, each aspect of the loop is providing negative feedback. Returns have been subdued, partly due to lack of scale and patience in VC investments and partly due to lack of deep sector and technology specific expertise in the investment community. This in turn has resulted in capital availability remaining low.

Figure 3: Patient Capital Feedback Loop



1.9. A material improvement to the availability of patient capital therefore has the potential to generate positive feedback within this loop and could bring the ecosystem into an improved equilibrium. The development of the UK's world-class private equity industry in the 1990s from similar circumstances provides a powerful example of how an increase in availability of capital had a profound impact on both the presence of top talent in the UK and returns.

1.10. At present, c.£3bn of equity investment is deployed to scale-up businesses annually within the UK, although not all of this is patient in outlook. Of this, almost £400m is contributed by the European Investment Fund (EIF) and might be at risk following the UK exiting the European Union (EU). The vast majority of this funding is matched with private sector capital, and therefore the potential shortfall could be even greater if this money is also withdrawn from the market. Government intervention may therefore be required to fill any gap left by the possible withdrawal of EIF funds.

1.11. The Panel observes three areas in which there is an opportunity to improve the UK ecosystem and increase this supply with more patient capital, collectively of the order of billions of pounds annually:

- Provide larger cheques to scale-ups already receiving funding, in order to help them grow quickly, with less time spent raising capital and less pressure to exit early;
- Address some of the latent and unsatisfied demand for financing from the best high-growth businesses which will generate economic growth and productivity gains. The Panel estimates there is demand for an additional £3-6bn p.a. from this group; and
- Provide large-scale investment to highly ambitious capital-intensive businesses with a long product development cycle, such as science spin-outs from universities.

1.12. Addressing this opportunity requires unlocking institutional and retail investors' capital, and increasing the number of large venture capital funds which can deploy capital at scale and across multiple long-term investments. New capital needs to be deployed in addition to EIS / VCT incentivised capital, which has proven highly successful in stimulating the development of new UK-based start-ups, but with less impact on scale-ups.

1.13. The size of the opportunity to deploy additional patient capital depends on the scale of ambition we have for the UK. The UK already exceeds many of our European peers, but falls well short of the US, and we believe that there could be substantial opportunity even beyond US levels (relative to GDP).

2. Patient Capital Investment Vehicle

Recommendation: *The Panel recommends the creation of a Patient Capital Investment Vehicle that would enable the aggregation and deployment of capital at scale for UK scale-up businesses and capital-intensive start-ups.*

Barriers to investment in Patient Capital

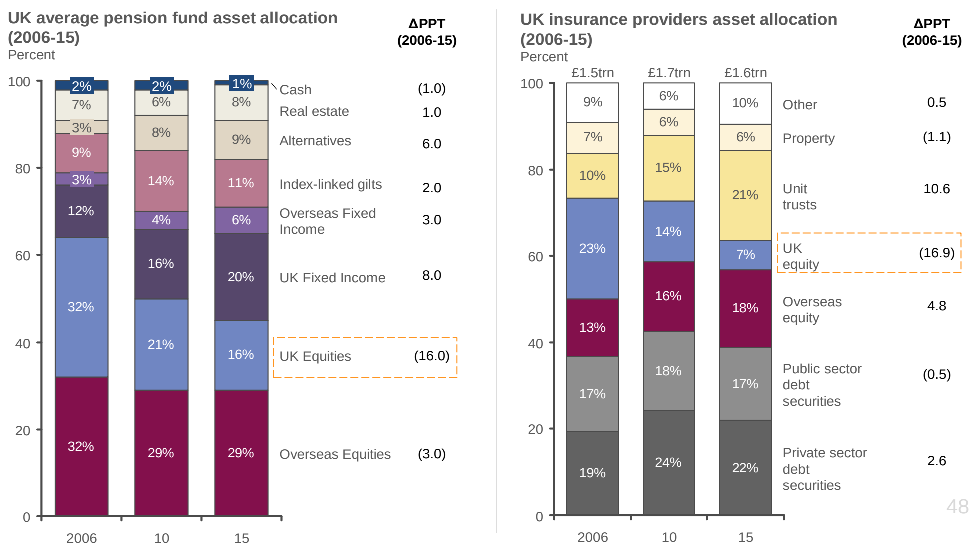
2.1. The proportion of investable capital in the UK allocated to venture investments is currently very small. Only a small increase in venture allocation would have a significant impact on the overall availability of capital for high-growth innovative businesses. Moreover, given the long-term outlook of most institutional investors, the provision of patient capital should match their objectives well, assuming the right returns.

2.2. However, institutional investors currently allocate most of their capital to listed (and therefore liquid) assets, with a lower equity exposure compared to a decade ago. Only a small percentage is allocated to “alternatives”, of which a smaller proportion still is allocated to venture. This takes place within a broader ongoing trend of “de-equitisation” by investors in the UK (Figure 4).

2.3. The Panel observes four main reasons for the low level of venture allocation by domestic and international institutional investors:

- The UK has too few large VC funds. Venture funds of <£200m AUM are generally not desirable for large institutional investors, who typically aim for much larger investment sizes. For example, RPMI Railpen’s VC investments are predominantly with international funds of £300-450m AUM;
- Historically low returns from the asset class, particularly on a risk-adjusted basis, combined with high capital charges imposed by regulators on investments in illiquid assets, often make venture investments uneconomical for many institutional and family office investors, both in the UK and internationally;
- The UK pensions market is heavily fragmented relative to other G7 nations, (e.g., Canada), with few very large pension funds[1]. Smaller pension funds find it difficult to justify building in-house venture investing expertise alongside the relevant governance and oversight capability, given the relatively small asset allocation; and
- Pension funds with a poor asset / liability funding position and / or a weak covenant from the employer are less able to invest in risky or illiquid assets. This is the case for many UK pension funds, accounting for a significant proportion of all pension assets.

Figure 4: Asset allocations by UK pension funds and insurers[2]



2.4. The Panel’s perception is that there is plenty of interest from retail investors in patient-capital-type investments. However, the regulatory treatment for retail capital is even more tightly constrained than for institutional capital. As non-sophisticated investors, regulation is focused on protecting investors’ capital, and ensuring any investments made are suitably

[1] Some work is already underway to partially improve this situation. Since 2014, HMT has been working to create up to six British Wealth Funds, each with at least £25bn of assets, to enable local pension funds to share administration and reduce investment costs. This could provide greater opportunity for prospective investment in patient capital, if supported by a suitable investment environment.
[2] Sources: ABI, *UK Insurance & Long-Term Saving: Key Facts* (2016); UBS, *Pension Fund Indicators* (2016).

liquid. This restricts retail investors from making patient-capital-type investments, which are typically highly illiquid. Retail investors' exposure to investing in scale-ups and science-based start-ups is therefore mostly limited to VCTs and EIS, and a small number of specialist retail offerings such as Woodford Patient Capital Trust.

2.5. While retaining regulatory protection for retail investors, the Panel recommends that greater opportunity should be given to allow them to share in wealth generation by UK scale-up and science-based start-up businesses.

Creating a Patient Capital Investment Vehicle (PCIV)

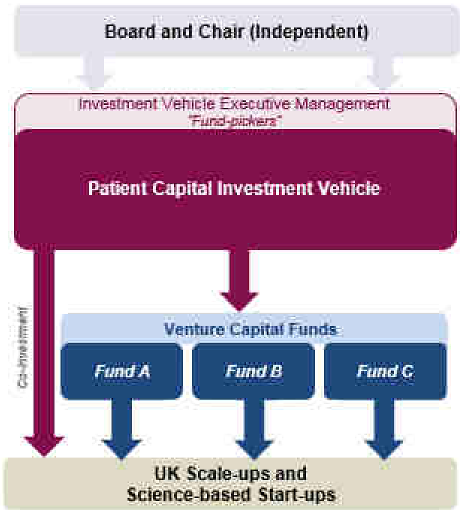
2.6. The Panel believes that a Patient Capital Investment Vehicle (PCIV) would be the most effective solution. This vehicle would enable institutional capital to be aggregated for investment in UK venture, addressing the fragmentation and economy of scale problems faced by institutional investors. The vehicle could provide greater opportunity for retail investors, through the management of dedicated investment trusts. These could be accessed via Defined Contribution (DC) pension plans or Self-Invested Personal Pensions (SIPPs), as stand-alone investments, or as components in a stocks and shares ISA.

2.7. The PCIV would be a "Development Fund" responsible for the allocation of capital to UK scale-ups and science-based start-ups[3], or to private sector actors (such as VC funds) investing in these types of businesses.

2.8. The PCIV would be a legal entity separate from the UK government, with an independent Board (Figure 5) to uphold the vehicle's mandate. However, the UK government would be responsible for defining this mandate and would have board representation. To avoid the PCIV's funds being considered State resources, and therefore subject to state aid rules, the UK government would not have control of the board or any direct or indirect influence over decisions regarding individual investments made by the PCIV. The independent board of the vehicle would need to reflect the diverse interests of its investors in order to represent them most effectively. The board would also be responsible for the appointment of executive management.

2.9. The PCIV mandate should focus on ensuring that UK-based scale-ups and capital-intensive start-ups are the principal recipients of PCIV investment funding.

Figure 5: Patient Capital Investment Vehicle structure



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[3] "Development fund" is a term adopted by the IMF to refer to one of the five types of Sovereign Wealth Funds when categorised by their objectives.

2.10. The PCIV's executive management team would be responsible for selecting the funds it invests in, as well as deciding which co-investment opportunities to pursue. It will be important to select the best talent to lead the organisation, most likely with prior fund-of-fund management experience and capable of managing multiple stakeholders. This could be achieved by selecting an existing organisation to manage the vehicle's investments, or creating a new team with the relevant collective experience.

2.11. The PCIV should possess a broad remit, ensuring investment is made in businesses not only across multiple sectors, but also across the country in order to address the lack of capital available to businesses outside London and the South East. The experience of the Business Growth Fund (BGF), which has made more than 70% of its investments in businesses headquartered outside London and the South East, demonstrates that there are investment opportunities in start-ups across all regions of the UK.

2.12. The Panel observes that the age of a business should not be a qualifying criterion for the PCIV. Transformational growth is not limited to young start-ups, and many older businesses may equally be positioned to achieve breakout scale-up growth. Such businesses would benefit greatly from renewed external investment.

2.13. In order to leverage private capital most effectively and minimise the risk of distorting the UK venture market, the majority of PCIV investments would be made in UK-based VC funds and international VC funds investing in the UK. The PCIV would not be the sole investor in these funds, typically providing up to 30% of the equity capital[4], with the remainder coming from other private investors. In addition, the PCIV would also have the ability to undertake a small number of direct co-investments.

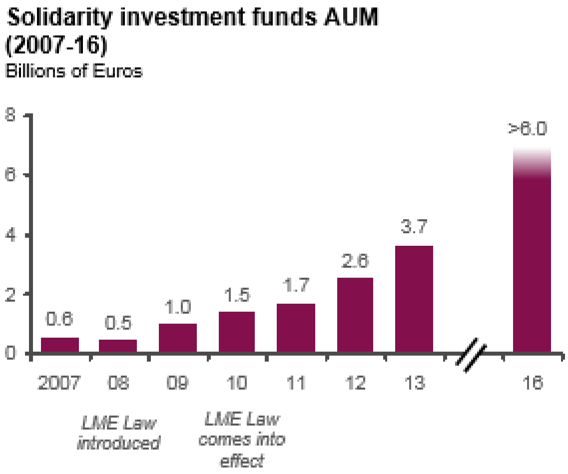
2.14. The existence of the PCIV, coupled with enhanced returns from the proposed PCIC scheme (see *"3. Improved returns through Patient Capital Investment Companies"*, below) would encourage the creation of new funds and managers in the UK market. To accelerate this process, the PCIV might also actively encourage the development of new managers. An increasingly dynamic, competitive VC market would over time help grow the overall returns, size of investment and availability of patient capital in all regions across the UK.

2.15. In order to reduce barriers to invest in this space and to attract institutional capital, investments in the PCIV would benefit from receiving a more favourable capital treatment by the regulators than general illiquid investments. This might be similar to the PRA's treatment of banks' investments in the BGF. In order to avoid prudential regulation concerns, this should only apply for investments up to a small proportion of total invested assets. In addition, an improved returns profile generated through investments in "Patient Capital Investment Companies" would incentivise further institutional investment (see *"3. Improved returns through Patient Capital Investment Companies"*, below).

[4] The proportion of equity capital invested in any company that is regulated by the UK Takeover Code will be subject, among other things, to Rule 9 of the Takeover Code (mandatory bid threshold). The structure and design of the PCIV and the potential for co-investment arrangements should therefore be discussed with the Takeover Panel to understand potential restrictions or investment limitations.

2.16. The Panel believes DC contributions would be the most appropriate means of attracting retail investment, given that they are long term in nature. The Panel would therefore recommend introducing an "opt-in" requirement on new payments into DC pension schemes to attract retail capital into the vehicle. This would require that DC schemes offer members an option to allocate a small proportion of their pension to the PCIV. The intent would be to emulate the successful implementation of the French LME Law in 2008 which mandated that Corporate Employee Savings Schemes must offer a Solidarity Investment Funds option. This resulted in significant growth in the amount of capital allocated to Solidarity Investment Funds from €200m to €6bn between 2002 and 2016 (Figure 6). This approach would require secondary legislation.

Figure 6: Impact of LME Law on Solidarity investment funds (Big Society Capital)



2.17. Further retail investment could be encouraged through a specific higher annual and/or lifetime pensions allowance for investments with the PCIV. Consideration could also be given to removing the taper allowance for high earners who invest in the PCIV. The lifetime pensions allowance currently stands at £1m, reduced from £1.8m in 2011. Given the low interest rate environment, the Panel believes adjusting the pensions allowance for the PCIV would tap into a significant demand. However, any adjustment made for PCIV investments alone would be likely to bring the PCIV's activities within the scope of the state aid rules, and require prior authorisation by the European Commission.

2.18. ISA savers should be able to access the PCIV through existing channels and retail products, as this is likely to be more effective than creating a new retail savings product, not least given the recent launch of the Lifetime ISA and Innovative Finance ISA. This will require the PCIV to set up and manage standard retail vehicles, such as investment trusts.

2.19. The Panel recommends that the UK Government act as a cornerstone investor, leveraging the strength of the "Government" brand. This would signal strategic intent and stability and could help attract initial investment from a range of sources, as well as top investment talent to manage the mandate. To avoid a state aid clearance requirement, Government capital would need to be invested on the same terms as the private capital which comprises the majority of funding[5].

Design features of the PCIV

2.20. Enabling the PCIV to accept and invest capital from both retail and institutional investors is achievable through commonly utilised fund structures. For example, operating an investment trust (Trust), which would be appropriate for retail or institutional capital, alongside an English Limited Partnership (ELP), which would be appropriate for UK

[5] While the UK may not be tied to EU State aid rules after its departure from the EU, some limits on the ability of the UK government to grant market-distorting subsidies will be an inevitable condition of any ongoing trading relationship with the EU.

Government and institutional capital. The Trust and ELP would both be managed by the PCIV and would invest in all of the same underlying entities and funds, proportionally.

2.21. It is crucial that the PCIV is of sufficient scale to be able to address the size of the opportunity. However, if deployed too quickly, the PCIV risks flooding the market while the infrastructure beneath is still too thin to invest the new capital effectively. Conversely, if deployed too slowly, the PCIV would take too long to reach adequate scale. In order to mitigate this risk, executive management would need to stagger new fund raising appropriately. Raising capital of the order of c.£1bn annually ought to be sufficiently large to address the opportunity. This would be managed through the issuing of new shares by the Trust, and further capital raises by the ELP.

2.22. The use of an investment trust as a daily traded instrument could have undesirable consequences, including threats of a takeover and heavily discounted valuations early in the Trust's life at the low point in a "J-curve". In order to prevent risk of takeover, a direct limit could be placed on any individual holding within the Trust.[6] A common response from investment trusts to discounted valuations is to issue a share buy-back. In the case of the PCIV's Trust, similar protection might be offered to retail investors through providing an option at issuance. Retail investors should also receive relevant information and reporting. This option would give holders the right, but not the obligation, to redeem the share at cost after seven years, and would not be transferable from the original holder. The number of such options provided to retail investors should be limited at issuance to manage the impact on other groups of shareholders, who would not possess options.

2.23. The Panel would suggest that the executive management of the PCIV place capital waiting to be invested from the Trust in UK small-cap stocks, such as those on AIM. This would be a passive investment, rather than needing to build up an active investment team within the PCIV. Investing in UK small-cap stocks would improve liquidity in this segment of the market, thereby increasing the overall attractiveness of listing for high growth, knowledge intensive businesses and creating a platform for UK consolidators and leading global businesses of the future. However, the decision of how to most effectively utilise capital not yet invested should ultimately rest with the board of the PCIV.

[6] This would need to be assessed for compatibility with EU laws on free movement of capital, to the extent that these remain applicable in the UK following its departure from the EU.

3. Improved returns through "Patient Capital Investment Companies"

***Recommendation:** The Panel proposes a UK "Patient Capital Investment Company" (PCIC) programme to help improve returns for growth and venture stage investors, and stimulate further development of a patient capital investment community in the UK. This should be modelled on the US SBIC debenture scheme and implemented through the British Business Bank.*

3.1. The historically low level of returns in UK VC investing has made it difficult for VC funds to reach scale, and stifled the amount of capital available for investments in scale-ups and science-based start-ups, thereby diminishing entrepreneurial ambitions and exit strategies.

Table 1: 2015 UK Venture returns and comparators (BVCA)

Class	Average annual return (%)
Small MBO	*23.5*
Mid MBO	*16.0*
Large MBO	*12.9*
Index-Linked	7.6
Alternatives (all)	*7.1*
Overseas Equities	6.5
Overseas Bonds	6.4
UK Bonds	5.9
UK Equities	5.8
Venture	***5.1***
Property	4.4
Cash	3.0

3.2. In order to be attractive to investors, VC returns need to show a premium over listed equities of at least 2-3%, to compensate for the lack of liquidity and lack of control. Historically, the average UK VC fund has been unable to achieve this (Table 1)[7]. Although there have been notable success stories for UK entrepreneurs and investors such as Skyscanner, ARM Holdings, Matches Fashion and Improbable, the common perception across the UK investment community is that overall returns remain too low to justify sizeable investment[8].

3.3. This problem is not unique to the venture industry in the UK, but rather is one experienced by most countries. Even in the US, only a handful of the most successful deals result in very high returns. Many governments have introduced initiatives to boost venture returns and incentivise further deployment of capital towards venture, the most successful of which have been the Small Business Investment Company (SBIC) Debenture programme in the US, and the Yozma initiative in Israel.

3.4. The US Small Business Administration (SBA) runs the SBIC Debenture programme. This is designed to increase the amount of capital available to small, high-growth businesses in states with underdeveloped venture industries. SBICs are privately owned and managed investment funds licensed by the SBA. These funds raise their own capital, as well as funds borrowed from a commercial lender with an SBA guarantee, to make equity and debt investments in qualifying small businesses.

3.5. This programme has operated in the US since 1958 at zero net cost to the US government as a result of the portfolio effect, the seniority of the debt, the sharing of risk with commercial lenders, and the detailed due diligence process prior to licensing any new SBIC. At present, the US programme allows for up to $4bn worth of debentures to be sold each year.

3.6. Capital raised through the debenture creates a leverage effect on private capital which boosts returns on equity. The SBA believes that this effect adds 600-900 basis points to SBIC returns. If the average UK VC were to realise an equivalent increase, its returns should out-perform listed equities by a premium sufficient to attract investors.

3.7. The Israeli Yozma initiative was launched in 1993, aimed at developing a more competitive VC industry in Israel. Each Yozma fund was seeded with a mixture of private and

[7] *BVCA Performance Measurement Survey 2015*: Figures are net of fees and a mix of 10-year IRR and 10 year time-weighted return; Alternative asset classes are marked in purple and italicised; Venture and MBO figures include only 1996 vintage funds onwards.
[8] In the case of Improbable, its recent significant funding ($502m) has come from Japan's SoftBank.

government capital, but with a call option on the Government's shares. This option allowed for the fund investors to buy out the shares at cost, plus 5-7% interest, for a period of five years, effectively allowing them to convert the equity into debt and increase the returns on the private capital.

3.8. Yozma was launched following an earlier and less successful scheme, known as Inbal. This scheme sought to protect investors from downside risk, with the Israeli Government guaranteeing a minimum return. However, it failed to attract top management talent, and failed to catalyse development of a large venture industry in Israel.

Figure 7: Overview of international programmes

	International Programmes		
	SBIC Debenture	Yozma	Inbal
Overview	*SBA-guaranteed leverage provided to eligible funds through a debenture*	*Co-investment with a call option on government shares and no guarantee on downside*	*Government guarantees both upside and downside on Venture investments*
Cost neutral	✓	✓	✓
Easily scalable	✓	x	x
Low cost from a cash flow perspective	✓	x	x
Boosts upside returns rather than protecting downside	✓	✓	x
Proven as a successful model	✓	✓	x
Can be regionally focused	✓	✓	✓
Proven to boost venture capital returns	✓	✓	x
Thorough licensing process	✓	x	x
Match of financing type with investment horizon	x	✓	✓
Government may receive returns (from scheme)	x	x	x

Proposed model for the UK

3.9. The successes of the SBIC Debenture programme and the Yozma fund can be principally attributed to two shared characteristics:

- A focus on boosting returns through increasing the upside rather than protecting the downside. In both instances, government intervention was used to leverage investments; and
- Limitations on government exposure as a result of the portfolio effect

3.10. Given its scalability and cost effectiveness, the Panel believes that the SBIC Debenture model would be the most appropriate for implementation in the UK.

3.11. The Panel therefore proposes a UK "Patient Capital Investment Company" (PCIC) programme to help improve returns for growth and venture stage investors and stimulate further development of a patient capital investment community in the UK (Figure 8). This would be based on the SBIC Debenture model, and implemented through the British Business Bank, which would guarantee debentures sold to UK commercial lenders (predominantly banks)[9].

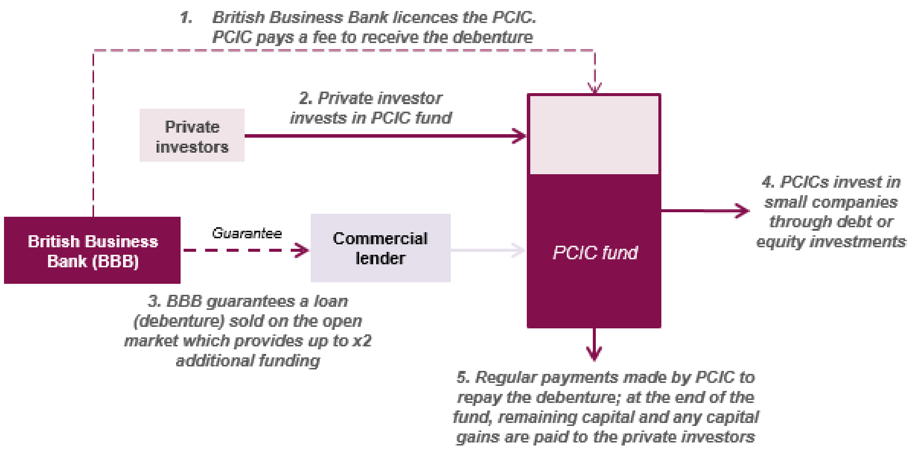
3.12. As with the US SBIC model, growth and venture stage investors would need to be qualified and licensed for participation in the scheme, and regulated to ensure their investments are

[9] The government should ensure that the devolved administrations and legislatures e.g. the Scottish Government are consulted where necessary in relation to this proposal and that the programme is in keeping with the requirements under the UK's devolution settlement.

made for the long term, targeting UK based scale-ups and science-based start-ups. This process would be overseen by the British Business Bank.

3.13. Qualifying as a PCIC would entitle a venture investment fund to raise capital through a British Business Bank guaranteed debenture, in addition to private investment, for a fee payable to the British Business Bank. The amount of capital raised in this manner would be capped relative to the amount raised privately: for example, in the US this cap is set at between one and two times private capital, which would likely also be a suitable level in the UK. Interest on the debenture would be payable by the PCIC to the commercial lender.

Figure 8: Proposed Patient Capital Investment Company (PCIC) Model



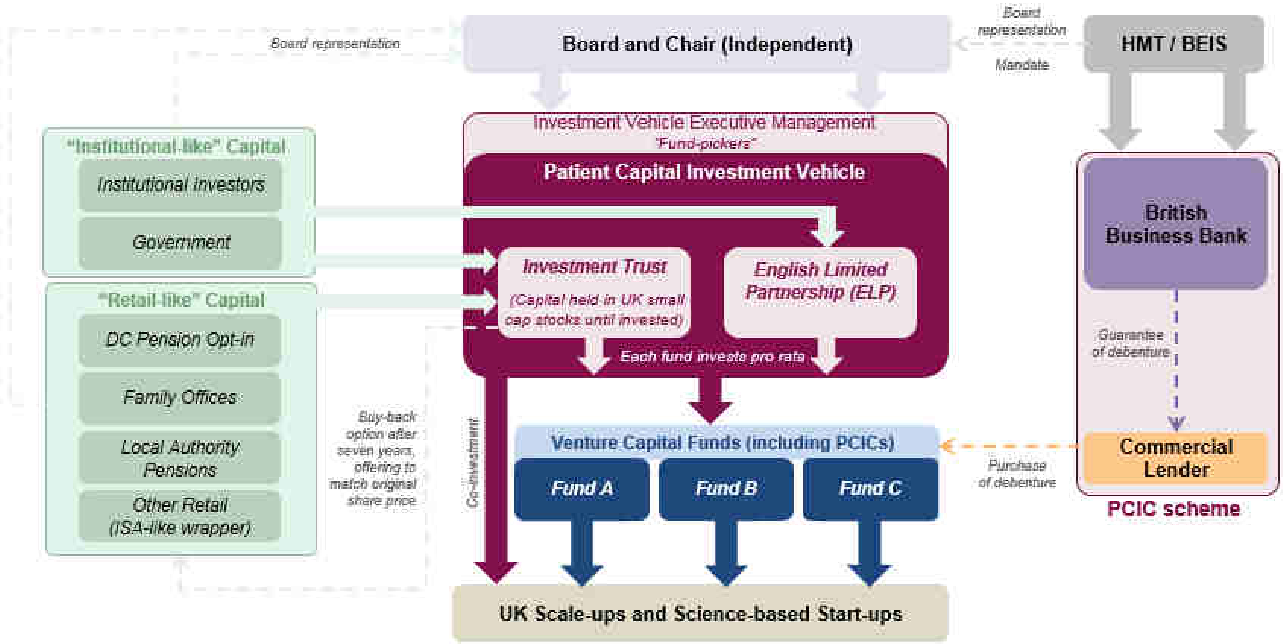
3.14. In a similar vein to the SBIC, the PCIC would actively encourage the development of new funds, particularly in regions of the UK that have historically been underserved by the UK venture industry.

3.15. The PCIC scheme will need to be of sufficient scale to address the available opportunity, and attract commercial lenders, who will need to justify developing internal teams and expertise to support this type of lending. The Panel believes a scheme supporting the sale of c.£600m of debentures each year, equivalent in size to the SBIC (on a GDP adjusted basis), would be sufficient for this purpose.

3.16. In order to address the areas of greatest funding need, qualified PCICs should not be limited in the size of investment they can make in individual UK based scale-ups and science based start-ups. Therefore, to ensure the scheme is not considered to be state aid, it will need to operate on a commercial footing, and thus qualify through a Market Economy Operator (MEO) Test applied by the European Commission. This will require that the extent of the guarantee is limited and that the fee charged to PCICs is no less than the fee a commercial operator would expect to charge on an equivalent guarantee. While not a formal requirement, in practice lenders are likely to require confirmation from the European Commission that the MEO Test is met and, in particular, that the guarantee fee is in line with market practice. The PCIC should therefore be designed to maximise the likelihood that it meets an MEO test[10].

[10] As stated earlier, while the UK may not be tied to EU State aid rules after its departure from the EU, some limits on the ability of the UK government to grant market-distorting subsidies will be an inevitable condition of any ongoing trading relationship with the EU.

Figure 9: Patient Capital Investment Vehicle and PCIC programme overview - governance structure and relationship to public bodies



4. Extending the investment limits for existing EIS and VCT schemes

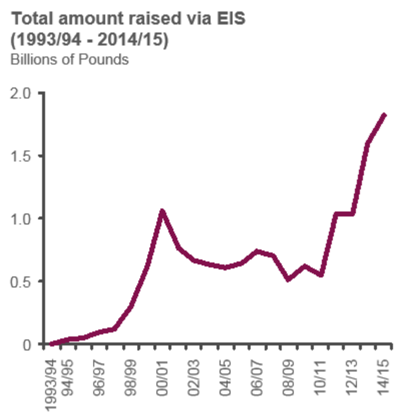
***Recommendations:** Enlarging existing EIS and VCT schemes would enable Angels and VCTs to provide follow-on funding to scale-up businesses, thereby easing the transition from EIS and VCTs to venture. Building on the existing Knowledge Intensive Company allowance would allow support to be focused on science based companies. Adjusting the Connected Party rule would reduce the barriers to entrepreneurs re-investing in their businesses.*

4.1. The tax incentives provided for investing in start-ups through the EIS and VCT schemes have proven extremely successful in attracting funding to help stimulate a vibrant start-up ecosystem in the UK. Entrepreneurs view the schemes highly favourably, and many believe that at least one of the schemes has played a key role in their ability to start and begin to grow their businesses.

4.2. Other tax incentives such as Business Property Relief and Entrepreneurs Relief are considered helpful to the ecosystem but the Panel believes EIS and VCT are the most important tax "levers" to be addressed.

4.3. The total investment a business can receive from EIS or VCTs is capped at both £12m through its life-time and £5m in a single year. This increases to £20m lifetime for Knowledge Intensive Companies (KICs). These limits are defined by the European Commission's state aid clearance decision for the EIS and VCT schemes, as amended.

Figure 10: Total raised via EIS (1993/94-2014/15)



4.4. The intention behind both schemes is to address an ongoing market failure where growing UK businesses are unable to access the capital they require to scale up. Although this was acknowledged by the European Commission in its 2015 amendment to the state aid clearance decision for the EIS and VCT schemes, the full extent of this lack of capital continues to be underestimated, and growing UK businesses still struggle to secure investments of between £5m and £20m.

4.5. Specifically, the caps and rules of the schemes create two inefficiencies in the market as businesses transition into the scale-up stage:

- Early investors using EIS / VCT are unable to provide follow-on tax-efficient investments; and
- Pricing bubbles can develop around the cap, as it is easier to access smaller amounts of tax-incentivised capital than slightly larger amounts of non-tax incentivised capital just beyond the threshold.

4.6. The Panel believes that increasing the threshold for this type of investment, and potentially removing it all together, will encourage follow-on investments, and could help smooth the transition into non-tax-incentivised investments.

4.7. In 2015/16, a total of c.£2.1bn was invested via EIS and VCT. It is estimated that up to £1bn of additional capital could be raised annually through expanding or removing the cap on lifetime investment for EIS / VCT investments, especially given the enduring popularity of the schemes amongst investors.

4.8. Expanding or removing the EIS / VCT investment caps would require additional government funding to be made available and will require further revision of the European Commission's state aid clearance decision for the EIS and VCT schemes. Further economic modelling will be required to evaluate the most effective way to raise this additional investment through tax incentives, considering also the returns available from other tax incentivised investment opportunities such as pension funds and ISAs.

4.9. There are a range of options available to the government, to minimise the cost of any relief extension. This could either be done through a new "Growth EIS or VCT" with a reduced level of tax saving, or within the current scheme. This may have the additional benefit of encouraging the transition away from tax-incentivised funding, while still enabling follow-on investment.

4.10. Any extension of EIS / VCT could focus on KICs in the first instance, as these companies typically require higher levels of investment, although there are other implementation options available to government. Criteria for qualifying as a KIC include proportion of spend on R&D, level of innovation and IP generation, and proportion of skilled workers. The Panel believes that the existing KIC definition is most closely aligned to the type of company that will require patient capital investments.

4.11. Investors are currently ineligible for income tax relief through EIS / VCT if they qualify as a connected party, for example by holding or controlling more than 30% of the shares or by receiving paid employment as directors or employees. The Panel has heard from entrepreneurs who feel restricted in their ability to provide further funding for their business in a tax efficient manner as a result of this rule. By comparison, this is perceived to be a key source of capital in the US. The Panel therefore recommends that this restriction be removed.

5. Overview of solutions

5.1. In summary, the Panel proposes three specific initiatives to transform the patient capital landscape in the UK.

5.2. **A Patient Capital Investment Vehicle:** the PCIV would enable the aggregation and deployment of capital for UK scale-up businesses and capital-intensive R&D-based businesses, increasing the supply of patient capital into the UK market. In order to establish this, the UK government would be responsible for defining the mandate of the Vehicle, providing board representation, providing cornerstone investment with the Vehicle, and setting up its regulatory regime. In addition, introducing a requirement to provide an "opt-in" option on all new payments into DC pension schemes would raise significant retail capital, and require secondary legislation.

5.3. **A UK "Patient Capital Investment Company" (PCIC) programme:** this scheme would improve the returns profile of UK venture investments and catalyse the development of the UK venture community. This programme would be set up by Government as an initiative to be operated by the British Business Bank, and would need to be designed so that it passes a Market Economy Operator (MEO) Test by the European Commission.

5.4. **Extending the investment limits for existing EIS and VCT schemes:** the proposed amendments would enable follow on investment from EIS / VCT investors, thereby easing the transition away from tax-incentivised funding. It would be the government's responsibility to investigate how these initiatives could be implemented, recognising that they would be subject to state aid restrictions, and therefore require authorisation by the European Commission.

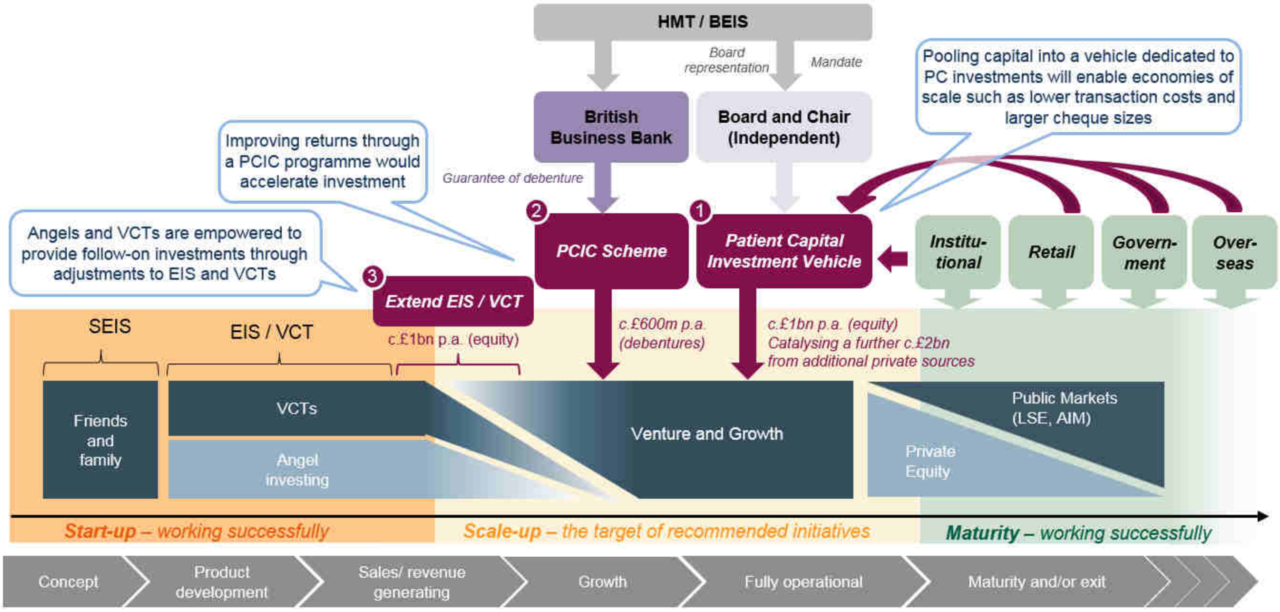
5.5. To achieve the desired transformational impact on the supply of patient capital, and, most importantly, the entrepreneurial ecosystem as a whole in the UK, the Panel strongly recommends that these initiatives be implemented in combination, rather than, for example, "front-running" one of them.

5.6. Collectively, these initiatives provide strong incentives for all stakeholders to invest patiently:

- Institutional investors would benefit from the favourable capital treatment of PCIV investments, the ability to invest at preferred scale (due to aggregation), reduced risk due to portfolio effect and boosted returns through the PCIC scheme;
- Retail investors would now be able to invest in promising UK business through venture, receiving protection and long term incentivisation through an option, as well as benefitting from the boosted returns due to PCICs;
- For VC and other patient capital funds, there would be a significant increase in the availability of capital from patient limited partners, alongside the ability to access debt as a registered PCIC to increase scale and boost returns; and
- The UK economy stands to benefit significantly from the proposed initiatives, as they would collectively catalyse the development of large companies in the UK, thereby increasing jobs and boosting GVA.

5.7. The proposed initiatives are seeking to bring about change to the UK ecosystem over the longer term and any attempt to assess their effectiveness should take this intended timeframe into consideration. Specific metrics to this effect include increases in both average investment size for each funding round and number of companies receiving investment, as well as longer investment holdings prior to exit. However, success will ultimately be defined by the number of UK-based entrepreneurs able to scale their businesses to their full potential, and the GVA and number of jobs created as a result.

Figure 11: The transformed Patient Capital funding landscape



6. Panel engagement

The Panel would like to thank the following for their time and contributions to the Review:

Government Engagement

- Kit Malthouse MP, BEIS Select Committee & No.10.
- Margot James MP, Minister for Small Business
- Ceri Smith (UKGI), BEIS Entrepreneur in Residence
- HMT led roundtables for Life Sciences, Tech and Public Markets
- BEIS Scale-up Taskforce

Industry Participants

- Accel Partners
- Association of Investment Companies (AIC)
- Sir John Bell (Life Sciences Industrial Strategy)
- Bioindustry Association
- British Business Bank
- Business Growth Fund
- BVCA
- Cambridge Innovation Capital
- Matt Clifford (co-founder, Entrepreneur First)
- Coadec
- Creative Industries Federation
- Lord Mervyn Davies
- Epidarex Capital
- European Investment Bank
- FirstCapital
- HarbourVest
- Immunocore
- Israel Institute of Technology
- Law Debenture
- London Business School
- London Stock Exchange Group
- Piers Mahon
- Karen Mills (Former Director, SBA)
- MRC
- Octopus Ventures
- Ranworth Capital
- Mike Rees (ex-Chair and ex-CEO Standard Chartered)
- Royal Academy of Engineering
- Lord David Sainsbury
- ScaleUp Institute
- Keith Sequeira (European Commission)
- Sequoia Capital
- Silver Lake Partners
- Sir Robert Swannell (UKGI)
- Syncona
- John Taysom
- Terra Venture Partners
- Touchstone Innovations
- Wellcome Trust
- Peter Weed and Holger Klaerner (McKinsey Growth Tech Practice)