Institution: University of Leeds		
Unit of Assessment: 17 – Business and Management Studies		
Title of case study: Evidencing the UK Equity Finance Gap: Shaping Policy and Practice for Business Growth		
Period when the underpinning research was undertaken: January 2012 – November 2018		
Details of staff conducting the underpinning research from the submitting unit:		
Name(s):	**Role(s) (e.g. job title):**	**Period(s) employed by submitting HEI:**
Professor Nick Wilson Dr Marek Kacer	Professor of Credit Risk and Finance Research Fellow	01/07/1998 - Present 01/07/2014 - Present
Period when the claimed impact occurred: July 2015 – June 2020		
Is this case study continued from a case study submitted in 2014? No		

1. Summary of the impact (indicative maximum 100 words)

Wilson's research on the UK equity finance gap led to policy changes to support investment in growing businesses. It provided evidence which allowed the UK to retain its tax relief schemes relating to the business investment of over GBP2bn per year by venture capital investors. Based on the research evidence submitted by HM Treasury (HMT), the European Commission (EC) gave State aid approval to the UK, enabling a significant increase in the annual and lifetime amounts of capital that individual companies are legally allowed to raise through equity investment. The UK was the first Member State to obtain this clearance and **Wilson's** research established the methodology that the EU subsequently adopted for other Member States. Evidence on the regional equity finance gap in the UK also shaped government policy resulting in the setting up of the Future Fund with an additional GBP100m of finance for the North. The British Venture Capital Association used the evidence to encourage their members to target investment in the regions and to promote the industry with policy makers.

2. Underpinning research (indicative maximum 500 words)

The 'equity finance gap' – the shortfall between the level of capital investment required by entrepreneurial businesses and the amount actually invested by venture capital investors – has long been recognised as a problem in the UK. The shortage of investment capital for high technology, knowledge intensive and high growth companies restricts their potential to grow and move beyond the start-up phase. A number of government schemes to support business growth have been introduced since 1993, some offering generous tax relief to incentivise investors and others providing direct funds and loans for firms seeking capital.

Research by Professor Nick **Wilson** has focused on the nature and scale of the UK equity finance gap and the performance outcomes of businesses receiving investment. Over two decades, **Wilson** and Professor Mike Wright (Imperial College Business School) compiled unique longitudinal databases on all UK companies active between 1995 and 2020. These include detailed firm-level financial, ownership, governance, socio-economic and geographical data on firms receiving private equity or venture capital investment, covering 34m 'company years'. Dr Marek **Kacer** has supported data analysis since 2014. Research using this database included:

i) The UK equity finance gap and State aid rules

Wilson was commissioned by HMT in March 2015 to analyse the nature and scale of the equity finance gap for early stage businesses, with a particular focus on the knowledge intensive sectors. The UK Government wanted rigorous evidence to take to the EC to demonstrate that its tax relief schemes, set up to encourage investment in new and growing businesses, adhered to the 2015 EU State aid rules and were an appropriate response to the market failure causing the equity finance gap. The study provided the first ever quantitative estimates of the size of the UK equity finance gap for knowledge intensive and potentially high growth firms. A confidential report was provided to HMT in June 2015 with an Executive Summary **[1]** that was published on the HMT website. The analysis, with detailed methodology, was subsequently published in the Journal of Corporate Finance **[2]**.

Econometric modelling of firm level data estimated: i) the demand and supply of equity finance, and ii) the size of the equity gap in the UK, across all sectors and for knowledge intensive firms specifically. The analysis stated that total potential unmet demand for venture capital finance from knowledge intensive firms was estimated at GBP10.5bn. Individual business equity requirements averaged GBP20m for knowledge intensive firms, higher than the GBP14.4m for other types of firm **[1]**. Knowledge intensive firms were also found to take longer to become commercially viable and on a growth path, on average taking 11 years to achieve this rather than the typical eight years. Analysis of the supply of private equity investment showed that investors tend to choose more established, profitable businesses outside of the knowledge intensive sector **[1]**. Earlier work had established that if these companies can overcome the challenges of scaling-up, they will boost the UK's innovative capabilities and contribute to significant economic growth **[3]**.

ii) Regional disparities in equity funding

HMT recommended the Department for Business, Energy and Industrial Strategy (BEIS) work with **Wilson** in June 2019. BEIS had provided a report showing regional variations in the supply of equity finance to make a case for regional investment. However, HMT required evidence on demand across the regions as well as supply data. Consequently, **Wilson** was commissioned by BEIS to undertake this work. The regional equity finance gap was estimated using the longitudinal private company panel data and an additional dataset on equity finance deals. The study tracked the value and number of equity finance deals into small to medium sized enterprises, knowledge intensive and high growth firms in the UK's regions and nations between 2011 and 2017 **[4]**. The supply of equity finance was concentrated in London, the East and South East of England (67% of equity deals and 75% of funds invested), and this dominance was growing. Demand-side analysis identified potential company targets for investment. Regions were ranked according to the size of the potential equity gap. The regions that were most likely to face funding gaps and with the likelihood of local investors investing outside their region were identified as the North East, Yorkshire & Humber, West & East Midlands and the South West **[4]**.

iii) The venture capital industry and the supply of equity finance

Research over the past decade has focused on the supply-side of venture capital and private equity finance **[3]**. The findings showed that private equity-backed buyouts achieved superior economic and financial performance (productivity, profitability and growth) in the period before and during the global recession compared to firms without such investment **[3]**. It was also found that private-equity backed buy-outs are no more prone to insolvency than non-buy-outs or other types of management buy-ins **[5]**. Based on his expertise and body of work on equity backed business, **Wilson** has partnered with the British Venture Capital Association, producing various industry-focused reports, including a report in 2016 **[6]** which detailed the level of private equity investment in the North (North East, North West, Yorkshire and Humberside, East and West Midlands). The report identified 'mid-market[1]' private equity target companies including the incidence of different types of companies based on size, age, sector, technology, board composition and ownership, in the North compared to other UK regions. The BVCA published a summary of the report called "Engines of the North". The analysis includes the impact of private equity investment on exporting, as well as regional variations in equity finance investment and post-investment performance **[6].**

[1] GBP5m to GBP15m assets and/or GBP5m+ turnover.

3. References to the research (indicative maximum of six references)

[1] Wilson, N. and Wright, M., (2015). The Equity Gap in the UK and Knowledge Intensive Firms. Publicly available Executive Summary of the report prepared for HMT and HMRC. https://www.gov.uk/government/consultations/tax-advantaged-venture-capital-schemes-draft-legislation-and-explanatory-notes. Full report available on request.

[2] Wilson, N., Wright, M. and **Kacer**, M., (2018). The equity gap and knowledge based firms. *Journal of Corporate Finance*. 50:626-649. https://doi.org/10.1016/j.jcorpfin.2017.12.008.

[3] Wilson, N., Wright M., Siegel D.S. and Scholes, L., (2012). Private equity portfolio company performance during the global recession. *Journal of Corporate Finance*. 18(1):193-205. https://doi.org/10.1016/j.jcorpfin.2011.11.008.

[4] Wilson, N., Wright, M. and **Kacer**, M. (2019). Equity Finance and the UK Regions: Understanding Regional Variations in the Supply and Demand of Equity and Growth Finance for Business. BEIS Research Paper Number 2019/012 with additional technical report. https://www.gov.uk/government/publications/business-equity-finance-and-the-uk-regions. This report was previously published as an SSRN working paper in 2018.

[5] Wilson, N. and Wright, M., (2013). Private equity, buyouts and insolvency risk. *Journal of Business Finance and Accounting.* 40(7) & (8):949-990. https://doi.org/10.1111/jbfa.12042.

[6] Wilson, N. and Wright, M. Private Equity Targets and Post Investment Performance: A Study of the Corporate Sector in the North and Regions (October 21, 2016). Leeds University Business School Working Paper No. 17-02. Available at SSRN: https://ssrn.com/abstract=2839161 or http://dx.doi.org/10.2139/ssrn.2839161. A shorter version of this paper was published by the BVCA as **Wilson**, N. and Wright, M., (2016). Engines of Growth: Private Equity and Productivity Potential in the North. *Report by Credit Management Research Centre and The Centre for Management Buy-out.* https://www.bvca.co.uk/Portals/0/library/documents/Engines%20of%20growth/Engines%20of%20Growth%20-%20September%202016.pdf?ver=2016-09-23-162708-147.

4. Details of the impact (indicative maximum 750 words)

i) Equity finance gap and state aid rules

In June 2015, the EC gave State aid clearance to the UK for their tax relief schemes to address the equity finance gap, based on the research evidence submitted by **Wilson** to the HMT **[A]**. This decision was published by the EC **[B]**. The approval was obtained in time for the 2015 Summer Budget statement in which the Chancellor announced the proposed legislative changes to the schemes **[C]**. This was the first time that an EU Member State had been given permission to exceed State aid thresholds. A letter from HMT confirms: *"This analysis enabled the UK to be the first Member State to gain State aid approval for limits to the schemes which went beyond the basic EU rules.*" **[A]**

The schemes were the Enterprise Investment Scheme (EIS), which includes the Seed Enterprise Investments Scheme (SEIS), and Venture Capital Trusts (VCTs). Under EIS and VCTs, companies within 7 years of their first sales could raise GBP5m per year up to a maximum of GBP12m in the company's lifetime. HMRC published statistics show that from 2015/16 to 2018/19 the total amount invested in these 3 schemes totalled GBP10.8bn **[Di to Diii]**. Had the EC not granted the State aid approval, this investment would have been jeopardised because the tax relief would not have been in place after 2015. There was an additional risk to businesses because tax reliefs already granted to investors would need to be recovered on the prior investments of GBP20.7bn across the three schemes **[Di to Diii]**.

Following **Wilson's** research, HMT decided that not only should the schemes be preserved, but that enhancements were needed, including additional support for knowledge intensive firms because the research had shown that these firms faced more barriers to investment and their equity requirements were significantly higher. HMT doubled the annual amount a qualifying knowledge intensive company could raise through EIS and VCT schemes in any one year, from

GBP5m to GBP10m for shares issued on or after 6 April 2018[2]. The overall lifetime investment limit was increased: from GBP12m to GBP15m for most companies, with a higher limit of GBP20m and the qualifying period increased from 7 to 10 years for knowledge intensive firms **[C – page 84]**. These limits were directly based on estimates in **Wilson's** report, as confirmed by HMT: "*The UK's proposed limits for EIS and VCT were directly based on estimates provided in the report, which was submitted to the EU Commission.*" **[A].** These changes were enacted in The Finance Act 2018 and came into force in April 2018. Potential benefits from the increased limits were obvious to knowledge intensive firms, with HMRC data showing that in 2018/19 145 knowledge intensive firms raised an overall investment of GBP1.8bn and of these 95 companies raised GBP504m for the first time **[Di]**.

The EC's expected standard of evidence (for UK State aid approval) was high and officials needed specific quantitative analysis of the equity gap and market failure related to early stage companies **[B]**. As a consequence, the Chief Economist of the EC (DG Competition) consulted **Wilson** in 2020 to assist their work on ensuring State aid compliance by all EU Member States. An email acknowledged that his research: "*has been proven very useful to us in the ongoing discussion concerning State aid guidelines on risk finance since your paper proposes a methodology to quantify the size of the equity gap. I wish that more academics would work on topics of direct policy relevance and would be as helpful as you have been.*" **[E]**

ii) Regional disparities in equity funding

Wilson's research has influenced the UK Government responses to the regional equity finance gap which it had identified as a problem in its 2017 Industrial Strategy paper. The study for BEIS on regional equity finance provided detailed evidence of supply and demand that helped them make the case for policy measures to increase access to finance in regions outside London and the South East. A letter from BEIS states: *"there was only one economist in the UK with the skill and experience to properly undertake this work and so BEIS appointed Professor Wilson to lead the project."* **[F]**. The policy measures included the creation of the UK Shared Prosperity Fund and within that the setting up of the GBP250m Future Fund by the British Business Bank to invest in innovative high growth companies. There was also the launch in 2018 of a GBP100m Regional Angels Programme to reduce regional imbalances in access to early stage equity finance for smaller businesses **[G]**. A further BEIS letter states: *"The regional equity finance study is frequently cited and used in policy development in the area of equity finance, for example in the design of Government interventions such as the Future Fund and in the assessment of British Business Bank programmes including regional funding in Cornwall, the Midlands, and the North of England and the Regional Angels Programme."* **[H]**. It continues that three findings in the report (the first ever quantification of the equity finance gap, the fact that there are gaps in every part of the UK including London, and the identification of microeconomic factors related to obtaining finance) continue to be influential in shaping policy **[H]**.

iii) The venture capital industry and the supply of equity finance

The BVCA took the 'Engines of Growth' report that they had commissioned from **Wilson** to the private equity/venture capital industry, and used its data firstly to demonstrate that there is a shortage of supply in the North, and secondly to identify specific companies that were superior investment opportunities given their particular demographic characteristics and predicted performance. The BCVA has also used the findings on performance of private equity-backed companies to better represent the industry with the media and with policy makers **[I]** – a particular problem is that the industry has a poor reputation in the USA but the evidence shows this is not justified in the UK. A letter from the BVCA states that **Wilson** and Wright: *"have been seminal to the wider understanding of the private equity space and that the BVCA would have been far less effective without this material."* **[J]**. The BVCA Director of Research commented: *"work around the growth of private equity-backed businesses in the North of the UK provided evidence backing then Chancellor George Osborne's initiative to strengthen regional growth in the UK through the Northern Powerhouse – that this initiative understood the place of non-bank*

[2] The changes were announced Summer 2015 but due to Brexit not implemented until they were enacted in the Finance Act 2018.

finance in helping businesses grow was in large part because of Wright and Wilson's work." **[I]**. The Enterprise Investment Scheme Association used a survey report by **Wilson** and **Kacer** on 'Equity Finance Provision in the UK and the Impact of the Global Pandemic' to lobby government to close the UK's early-stage equity gap with further improvements to the EIS and SEIS **[K]**.

5. Sources to corroborate the impact (indicative maximum of 10 references)

[A] Letter from Deputy Director, Enterprise and Property Tax Team, HMT, 03.11.15. *[This letter confirms that **Wilson** and Wright provided the necessary evidence for the UK's application to the EU Commission for State aid clearance of EIS and VCT.]*

[B] European Commission, State aid n° SA.40991 (2015/N) - United Kingdom, Amendments to the existing aid scheme "Enterprise Investment Scheme" and "Venture Capital Trust scheme" (previously SA. 33849). *[This document details the EU decision on schemes.]*

[C] HMT (2015), Summer Budget 2015. *[Page 84 confirms the legislative change that was supported by **Wilson's** research.]*

[D] HMRC data on the value of EIS, SEIS and VCT investment in the UK taken from government website:

i) EIS Tables 8.1 to 8.5 and ii) SEIS Tables 8.11 to 8.15 located at:

https://www.gov.uk/government/statistics/enterprise-investment-scheme-seed-enterprise-investment-scheme-and-social-investment-tax-relief-statistics-may-2020

iii) VCT Tables 8.6 to 8.9 located at:

https://www.gov.uk/government/statistics/venture-capital-trusts-december-2020

[E] Email from the Chief Economist of the European Commission (DG Competition), 14.09.20. *[Acknowledges the usefulness of the methods used to calculate equity gap and the policy relevance of this work.]*

[F] Letter from BEIS, 18.07.19. *[Confirms impact of analysis of regional venture capital investment on policy.]*

[G] Regional Programmes British Business Bank: https://www.british-business-bank.co.uk/regional-funds/ *[Confirms the launch of GBP100m for the regions.]*

[H] Letter from Economic Adviser, BEIS, 15.01.21.

[I] Letter from former Director of Research, BVCA, 22.03.19. *[Confirms that the research helped BVCA to influence policy makers and the media, with examples including Northern Powerhouse support.]*

[J] Letter from the Director General, BVCA, 01.07.19. *[Confirms the value of the research in supporting BVCA's engagement with its political and industry stakeholders.]*

[K] Press release by the Enterprise Investment Association. https://pressroom.journolink.com/eisa/release/6_out_of_10_growth_businesses_to_fail_in_2021_unless_government_policy_changes_8049 [accessed 18.01.21]