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Ainsworth, Peter; McKenzie, Tom

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DISCUSSION

On the benefits of risk-sharing for post-COVID higher education in the United Kingdom

Peter Ainsworth[1] **| Tom McKenzie**[2]

[1]Consulting AM Limited

[2]University of Dundee

Correspondence

Email: peter.ainsworth@camrow.com

1 | INTRODUCTION

The long-term impact of the COVID-19 epidemic on higher education has the potential to be significantly positive. There could be more institutions providing a wider range of courses to a larger student body that includes marginalised as well as privileged people of all ages, with a reduced burden on taxpayers and better employability outcomes. The severe impact of the crisis on the economy calls for radical solutions, while the greater acceptability of remote learning makes new arrangements feasible. Competitive developments in Germany, the US, and the UK, whereby institutions' economic interests are being aligned with those of their students, suggest there is the chance of a momentous transformation in funding and institutional structure to deliver better outcomes all round.

2 | ECONOMIC CONSEQUENCES OF COVID-19

Driving the growth opportunity for higher education is the expected increase in unemployment in the UK resulting from the effects of the epidemic. The government's panel of independent economists forecasts that it will increase in 2020 from 3.9 per cent to between 5 per cent and 12.7 per cent (HM Treasury, 2020), representing an additional 375,000 to 3.0 million people out of

work.[1] The closure or shrinkage of many existing businesses – firms in retail, food service, travel and arts/entertainment have all been hard hit – means jobs will be harder to find.

This environment is analogous to troops returning home after a war, unemployed and needing new business formation to provide work. In 1944 the US introduced the G.I. Bill to solve this problem. Through a form of voucher scheme, it subsidised the tuition fees of veterans to attend private or public university or vocational college (Laird & Schilson, 1965). The present situation calls for the UK higher education (HE) sector to grow its capacity to support a bigger share of the population and to teach entrepreneurship to help with replacing the lost industries.

However, under the present funding structure a significant expansion of HE provision would be problematic given that the UK government's balance sheet enters the post-crisis period in a parlous state. The combination of increased expenditure on the health service and financial support for individuals and businesses harmed by restrictions on economic activity is estimated to have cost £150 billion by July 2020, causing total debt to exceed £2 trillion, 100 per cent of GDP, up by 20 per cent over a year and the highest proportion since 1961 (ONS, 2020b).

Investment market discipline is expected to return in due course. To preserve confidence the UK Treasury is seeking tax increases or spending cuts equivalent to between £25 billion and £30 billion per annum (Pickard, 2020). The greater than £10 billion annual write-down cost of student loan underpayments (ONS, 2020c) is one potential target.

3 | ALTERNATIVE FUNDING MODELS

Following the publication of the Browne Report (BIS, 2010), in late 2010 the Treasury considered two funding mechanisms: (*a*) an 'equity contract' (more commonly now referred to as an 'Income Share Agreement' or ISA) between student and university, whereby the graduate makes earnings-linked payments directly to their alma mater; and (*b*) a 'progressive loan repayment' scheme, whereby income-contingent payments go to government (Barr & Johnston, 2010; Cook, 2010). Both of these approaches are based on Friedman (1955, p. 132):

> *The device adopted to meet the corresponding problem for other risky investments is equity investment ... The counterpart for education would be … to advance [the*

> *student] the funds needed to finance his training on condition that he agree to pay the lender a specified fraction of his future earnings.*

Their difference lay in the identity of the lender.[2] For the ISA it would either be the institution itself or a private investment firm. The loan scheme called for funds to be provided by, and repaid to, the state. The choice of lender has a profound effect on the distribution of financial risk between parties. In the former case the risk lies primarily with the institution while in the latter it is the taxpayer who suffers any losses. In both cases students benefit from their monthly payment liability being tied to their income,[3] so eliminating bankruptcy risk, but still assume a large repayment obligation and face significant rate-of-return risk on that and their investment of time. Under the ISA scheme, their alma mater shares in these risks, so aligning interests. The progressive loan scheme lacks this nexus. Institutions are paid regardless of outcomes while risk-bearing taxpayers are unable to affect the provision of HE to mitigate their downside.

The Treasury concluded that the ISA would be difficult to implement and so the loan scheme was legislated.[4] However, recent developments suggest that the government should reconsider its choice. As ISA funding is provided privately it moves the cost of tuition and maintenance fees off the government's balance sheet, while the alignment of interests creates an incentive to improve employability. The state may choose to provide loan guarantees to enable universities and colleges to raise medium-term finance at favourable rates, but such guarantees should have much less impact on the national accounts in the near term[5] than supplying the money directly.

4 | EXAMPLES OF SUCCESSFUL IMPLEMENTATION

ISA financing started in Germany in 2005 with the launch of Brain Capital and has since grown substantially there and elsewhere, especially in the US. Today, Brain Capital offers ISA funding to students at 33 partner universities, the majority of them private. It claims to have financed more than 5,000 students through more than 500 courses of study, with over 2,000 of them now in repayment (Brain Capital, 2020).

In 2016 in the US, Purdue University in Indiana launched the 'Back a Boiler' scheme whereby students could study in exchange for agreeing to an ISA. As of September 2020, more

than 1,600 students are enrolled in the programme with funding totaling over US$17.9 million. Over 150 different courses have attracted ISA funding, the most common being in Engineering, the Polytechnic Institute, Health and Human Sciences, Science, Liberal Arts, Agriculture, and the School of Management (Purdue University, 2020).

A number of non-university firms have also entered the field, in particular Lambda School, founded in 2016, which offers ISAs to all its students. It is now growing rapidly, with a doubling in student count to 2,500 from 2019 to 2020 (Schiffer & Farokhmanesh, 2020). In August 2020 it raised US$74 million in equity funding to support growth in its mission to promote incentive-aligned education (Allred, 2020). Its initial focus has been on software-related courses delivered online to US citizens. It has indicated plans to expand abroad and to add other courses such as medicine.

In the UK two Fintech companies, StepEx and EdAid, have developed systems, approved by the Financial Conduct Authority, for the administration of ISAs, with EdAid (2020) claiming to be "the leading administrator of student payment plans across the globe". There is now also a Lambda School-style start-up, Capslock, which describes itself as "The school which invests in you" (Capslock, 2019). It claims to offer comparable contact time to that of a degree course but at lower cost, with a curriculum that is up to date and has a career-outcomes focus.

These examples suggest that the implementation complexities of ISAs that concerned the British government in 2010 can now be overcome.

5 | RISK AND REGULATION

Consistent with Friedman's contrast between a private system and a state-led system, the German approach relies on risk sharing, financial incentives, and the freedom on the part of the universities, students, and investors (acting through the medium of Brain Capital) to set mutually agreeable prices (the terms of the ISAs) to solve the complex problem of delivering an education that will have career-enhancing value given an uncertain future.

In contrast, the UK government, and devolved administrations, in seeking to manage taxpayer risk inevitably follow the bureaucratic method, regulating the HE sector tightly. Tuition fees are subject to a cap which, in practice, has led to an essentially fixed-price regime that takes no account of costs or outcomes. Institutions have to gain approval to operate. What they pay their

staff is subject to external judgement. Courses are subject to review by a regulator. Teaching hours and quality are marked. Universities must solicit applications from selected parts of the population and grant places on state-guided criteria. Although some describe the UK system as 'marketisation' (Jones & Cunliffe, 2020), the multifaceted regulatory environment severely inhibits the operation of market forces. The resulting distorted incentives manifest themselves in high levels of pay for vice chancellors (Bachan & Reilly, 2015), the growth of unconditional offers (Jack, 2019), grade inflation (Universities UK, 2020), and poor economic returns for many graduates (Britton, Dearden, van der Erve, & Waltmann, 2020).

Hayek (1960, p 81) explained why independent efforts, acting in competition, are more effective at finding solutions to complex problems:

> *It is because every individual knows little and, in particular, because we rarely know which of us knows best that we trust the independent and competitive efforts of many to induce the emergence of what we shall want when we see it*.

The relevance of these ideas is apparent from the contrasting performance of highly regulated education delivery by comparison with systems that rely on alignment of interests. Particularly notable is the failure of the UK's Apprenticeship Levy, which Tom Richmond has described as 'the great training robbery'. He claims that "the levy is too complicated for employers, focused on too many inappropriate forms of training and, as a result, is unlikely to deliver value-for-money" (Richmond, 2018, p. 5).

6 | MORAL HAZARD

Moral hazard will exist in any arrangement where teachers' pay is independent of their performance, as Adam Smith (1776, p. 780) noted:

> *In modern times, the diligence of public teachers is more or less corrupted by the circumstances which render them more or less independent of their success and reputation in their particular professions*.

Regulation has a role to play in preventing moral hazard by ensuring that contractual arrangements fairly distribute the attendant risks between the parties. An ISA could have onerous terms which would generate a moral hazard – the institution would garner a high return even while graduates earn little, encouraging it to cut costs rather than deliver value. To this end, in the US Senators Todd Young, Marco Rubio, and others introduced, on 15 July 2019, the ISA Student Protection Act. It aims to control what can be charged and the repayment methodology in exchange for certainty in relation to tax, securities, and consumer finance laws.

It is not possible to avoid moral hazard where the state provides the funding to the HE sector as this arrangement explicitly transfers risk from the producer institutions to taxpayers. Students also benefit from the risk transfer to taxpayers, which may cause some of them to put in less effort than otherwise. This latter risk transfer is perhaps justifiable as personal effort is only one factor among many that can lead to career success, and the individual has limited control over the others.

7 | ACCESS AND CHOICE

There is debate about what proportion of the population 'should' attend university. A greater number of student/course combinations will be economic (benefit exceeds cost) if costs are variable with no lower limit than where costs are high and fixed. The question then reduces to whether it is better to have taxpayers subsidise student/course combinations that are uneconomic or to structure the funding so that courses are available at different price points without material cost to the taxpayer.

The focus on employability might seem to imply that the ISA approach is suitable only for purely vocational education and that if applied to a university education it would cause the institutions to restrict access to a narrow set of students studying a shortlist of subjects all destined for high earnings.

The experience of Purdue University outlined above suggests otherwise, and it is improbable in principle. Although good performance in school exams and/or wealthy parents are indicators of future economic success (Belfield et al., 2018), there is considerable uncertainty at the level of the individual. Even if it were possible to screen for 'high future potential' there will be fewer such students than the total number who would get some benefit from a higher education.

If a given institution attracted few of these high-potential students it would have an incentive to make use of the flexibility of ISAs to design courses at different cost/price points to create propositions for the remainder.

Likewise with courses. Medicine, a vocational subject taught at university, has the highest mean payoff in terms of future earnings for women and the second highest for men (Britton et al., 2020, figs 32, 33). This may in part be a signal that there is a shortage of doctors. University self-financing would mean liberation from government-ordered caps on the number of places, better meeting society's needs. But once demand has been sated, returns to medicine will inevitably fall. There may be a large need for health services, but it is not infinite. Similarly with software engineers, lawyers, economists and others; once supply matches demand it would be wiser for institutions to diversify their course offering.[6]

Lambda School was sensitive to the need to ensure it was broadly accessible and so carried out a diversity analysis of its students (Lambda, 2020). Of Lambda School students 12.7 per cent identified as Black or African American, comparing favourably with the 3.1 per cent who are awarded computer science degrees and the 7.4 per cent employed in the technology sector, and only just behind the 14.7 per cent share for industry as a whole.

8 | CONSEQUENCES OF COVID-19 FOR TEACHING METHODS

The 'social-distancing' shock delivered by the COVID-19 crisis has upended traditional ways of imparting information to students. It has prepared the sector for a transition to a more flexible future that can exploit the opportunities that would arise from a switch to ISA financing. In particular, the enhanced acceptability of remote learning facilitates a significant reduction in costs. For example, given average debts on graduation of £40,830, of which maintenance accounts for £18,450, courses could be three years long but only one of those would be on-site. That alone could save the average student £12,300 and reduce the level at which income share agreements become economic.[7]

The absence of the personal touch is a shortcoming of remote tuition but there is evidence that different learning styles generate contrasting responses to distance learning with, for example, introverts perceiving benefits from "situations that enable solitude and concentration", one stating that "Since the lecturer does not see me, I feel free" (Offir, Bezalel, & Barth, 2007, p. 15).

Academics also have mixed feelings. While the rapid transition to remote teaching increased workloads and made many feel uncomfortable, others overcame their initial wariness and began to see new potential in distance learning. A recent survey received feedback such as: "The transition to full remote teaching is making my job VASTLY EASIER. I can precisely control the teaching environment, and record and dissect/debrief/improve", and "This disruption has had at least two strong internal advantages: – Everybody has finally made an effort to transition to online learning. ... I wish COVID-19 did not come with horrible impact to many people, otherwise I would be tempted to see it as a blessing of sorts" (Watermeyer, Crick, Knight, & Goodall, 2020).

Remote teaching also facilitates 'competency-based' learning (Mosalanejad, Shahsavari, Sobhanian, & Dastpak, 2012), where students progress at their own pace, not advancing until they pass an assessment. This model enables students to choose their own hours depending on circumstances. It particularly suits working adults, single parents, and other carers, many of whom are economically underprivileged, so making it easier for HE to reach parts of the population currently underrepresented among the student body.

9 | CONCLUSION

Post-COVID, many people will be unemployed, with the state less able than usual to provide money that might facilitate job creation. Education and training are a vital component of a recovery strategy. The behavioural and technical changes arising as a consequence of social distancing make feasible a transition to a more flexible environment where institutions share in their graduates' earnings – so aligning interests. Combining the competitive imperatives of a risk-sharing system with the accessibility and lower costs of a hybrid (part remote, part in-person) delivery method has the potential to generate better employability outcomes for a wider share of the population while saving the government money.

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NOTES

[1] Calculation based on 34,262,000 economically active people between April and June 2020 (ONS, 2020a, table 1).

[2] Although Friedman regarded a scheme with private lenders as preferable because it would replace bureaucracy with initiative and enterprise, he accepted that, in 1955, government would have to play the role of lender. See also Ainsworth (2014).

[3] In the case of the ISA, repayments are typically a fixed portion of all income, payable in years when income exceeds a predetermined threshold. In the case of income-contingent loans, repayments are typically a fixed portion of income in excess of the predetermined threshold.

[4] The scheme currently differs significantly around the UK, as higher education is a devolved responsibility. In England, undergraduate fees cost up to £9,250, in Wales £9,000, in Northern Ireland £4,275, but in Scotland tuition is free. Each nation also provides a loan facility for maintenance, though there are also various grants and bursaries. Again, there are differences between nations over the level and conditions for such provision.

[5] For example, guarantees under the Enterprise Finance Guarantee Scheme are recognised only when called. Typically, the guarantee is at less than 100% of face value – EFG is at 75% – so that the lending institution will lend only to viable propositions (British Business Bank, 2019).

[6] See Ainsworth, McKenzie, and Stroyny (2016) on the high variability of the returns to different courses.

[7] Calculations based on Bolton (2019, table 1). Figures for 2018/19 are assumed for three years.