unobservable characteristics such as motivation or ability is likely to further strengthen effects rather than eliminate them. We check our parametric estimates by comparing them to matching estimates and find very similar results. We undertake two further checks. Theory suggests that those who are more financially constrained should be more responsive to lump sum withdrawals than those who are not. We separately examine those who are more or less income constrained and those who are more or less asset constrained and show that their behaviour is consistent with the theory. Second, we present evidence that smaller withdrawals led to shorter spells on unemployment in the first few months of spells.

We conclude that it was the COVID-19-related access to lump sums from otherwise locked-away private pensions that drove delayed exit from unemployment payments. Because pension withdrawals were not linked to re-employment or job search behaviour, they allow us to identify the effect of extra liquidity on employment spells. The extra money leads to longer spells on unemployment and we find no evidence of higher wages for those who take longer to find employment.

Our findings contribute to literature on social insurance and unemployment. One of the most well founded results of empirical and labour economics is that social insurance payments lead to longer unemployment spells (Mortenson 1977, Moffitt 1985, Meyer 1990, Katz and Meyer 1990, Nekoei and Weber 2017, Jones and Marinescu 2022, and others)<sup>1</sup>. Chetty (2008) (building on Card et al. (2007) and Lalive (2007)) apply this logic to lump-sum severance payments, perhaps the closest approximation of lump sum superannuation withdrawals, and find longer unemployment spells, particularly for constrained households. Labour market effects are of particular interest in light of the emerging literature around the cyclicality of unemployment insurance (Ganong et al. 2021, Landais et al. 2018, Kroft and Notowidigdo 2016 and Schmeider et al. 2016), its links with job match quality (e.g. Van Ours and Vodopivec 2008) and the prospect of financing crisis support lump sums through reductions in future retirement balances rather than directly from the public purse.

Our paper is also the first to evaluate the effect of pension withdrawals on labour market behaviour. As such, we contribute to a new and growing literature focused on other aspects of pension withdrawals such as their consumption stimulatory effects, e.g. Kreiner et al. (2019) and Andersen (2020). The Australian Bureau of Statistics (2021) estimates that close to 90 per cent of withdrawn funds were consumed or used to pay down credit card or personal debt over the course of 2020. Hamilton et al. (2021) use bank consumer data to estimate that more than half of funds from withdrawals were consumed within 6 weeks of arrival in bank accounts.

The next section covers the policy context. Sections 3 and 4 detail the conceptual framework, data and empirical strategy. In Section 5 we introduce the results. In Section 6 we discuss policy implications and offer a brief conclusion.

<sup>&</sup>lt;sup>1</sup> Further, a broadly agreed goal of unemployment assistance is to help the unemployed smooth consumption until they find reemployment (Shimer and Werning 2008, Bloemen and Stancaneli 2005 and Andersson 2018). The early literature approach traded off the 'moral hazard' discouragement to seek employment with the consumption-smoothing benefits of payments (Mortensen 1977, Feldstein 1978, 2005, Kreuger and Meyer 2002, Lalive et al. 2006, Card et al. 2015). Chetty (2008) then decomposed both a welfare-enhancing 'liquidity' effect and a welfare-reducing moral hazard effect. Lump sums like the withdrawals we study represent a pure liquidity effect in the short term.

<sup>&</sup>lt;sup>2</sup> Further evidence from <u>Beshears et al. (2015)</u> and <u>Argento et al. (2015)</u> in the US context, <u>Agarwal et al. (2018)</u> on Singapore's mandatory defined contribution plan, and <u>Guo and Narita (2018)</u> on Pacific island nation decisions to provide early access following a natural disaster, suggest that there is the potential for suboptimal decision-making at the individual level but potential short-term improvements to welfare associated with early withdrawals.