2021年台灣經濟研究傑出論文獎中文摘要

提早就業獎勵與延長失業給付的福利效果分析

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失業保險是各國重要的社會保險制度, 旨在讓勞工於失業期間內仍然有穩定的所得來源, 以維持他們的消費水平, 如此一來失業者便能心無旁騖地好好找工作。但提供失業保險卻也可能會引發道德風險, 因爲在有保險的狀態下, 人們通常有誘因「充分利用」保險給付, 降低尋職動力, 刻意保持在失業狀態來領完失業津貼。因此, 提高失業給付一方面能幫助勞工在其艱難時刻維持不錯的生活水平, 增加社會福利。另一方面卻扭曲失業者尋找工作的意願, 造成不事生產的人過多, 產生福利損失。最適的失業給付政策即是在權衡這兩種截然不同的福利效果。

總的來說, 失業保險制度大致有幾種政策工具可以使用, 像是調整給付水平 (所得替代率)、調整給付期間的長短與是否給予提早就業獎勵, 過去的文獻大多關注調整失業給付水平的政策影響與福利效果, 較少分析調整失業給付期間以及給予提早就業獎勵的影響。

這篇文章對文獻的貢獻在利用高品質的台灣就業保險的行政資料與 regression kink (discontinuity) design, 分析過去文獻較少關注的提早就業獎勵與延長失業給付的效果。我們首先利用 regression kink design 分析提供提早就業獎勵的效果, 台灣的失業保險自 2003 年起開始提供提早就業獎勵, 失業勞工若在用完失業給付前找到工作, 可領取未用完的失業給付之一半作爲再就業獎勵。由於這項政策是在 2003 年 1 月 1 日實施, 對於在 2002 年 7 月到 2003 年 1 月之間失業的勞工, 根據他們失業日期的不同, 得到的潛在提早就業獎勵金額也不同。我們使用此一獎勵的外生變異來估計

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政策效果。實證結果發現提早就業獎勵政策顯著提升失業勞工找到新工作的機率，減少失業給付領取天數約6%、減少失業天數約9%，且對再就業薪資沒有影響。

接著我們分析延長失業給付的效果，台灣自2009年起將45歲以上的失業勞工的失業給付期限從6個月延長到9個月，我們限縮樣本的失業年齡在43–47歲，利用 regression discontinuity design 比較在45歲附近失業的勞工，由於這些勞工的年齡十分接近，許多特性像是薪資、所屬產業、出生地等都很類似，唯一的差異可能就在45歲以下者可領取6個月的失業給付，而失業年齡稍微超過45歲，則可再多領3個月。如此一來我們便能排除其他干擾因素，估計延長失業給付對勞工尋職與再就業表現的影響，實證結果顯示延長3個月的失業給付顯著減少勞工找到新工作的機率，增加失業給付領取天數約39%、增加失業天數約14%，然而，更長的尋職時間，對再就業薪資沒有顯著地影響。

在衡量提早就業獎勵與延長失業給付對勞動供給與薪資的影響後，我們建構一個勞工尋職模型，利用這個模型我們得知就業獎勵與延長失業給付對社會福利的影響取決於上述的政策效果，結合這些政策效果的估計與理論模型，我們可以推論這兩個政策對社會福利的影響。

首先，失業勞工因爲再就業獎勵縮短了失業的天數，減少了政府在失業保險上的支出，同時也使得稅收收入增加。具體而言，我們估算100元的再就業獎勵僅需要39元的稅收來支應，也就是說，再就業獎勵有正的外部性，提高社會福利。另外，我們估計100元的延長失業給付支出需要107元的稅收來支應：延長失業給付有負的外部性，增加了政府在失業保險上的支出。

延長失業給付雖然增加了政府在失業保險的支出，但是，很重要地，我們也必須估算延長失業給付的效益。在我們的模型中，延長失業給付的效益爲失業時的消費相對於就業時消費的價值，也就是兩者的邊際替代率。我們雖然沒有消費的資料，但由於本文分析的兩個政策分別是勞工失業時與就業時的所得移轉 (income transfers)，且失業與就業時的所得移轉對勞動供給的影響取決於失業時與就業時消費的邊際效用，藉由比較兩個政策對勞動供給的影響，我們可以推估延長失業給付的效益。確切地說，我們

估計失業時消費的價值是就業時的2.5倍, 結合成本與效益的估計結果, 我們發現, 消費提升所帶來的效益, 高於延長失業給付的成本30%。

自1999年失業保險開辦以來, 台灣的失業保險已有超過20年的經驗, 我們的研究結果對延長失業給付以及提早就業獎勵政策抱持肯定的態度。前者爲中高齡的失業勞工提供較充足的所得來源, 後者則針對失業保險的副作用, 獎勵提早就業的失業勞工。很重要地, 我們的實證研究得利於高品質的行政資料與合適的實證設計, 有了可信的實證結果, 結合適當的理論模型, 得到具政策參考價值的福利分析。展望未來, 政府與學界可結合勞保局的行政資料與經濟學方法嚴謹地評估相關政策的成本效益, 以作爲未來政策設計的參考。

Best Paper Award for Research on Taiwan's Economy (Abstract)

The Welfare Effects of Extending Unemployment Benefits: Evidence from Reemployment and Unemployment Transfers

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Unemployment insurance (UI) protects individuals from the risk of earnings loss during unemployment (i.e. insurance value), but it also distorts incentives to search for jobs (i.e. moral hazard). During a recession (e.g. the recent COVID-19 pandemic), extending UI benefits is one major policy tool that can be used to protect workers against adverse shocks. Although the duration of benefits as opposed to benefit levels is at the center of UI policy debates, most existing studies focus on the welfare effect of changing the UI benefit level. Empirical evidence regarding the value and welfare impacts of extending UI benefits (e.g. increase the potential duration of UI) is still scant. On the other hand, to reduce the moral hazard effect of UI, some countries have offered re-employment bonuses as financial incentives to workers who find jobs quickly. In fact, during the COVID-19 pandemic, the U.S. government has considered implementing a re-employment bonus (i.e. a back-to-work bonus), to reduce the financial burden on the UI system and get people to rejoin the workforce. While the disincentive effect of UI, measured by the elasticity of non-employment duration to UI benefits, has been estimated across a wide variety of UI contexts, the incentive effects of re-employment bonuses are less studied and still largely rely on early U.S. bonus experiments.

In this paper, we contribute to the current literature by examining the above under-studied issues. In the first part of the paper, we exploit two significant UI reforms in Taiwan, in order to investigate how workers' search efforts respond to income transfer when re-employed and unemployed. In 2003, the Taiwanese government introduced re-employment bonuses whereby

people would be paid 50% of their remaining UI benefits after regaining employment. The re-employment bonus program reached back to UI recipients receiving benefits when the program took effect in 2003. Therefore, it resulted in two kinks in the offer for which workers were eligible as a function of the dates the UI spells started. Thus, we use a regression kink (RK) design herein to examine the effects of the re-employment bonus. On the other hand, after 2009, workers who lost their jobs when aged 45 or over became eligible for 9 months of UI benefits instead of the 6 months offered to those under 45. We use a regression discontinuity (RD) design to examine the effects of extended UI benefits, by comparing the outcomes of individuals just before and just after being 45 years old at the point of being laid off.

Our estimates using the RK design show that the provision of a re-employment bonus increases the monthly re-employment hazard by about 2 percentage points and significantly reduces benefits duration and non-employment duration by 6% to 9%. Moreover, we find that faster re-employment does not significantly affect the quality of a job match, such as post-unemployment wage and job tenure. Second, our RD estimates suggest that a three-month increase in potential benefit duration reduces middle-aged UI recipients' monthly re-employment hazard by 3 percentage points. The implied elasticity of non-employment duration (UI benefit duration) with respect to potential benefit duration is 0.27 (0.78). However, being eligible for longer potential benefit duration has little impact on job match quality.

In the second part of the paper, we integrate our reduced-form estimates with a search model to conduct welfare analysis. First, we investigate the behavioral costs of one NTD spending on the two policies. On the one hand, we find that the provision of re-employment bonus can induce the behavioral response (i.e. shortening spells of insured unemployment) that leads to a positive fiscal externality. The behavioral cost of one NTD of initial spending on the re-employment bonuses is −0.61 — the behavioral response to one NTD of re-employment bonus enhances the government budget by 0.61 NTD so that only 0.39 NTD have to be raised to finance one NTD of re-employment bonus. On the other hand, our estimates suggest that extending UI benefits result in a negative fiscal externality. The behavioral cost of one NTD of spending on increasing potential benefit duration is 0.07, which is at the lower end of previous research.

Second, we exploit the two sources of income variation — re-employment

bonuses and extended UI benefits — to estimate the value of UI extension. The value of UI is fully captured by the marginal rate of substitution between consumption when unemployed and employed (MRS), because the MRS describes how much consumption workers are willing to give up when employed, in order to increase one NTD of consumption when unemployed. Since workers' responses in re-employment hazard depend on their marginal utilities of consumption, the differential responses in the re-employment hazard to extended benefits and re-employment bonuses help us identify the MRS. An important issue we must address before estimating the MRS is that Taiwan's UI extension increases not only the potential benefit duration, but also the qualification period for re-employment bonuses — the UI extension increases workers' income not only when unemployed, but also when employed. To recover the effect of a pure unemployment transfer, we decompose the effect of the UI extension on the re-employment hazard into two effects: (1) the effect of an unemployment transfer and (2) the effect of a re-employment transfer. Our estimates suggest that the marginal value of an unemployment transfer during an extended benefit period is about two times larger than that of a re-employment transfer, i.e. an MRS around 1.5 to 2.5. Combining the estimated value of extended benefits with its behavioral cost, the marginal value of public fund (MVPF) of extending UI benefits is about 1.3 to 2; thus, a welfare gain of one NTD spending on extending potential benefit duration is about 1.3 to 2 NTD.