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Income contingent student loans for Thailand: Alternatives compared

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ABSTRACT

There is significant irresolution in many countries concerning the design of student loan schemes. In no country recently has there been more uncertainty as to the form that loans should take than Thailand. The Student Loans Fund (SLF), a conventional approach to financing, was introduced in 1996, discontinued at the end of 2005, and re-introduced in 2007. In its place an income contingent loan (ICL) was implemented for one year only, 2006. As part of this debate we contribute to an understanding of the repayment burdens associated with the SLF in Chapman, Lounkaew, Polsiri, Sarachitti and Sitthipongpanich (in this issue).

There are important issues with all ICL, and in this paper we consider the critical matter of interest rate subsidies. These are calculated for four different possible ICL arrangements for Thailand: the Thai Income Contingent and Allowance Loan (TICAL), a variant of TICAL, and two alternatives. With a broad-brush approach the subsidies for TICAL-type arrangements and for current debt levels turn out to be between 25 and 40 per cent, but are about zero for our suggested alternative ICLs.

Using a better, more disaggregated, approach, subsidies for TICAL-type schemes are estimated to be about 30–55, and 3 and 18 per cent for our alternative ICLs. But with very large debts, the subsidies of all schemes are very high, implying that ICL are likely to be expensive until Thai graduate incomes rise. Importantly for equity however, the interest rate subsidies are delivered to graduates with relatively low lifetime incomes.

1. Introduction

In 2006, for one year only, Thailand introduced an income contingent loan (ICL) system for higher education, known as the Thailand Income Contingent Allowance and Loan system (TICAL).[1] TICAL was based on Australia's Higher Education Contribution Scheme (HECS), an ICL in which tuition charges are collected through the income tax system depending on a student's future income. HECS was instituted in 1989, and similar student loan policies commenced over the 1990s and beyond in, among other countries, New Zealand, Chile, South Africa, Ethiopia, Hungary and the UK. Other countries, notably Ireland and Malaysia, are involved currently in research-based debate on the usefulness of ICL approaches to higher education financing.[2]

This paper begins by examining the conceptual bases of alternative student loan systems, and it is argued that ICL approaches are generally desirable for a range of reasons examined. However, such an assessment is associated with two extremely important qualifications: one is that the public sector administrative institutions of a country need to be such as to allow efficacious collection of a former student's debt; and the other is that an ICL needs to be properly designed with respect to key parameters.

We are unable to ascertain with complete certainty if potential Thai collection arrangements are such as to

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[1] For description and analysis of TICAL, see Krongkaew (2004).

[2] For analyzes of these developments see Chapman (2006a), Chapman and Tan (2009), and Chapman and Hunter (2009).

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enable efficient and fair collection of an ICL, and we leave the answer to that critical question to administrative, tax and/or social security specialists[3]. Our aim instead is to throw significant light on the second concern, the importance of design parameters with respect to the likely outcomes of such a system, with our focus being on the critical issue of implicit taxpayer interest rate subsidies. Internationally this is now perhaps the most important non-administrative design issue for an assessment of the efficacy of ICLs.

We are able to compare and contrast the results of our exercises with related analysis of the current Thai loan scheme known as the Student Loan Fund (SLF), explored in Chapman *et al.* (in this issue). Chapman *et al.* (in this issue) and the work reported in this paper use the same data set and similar econometric approaches, allowing direct comparisons of interest rate subsidies for a wide range of alternative prospective Thai student loan schemes. Direct evaluations are offered below on this issue, and Chapman *et al.* (in this issue) also analyze debtor repayment burdens with respect to the SLF.

The main contributions of what follows are the interest rate subsidy calculations for four different ICLs for Thailand: two different interpretations of how TICAL might have worked in practice had it not been discontinued, and with two proposed alternative variants of ICL. It becomes clear that there are great diversities in this critical aspect of loan policy between approaches, due to two aspects of policy design: the incomes at which graduates first have to begin repaying their debts; and the level and form of the interest rate levied on student debt.

The findings suggest that in design terms there is a viable option for an ICL for Thailand, but this conclusion seems to be more credible for relatively low levels of debt than for the sizes of tuition that are more likely to be associated with higher price private institutions. We stress that the pertinent administrative issue concerning the collection costs of an ICL in Thailand have not been examined.

It is useful also to compare the analysis reported below with the exercise of Chapman and Lounkaew (2009), which uses the Thai labor market survey to address related questions. That paper presents: (i) quantile regression based calculations of the private internal rates of return to higher education investments for three variants of possible Thai loan schemes, the SLF, TICAL and a version of an ICL also explored in the current paper, and shows that these estimations are very insensitive to the form of the loan scheme in operation; (ii) calculations of implicit interest rate subsidies associated with two of the income contingent loan approaches for a total student debt of 100,000 Baht and; (iii) average results from quantile based regression methods, finding that the subsidies are very different depending on the collection parameters of the loan scheme.

As well as offering analyzes of a much broader range of possible ICLs for Thailand, and examining the important issue of the effects of much higher debts for interest rate subsidies, this paper offers a methodological contribution; this concerns how econometrics can be used to construct useful simulations of distributions of graduate lifetime earnings for loan analyzes. Chapman and Lounkaew's (2009) application of quantile regressions to calculate averages is an improvement over the use of ordinary least squares because the OLS approach focuses on expected lifetime income streams for graduates estimated at the average of the earnings distributions by sex. However, instead of the quantile method we use truncations with respect to lifetime earnings (explained below) and we believe that this offers important new insights into the effects of loan policies, a point considered further below. Significantly, we are able to illustrate the extent of subsidy differences across the earnings distribution.

There is a possible shortcoming of our choice of sample and the truncation method which, while they have opposite effects, could mean that the calculations of implicit interest rate subsidies are underestimates of what would occur in reality. This is explained and alternative approaches are suggested for future research.

2. Traditional student and income contingent loan schemes: conceptual issues

2.1. The need for government intervention in higher education financing

A significant financing issue for higher education is that there is generally seen to be a case for both a contribution from students and a taxpayer subsidy (Barr, 2001; Chapman, 2006a, 2006b). An important question is: is there a role for government beyond the provision of a subsidy?

An understanding of the issue is facilitated through consideration of what would happen if there was no higher education financing intervention involving the public sector beyond a subsidy. That is, a government, convinced that there should be a subsidy, could simply provide the appropriate level of taxpayer support to higher education institutions or to students directly, and then leave market mechanisms to take their course. Presumably this would result in institutions charging students up-front on enrolment for the service.

However, there are major problems with this arrangement, traceable in most instances to the potent presence of risk and uncertainty, a critical point first raised in Friedman (1955). The argument can be best understood with reference to the nexus between labor markets and human capital investments, with the essential point being that educational investments are risky, with the main areas of uncertainty being as follows[4]:

(i) Enrolling students do not know fully their capacities for (and perhaps even their true interest in) the higher

[3] The analysis below of requirements suggests the importance of being able to collect the debt on the basis of observed lifetime incomes, and this might imply for Thailand the use of the social security system instead of the income tax system. With the former there are already income contingent collections of funds for pensions. Krongkaew (2004) argues that the Thai income tax system would be an effective collection agency for ICL.

[4] As discussed by Barr (2001), Johnstone (2004a), Palacios (2004) and Chapman (2006b).