Universidad de Chile
Facultad de Ciencias Fisicas y Matematicas
Departamento de Ingeniería Industrial

MAGCEA Semestre Primavera 2008
IN77I-1 Economía Laboral

TAREA GRUPO 2

(Fecha de entrega: 19 Diciembre 2008, 17.00 hrs.)

Tax-benefit policies and labour supply in Chile.

1) Overview of the tax-benefit system in Chile.

Provide a descriptive overview of the tax-benefit system existing in Chile as of 2006. Focus on taxes and benefits relevant to the households (e.g. child benefits, family benefits, social assistance benefits, unemployment benefits, pensions, labour income taxes to mention the most relevant). Do not consider indirect taxes (v.a.t.) or taxes on capital. In order to make a careful classification of the instruments in place in the Chilean system, you can refer to the classification adopted by the OECD in the publication "Benefits and Wages: 2008 edition" available at:

http://www.oecd.org/document/3/0,3343,en_2649_34637_39617987_1_1_1_1,00.html

The OECD website reports the following classification for tax-benefits systems:

- Unemployment benefits
- Social assistance
- Housing benefits
- Family benefits
- Lone-parent benefits
- Employment-conditional benefits
- Income taxes
- Social security contributions
- Tax treatment of benefits

Given that the eligibility rules and the amount of the benefits normally depend on the household composition and household income (e.g. in the case of means-tested benefits, such as family benefits), provide the above classification for a selected number of household types: you can follow the household typologies adopted by the OECD or use your own, for instance:

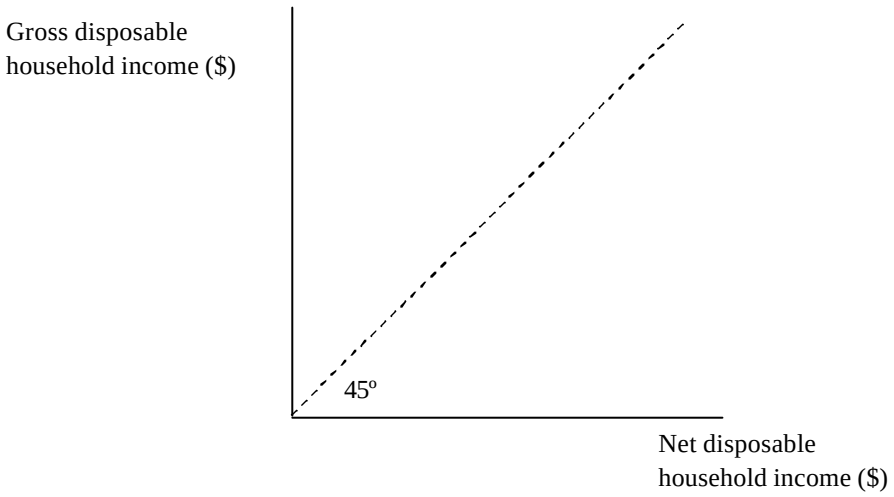
- Single person, no earner without children;
- Single person, no earner with children;
- Single person, one earner without children;
- Single person, one earner with children;
- Couple, no earner without children;
- Couple, no earner with children;
- Couple, single earner, without children;

- Couple, single earner, with children;
- Couple, two earners, without children;
- Couple, two earners, with children; ……and so on…

2) Net-to-gross conversion of household income and calculation of replacement rates:

Using the information obtained in 1) and the information available on benefits and net income from the cross-sectional household survey "CASEN" for the year 2006, compute for each household in the sample the *gross* disposable income (before taxes and benefits). Compute replacement rates for different households types (as defined above) at different income levels: the replacement rate is defined as ratio of net disposable income (after taxes and benefits) to the gross disposable income (available *before* taxes and benefits). Look at the OECD tax-benefit calculator as an example.
For different household types, plot net versus gross disposable income as follows:

Housheold Type: Couple, 1 earner, with children



3) Assessment of the distributional effect of the Chilean tax-benefit system:

Using the information obtained in 1) and 2), discuss the distributional effects of the Chilean tax-benefit system as follows:

a) obtain some key distributional statistics (poverty index, Gini index, Theil index, top-to-bottom deciles etc.) for household disponsable income *before* and *after* taxes and benefits for the total population are included in the household income definition; carry out the analysis for the total population, for selected household types and for selected group of economic activity, e.g. employed vs. unemployed (install the Stata ado-files *ineqdeco* and *povdeco* by Stephen Jenkins);

b) obtain the incidence of taxes and benefits on total household gross disposable income by deciles of the household income distribution for the total population and selected household types;

c) obtain the Marginal Tax Rate (MTR) faced by non-working men/women when they decide to work full-time or part-time in the following household types:

- couples, no earner, with and without childen;
- single earner couples with and without children where the men/woman is not working;
- single persons not working with/without children;

In the case of couples, two earners, with and without children, compute the MTR if the first/second earner switches from full-time and part-time employment to non-employment.

Remember that the MTR is defined as the ratio between the increase in the tax payment (net of benefits) faced by a given household type when the non-employed person starts working fulll-time (or part-time) and the corresponding income increase associated to the change in economic activity status.

Comment the results obtained. Is the Chilean tax-benefit system well targeted? in other words, are the recipients of benefits actually poor or belonging to the lowest part of the income distribution? Is the Chilean system effective in reducing poverty and inequality? In other words, does the position of the beneficiary of the benefits change substantially in the total income distribution (e.g. with respect to the poverty line) *after* taxes and benefits have been taken into account? Finally, what can you say on the labour supply incentives for non-working men/women (fathers/mothers) implied by the existing tax-benefit system according to your calculations of the MTRs?

4) Econometric estimation of labour supply for men and women and evaluation of some recently proposed policy changes.

a) Use the results obtained in 1), 2) and 3) to calculate the budget constraints for different household types. How can this information be used to estimate labour supply equations for men and women? Which is the usefulness of this approach when trying to estimate labour supply responses induced by changes in the tax/benefit system?

b) Estimate labour supply equations separately for men and women for 2006, justifying the specification adopted.

c) Two of the set of measures recently proposed by the "Consejo de Equidad" to improve the performance of the Chilean labour market without worsening inequality include the increase in the minum wage and in the introduction of a number of instruments to enhance female labour market participation (see the publication "Hacia un Chile mas justo: trabajo, salario, competitividad y equidad social. Informe Final"). Briefly summarize the measures proposed. On the basis of your findings of the previous sections, try to provide an estimation of the "day after effect" of the two set of reforms, that is the simple distributional impact of the reforms without taking into account potential labour supply responses (you need to gather institutional information on the cost of child care). Further, using in particular the results from section 3), try to estimate the potential labour supply responses induced by the reforms, and the final distributional impact taking into account such responses. As far as female labour market participation is concerned, do you think that the introduction of a means-tested tax credit (in the spirit of the Earned Income Tax Credit in place in the US or the Working Family Tax Credit in place in the UK) for working mothers or working couples would be more effective than the measures proposed by the "Consejo"? Justify your answer quantitatively.