Alternative measurements of the aging of the labour force. Demo-economic dependency ratios in the case of Italy (2000-2050)

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## Extended Abstract:

There is a broad consensus that demographic change will have a massive impact on all levels of society, especially in the area of labour. There is also a growing awareness that, as the population becomes progressively older, workforces cannot be indefinitely rejuvenated. This is particularly true for Italy, where the combination of one of the highest life expectancies and one of the lowest employment rates among developed countries will soon drive the country to very high demographic and economic dependency. In fact, support ratios are predicted to decline very sharply in the next fifty years, given a very stably low TFR and the exit of baby-boomers from the labor market.

The aim of this paper is to give alternative measures of aging of the labour force by including economic variables into the ratios. Knowing the value of actual support ratios, we will test their sensitivity to age productivity and consumption with the help of given indexes. It is of a crucial importance to study dependency by age indexes because it is evident that young and elderly do not play the same economic role: these groups produce and consume very differently and they might occupy quite relative weight in the economic burden.

Thus, age is not the only important variable. The paper also considers the impact of the gender issue on dependency. The aim here is to show that by gradually raising the Italian female employment rate up to the present level of the Swedish one (where Sweden is taken as a benchmark country for very high level of female employment), support ratios will indeed not show the expected sharp decline, even taking into account productivity and consumption indicators.

The paper has three parts. The first one describes general Italian demographic characteristics, while at the same time it emphasize the aspects of the demographic dependency as well as of trends for the development of the active population.

The second part is focused on the data and methodology as well as the application of the mentioned indexes to support ratios. The data used in this analysis comes from the Eurostat database. The consumption indexes are taken from Cutler, 1990. They have three age group and different levels of consumption, with the aged people consuming more than the young group. The productivity indexes are taken from Skirbekk, V., 2004. They produce three different levels of productivity according to the importance of the working experience and they are divided in six age groups, with the group aged from 25 to 34 having the reference index of 1. For the last variable addressing the gender issue, the Italian female employment rates are driven to the Swedish ones through a linear regression in a span of 50 years.

Applying this approach to classical support ratios results in an output of eight different measures: pros and cons for each of them are then outlined, giving the framework of possible political options to their impact on the labor market.

The last part of the paper will present the expected results which consist on one side in a significant raise of the economic dependency in the period 2010 - 2040, even taking into account the best conditions of productivity and consumption. On the other side, the economic dependency is awaited to decrease sharply in case of a raise in the female employment rate.

Regarding the ageing of the labor force, it is clear that the situation give no respite as far as the recent reform of the pension system will not be efficient enough to offset the problems of early retirement and elderly unemployment. For this reason specific action in the framework of active labor market policies for older workers will continue to be required for many years to come. Many measures – from job creation schemes through training and wage cost subsidies – are proving to be necessary, even if the central focus has to be on keeping people in the labor market. But as far as this group is growing, it is necessary to think about crating new fields of employment and occupation for them, because it is unrealistic to assume that they will all want keep working within the same system.

On the side of female employment, it is essential that more favorable conditions for increasing their participation rate – an objective which is by no means contrary to the preferences of women themselves – are created as soon as possible. The idea of a package of measures including child-care facilities and alternative working time practices is so important because initiatives of this type are essential if we are to avoid

the negative repercussion which an increased female participation rate may have on long-term demographic development.

The observation that measures which may make perfect sense – in terms of profitability and effectiveness – on theoretical level can have a different impact on the practical one is indisputable. Patterns of productivity and consumption might be completely different than those used in showed support ratio, and nobody can predict if female employment will ever increase and at which level. But these sensitivity analyses emphasize the alarming burden of dependency are just an example to show how all the relevant participants – employers, employees, political and social institutions – should be concerned about this topic.

Finally, it is important to point out that the employers, employees, and the political and social institutions need to dialogue among them. This dialogue must be used to clarify the patterns of behavior and action which may promise to satisfy the short-term interests of one part, which can generate much more disadvantages and even prove counterproductive effects for precisely those groups aiming to profit from them. Dialogue should concentrate on analyzing the current situation and implementing potential measures in accordance with precisely such criteria.