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What drives public health care expenditure growth? Evidence from Swiss cantons, 1970–2012

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ABSTRACT

A better understanding of the determinants of public health care expenditures is key to designing effective health policies. We integrate demand and supply-side determinants and factors from political economy into an empirical analysis of the highly decentralized Swiss health care system and control for major health care finance reforms. We compile a novel data set of the cantonal health care expenditure in Switzerland, which currently amounts to about one fifth of total health care expenditure. We analyze the period 1970–2012 and use dynamic panel estimation methods. We find that per capita income, the unemployment rate and the share of foreigners are positively related to public health care expenditure growth. With regard to political economy aspects, public health care expenditures increase with the share of women elected to parliament. However, institutional restrictions for politicians, such as fiscal rules, do not appear to limit public health care expenditure growth.

1. Introduction

An ever increasing share of national income is spent on health care. This development puts continuous pressure on public budgets and poses a major challenge for economic policy makers. So far, an overwhelming majority of the literature has focused on demand and supply-side explanations for the growth of health care expenditure, such as the ageing of the population, increases in income as well as technological progress.

In this paper, we jointly investigate demand and supply-side determinants and factors identified to be of importance by the political economy literature and control for major health finance reforms. We exploit the highly decentralized health care system of Switzerland and focus on cantonal health care expenditure over a period of more than 40 years. The newly compiled data set is analyzed with the help of dynamic panel data estimation methods.

We study public health care expenditure in Swiss cantons for the following reasons. First, cantons finance about two thirds of total public health care expenditure and play a key regulatory role. Second, due to the large cantonal autonomy in designing health care policies, cantonal health care expenditure per capita varies enormously among cantons and across time. Fig. 1 illustrates the development of real public health care expenditure per capita over time per canton. For instance, the canton of Basle-City spends about six times more than the canton of Zug and clearly more than the comparable canton of Geneva in 2012, i.e., 4369 Swiss francs compared to 710 and 2571 Swiss francs per capita in real terms. Health care expenditure has developed very differently in these cantons over the last 40 years. Third, the dynamics of cantonal health care expenditure have contributed to growing concerns regarding fiscal sustainability and are thus increasingly

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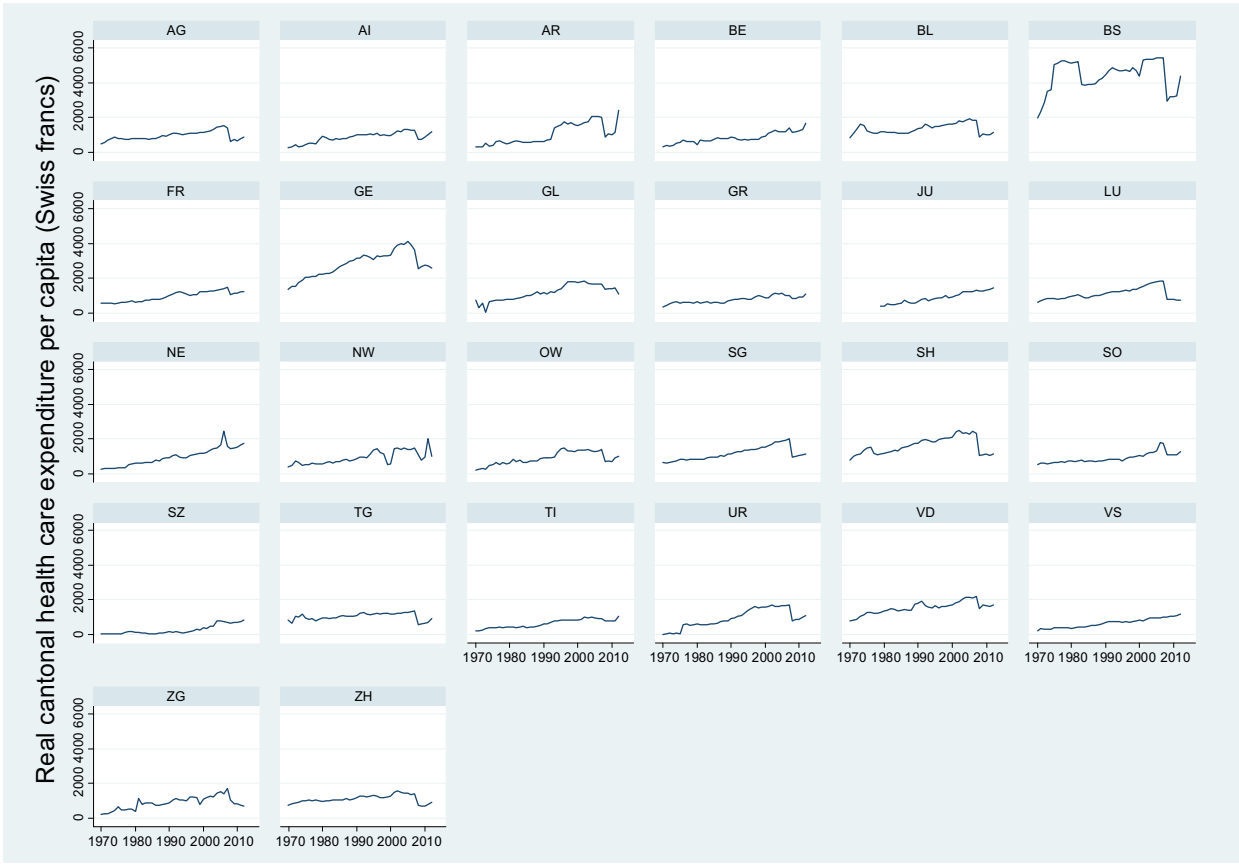

Fig. 1. Cantonal health care expenditure per capita (in real Swiss francs).
Notes: Since 2008 only cantonal net contributions to public hospitals are taken into account. This revision of the government finance statistics led to a one-time downward shift in cantonal health care expenditure due to accounting reasons.
Sources: Swiss Federal Finance Administration.

important from a public finance perspective. While cantonal health care expenditure constitutes about 1/5 of total health care expenditure in Switzerland in 2012, besides mandatory health insurance payments and comparatively high out of pocket payments, there is the longer the more a heated policy debate on how to use these public funds in a more efficient and cost-containing way. Closely related to that, since Swiss cantons (often) have fiscal rules in place, health expenditure competes with other cantonal expenditure categories and might tend to crowd them out in the medium to long term. Fourth, most public health care spending decisions are taken at the level of the Swiss cantons. Accordingly, political economy factors are likely to take effect at this level of government. Furthermore, with the analysis of cantonal health expenditure data for the period 1970–2012, we add an important time dimension as basis for the policy debate.

Based on our new dataset, we exploit the enormous variation in public healthcare expenditure across cantons between 1970 and 2012. We use dynamic panel estimation methods and control for time-invariant and canton-invariant unobserved heterogeneity. We find a positive and robust elasticity of income for cantonal health care expenditure that is close to 1. The unemployment rate is also positively related to cantonal health care expenditure growth. This first set of results reinforces the argument that macroeconomic conditions exert a considerable impact on cantonal health care expenditure growth. As regards political economy aspects, it is found that cantonal health care expenditure growth is positively associated with the share of women elected to parliament. This result suggests that women elected to parliament systematically differ in their preferences regarding the provision of public health care services. However, institutional restrictions on the fiscal decision-making power of politicians, electoral business cycles and political partisanship do not appear to matter for cantonal health care expenditure growth.

In Section 2, preparing the empirical analysis, we, first, briefly discuss the determinants of health care expenditure and relate our paper to the previous literature. Second, we briefly depict the relevant aspects of the Swiss health care system. In Section 3, the data is described and the empirical approach is presented. Section 4 presents the results. Section 5 offers a brief comparison with previous studies