

# Intercorporate guarantees, leverage and taxes

Elisa Luciano

Università di Torino, Collegio Carlo Alberto and ICER

Giovanna Nicodano

Università di Torino, Collegio Carlo Alberto and ECGI

This paper characterizes optimal intercorporate guarantees, under the classical trade-off between bankruptcy costs and taxation. Conditional guarantees, allowing the provider to maintain limited liability vis-à-vis the beneficiary, maximize joint value. They indeed achieve the highest tax savings net of default costs. We provide conditions ensuring that - at the optimum - guarantees increase total debt, which bears mostly on the beneficiary. This difference in optimal leverage between the provider and the beneficiary explains why optimal conditional guarantees (i) generate value independently of cash flow correlation (ii) are unilateral rather than mutual, at least for moderate default costs (iii) dominate the unconditional ones, that are embedded in mergers, at least when firms have high cash-flow correlation. We also endogenize the choice of the guarantor, showing that it has higher proportional bankruptcy costs and lower tax rates.

The paper presents some real-world counterparts of our results. In our stylized set-up, debt of the Parent-Subsidiary structure is higher than total debt of the two firms without guarantee. In reality, group affiliates and private equity firms appear to rely on debt more than comparable Stand Alone firms. Moreover, the interplay between tax savings and guarantees lies at the core of thin capitalization rules that are enforced in several countries (including Australia, China, Germany, Italy, the Netherlands, UK and the US).