

Free Cash-Flow, Issuance Costs and Stock Price Volatility*

Jean-Paul Décamps[†] Thomas Mariotti[‡]
Jean-Charles Rochet[§] Stéphane Villeneuve[¶]

First Draft: July 2006
This draft: September 2008

Abstract

We study the issuance and payout policies that maximize the value of a firm facing both agency costs of free cash-flow and external financing costs. We find that the firm optimally issues equity. Equity distributes no dividends until a target cash level is reached, while new equity is issued when the firm runs out of cash. We characterize the process modelling the number of outstanding shares and the dynamics of the stock prices. In line with the leverage effect identified by Black (1976), we show that both the volatility of stock returns and the dollar volatility of stock prices increase after a negative shock on stock prices.

Keywords: Issuance and Dividend Policies, Optimal Cash Management, Stock Price Volatility.

JEL Classification: G12, G35.

*We have benefited from many discussions with Bruno Biais, Catherine Casamatta, Mark Davis, Edith Ginglinger, Christopher Hennessy, Hayne Leland, Nour Meddahi, Ekaterina Voltchkova, Nancy Wallace and Mihail Zervos. We also thank seminar participants at Imperial College London, Université Aix-Marseille 2, Université Paris Dauphine and University of California Berkeley, as well as conference participants at the Second General Advanced Mathematical Methods for Finance Conference and at the Pacific Institute for the Mathematical Sciences 2008 Summer School in Finance. This research benefited from the support of the Chair *Financial Markets and Investment Banking Value Chain* sponsored by the Fédération Bancaire Française. The first and last authors are academic fellows of the Europlace Institute of Finance and thank this institution for financial support.

[†]Toulouse School of Economics (GREMAQ, IDEI).

[‡]Toulouse School of Economics (GREMAQ/CNRS, IDEI).

[§]Toulouse School of Economics (GREMAQ, IDEI).

[¶]Toulouse School of Economics (GREMAQ, IDEI).