

# THE ECONOMICS OF FINANCIAL CONSTRAINTS: HOW MUCH DOES LIQUIDITY COST?

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## Abstract

The article introduces business liquidity concept as the third (in addition to risk and return metrics) determinant of company performance. The issues discussed include the analysis of key liquidity elements and the influence of agency costs, uncertainty and market incompleteness on financial decisions. We analyze in details the firm liquidity model based on the assumption of negative marginal rate of substitution between business value and liquidity in the situation of scarce external financing.

Accounting for the complexity and novelty of the object we consider that solid analytical decomposition of corporate liquidity concept is the first worthwhile result. The breakdown into self-sufficient derivatives helps to conduct separate theoretical analysis and to find ways of managing. Approaches to the modelling of market liquidity described in the second part of the article are also of some interest. Basing on the cases that are maximally close to the current realities of financial management we analyze the consequences of breaking some key underlying assumptions of general equilibrium model. Classical corporate finance is largely based on them but post crisis economic realities don't always support. Particularly we analyze the mechanism of costly financing under uncertainty and agency. Additional possibilities of shareholder value creation arise in incomplete markets with non-anonymous investors.

From the practical application point of view it does not seem premature to discuss the fact that liquidity should gradually become a common performance metric of financial strategy and come in financial decision-making at all levels - from the board of directors to the operational financial management. With the sufficient development of a theoretical framework and experience of practical application, it would be worthwhile to incorporate liquidity, as one of the strategic development performance metrics, in to the financial reporting standards of public companies.

**Keywords:** business value, liquidity, incomplete markets, agency costs, financial constraints.

**JEL:** G30, G32

## References

1. Ivashkovskay I.V. Razvitie stekholderskogo podhoda v metodologii finansovogo analiza: garmonichnaja kompanija, *Corporativnye Financy*. 2011. № 3(19). С. 59–70.
2. Ivashkovskay I.V. Stejkholderskij podhod k upravleniju, orientirovannomu na prirashhenie stoimosti kompanii, *Corporativnye Financy*. 2012. № 1 (21). С. 14—23. ,
3. Cherkasova V.A., Teplova O. Ju. Issledovanie vlijaniya faktorov finansovyh ogranichenij na investicionnye reshenija kompanij na razvivajushhihsja rynkah kapitala, *Corporativnye Financy*. 2013. № 2. С. 5–20.
4. Aghion, P., Bolton, P. (1992), [An Incomplete Contracts Approach to Financial Contracting](#), *Review of Economic Studies*, 3(59) (1992) 473–494.
5. Bolton, P., Scharfstein, D. (1990). A Theory of Predation Based on Agency Problems in Financial Contracting, *The American Economic Review*, 1(80). (1990) 93–106.
6. [Brealey](#), R., [Myers](#), S. (2013), Principles of Corporate Finance, The Mcgraw-Hill/Irwin Series in Finance, Insurance, and Real Estate.

7. Caballero, R., [Krishnamurthy, A.](#) (2006), Bubbles and Capital Flow Volatility: Causes and Risk Management, *Journal of Monetary Economics*, 53(1) (2006) 35–53.
8. [Damodaran, A.](#) (2012), *Investment Valuation: Tools and Techniques for Determining the Value of Any Asset.*, Wiley. 3-th edition.
9. Farhi, E., Tirole, J. (2012a), Bubbly Liquidity, *Review of Economic Studies*, 79 (2012a) 678–706.
10. Farhi, E., Tirole, J. (2012b), Collective Moral Hazard, Maturity Mismatch, and Systemic Bailouts,, *American Economic Review*, 102(1) (2012b) 60–93.
11. Gilchrist, S., Leahy, J.V. (2002), [Monetary policy and asset prices](#), *Journal of Monetary Economics*, 49(1) (2002) 75–97.
12. Gromb, D., Vayanos, D. (2002), [Equilibrium and welfare in markets with financially constrained arbitrageurs](#), *Journal of Financial Economics*, 66(2–3) (2002) 361–407.
13. Hart, O.D. (1975), On the Optimality of Equilibrium when the Market Structure is Incomplete,, *Journal of Economic Theory*, 11 (1975) 418–443.
14. Hicks, J. (1967), *Critical Essays in Monetary Theory.* Oxford University Press.
15. Holmstrom, B., Tirole, J. (1997), Financial Intermediation, Loanable Funds and the Real Sector,, *Quarterly Journal of Economics*, 112(3) (1997) 663–691.
16. Holmstrom, B., Tirole, J. (1998), Private and Public Supply of Liquidity, *Journal of Political Economy*, 106 (1998) 1–40.
17. Jaffee, D.M., Russell, T. (1976), Imperfect Information, Uncertainty, and Credit Rationing, *Quarterly Journal of Economics*, 90 (1976) 651–666.
18. Keynes, J.M. (1936), *The General Theory of Employment, Interest and Money.* Palgrave Macmillan.
19. Kiyotaki, N., Moore, J. (1997), Credit Cycles, *Journal of Political Economy*, 105 (1997) 211–248.
20. Kocherlakota, R. (1996), [The Equity Premium: It's Still a Puzzle](#), *Journal of Economic Literature*, 34(1) (1996) 42–71.
21. [Koller, T.](#), [Goedhart, M.](#), [Wessels, D.](#) (2010), *Valuation: Measuring and Managing the Value of Companies.* Wiley, 5 edition.
22. Leland, H.E., Pyle, D.H. (1976), Informational Asymmetries, Financial Structure, and Financial Intermediation, *The Journal of Finance*, 2(32) (1976) 371–387.
23. Majluf, N.S., Myers, S.C. (1984), Corporate Financing and Investment Decisions When Firms Have Information That Investors Do Not Have, *Journal of Financial Economics*, 13 (1984) 187–221.
24. Mehra, R., Prescott, E. (1985), [The Equity Premium: A Puzzle](#), *Journal of Monetary Economics*, 15(2) (1985) 145–161.
25. Oliver, J. (2000), Growth-Enhancing Bubbles, *International Economic Review*, [41](#) (2000) 133–152.
26. Shleifer, A., Vishny, R. (1992), Liquidation Values and Debt Capacity: A Market Equilibrium Approach, *The Journal of Finance*, 47 (1992) 1343–1366.
27. Shleifer, A., Vishny, R. (1997), The Limits of Arbitrage, *Journal of Finance*, 52(1) (1997) 35–55.
28. Shleifer, A., Vishny, R. (2011), Fire Sales in Finance and Macroeconomics, *Journal of Economic Perspectives*, 25(1) (2011) 29–48.
29. Silva, F., Carreira, C. (2012), Do financial constraints threaten the innovation process? Evidence from Portuguese firms, *Economics of Innovation and New Technology*, 21(8) (2012) 701–736.

30. Stiglitz, J., Weiss, A. (1981), Credit Rationing in Markets with Imperfect Information, *The American Economic Review*, 71 (1981) 393–410.
31. The Economist: Dead money, *The Economist*, Nov 3rd 2012, URL: <http://www.economist.com/news/finance-and-economics/21565621-cash-has-been-piling-up-companies%E2%80%99-balance-sheets-crisis-dead>.
32. Tirole, J. (1985), [Asset Bubbles and Overlapping Generations](#), *Econometrica*, 53(6) (1985) 1499–1528.