LIQUIDITY AND FINANCIAL MARKETS*

We expect from our financial system (the collection of buyers, sellers, and intermediaries of financial assets) to work in a way that propends to the optimal allocation of resources, contributing to growth and ultimately, overall welfare of the population. In a market economy, fulfilling this goal involves, at the most primary level, the existence of institutions that prevent and control fraud (so that a market for promises may exist at all); at a second level, the existence of an adequate mix of financial instruments (so that these promises may be designed and combined to meet heterogeneous needs), and at a third level, that these assets be traded cheaply and liquidly.

Our understanding at all three levels is incomplete, but among them, probably our deepest lag is on the third. Indeed, even though liquidity is an important determinant of asset value, we do not fully comprehend how it is produced, and consequently, we cannot yet ascertain what is the most cost-effective market design.

To be sure, from an individual investor's perspective, the ability to accommodate unforeseen consumption needs without incurring major losses is valuable. From an institutional investor's perspective, the problem is not different: unexpected withdrawals will affect the value of the assets of a bank, fund or insurance company. Yet, current valuation models cannot explain this fact (Zurita, 2001).

In modern financial systems, two liquidity-producing mechanisms coexist: secondary markets for tradable securities, and banking.

In the case of tradable assets (e.g., bonds and stocks), academic research has related transaction costs to inventory and asymmetric information costs (see, for instance, the market microstructure literature started by Garman, 1976; Stoll 1978 and Kyle, 1985, or the review in O'Hara 1995). However, this research is yet to produce a tractable asset pricing model that incorporates liquidity, as O'Hara (2003) expressed it in her Presidential Address before the American Finance Association. Moreover, the analysis has typically focused on single assets.

This is why the research agenda that professors Tarun Chordia, Richard Roll and Avanidhar Subrahmanyam have recently pursued is so important. In a series of papers (2000, 2001, 2002), they shift focus from individual assets –the realm of the market microstructure literature– to the market as a whole, in order to unveil common determinants of liquidity and its relation to trading activity.

Keywords: Liquidity, Trading Activity, VaR, Best Practices *JEL Classification:* G1, G12, G21

This introduction was written by Felipe Zurita, Department of Economics, Catholic University of Chile, Email: fzurita@faceapuc.cl. I am grateful to Raimundo Soto for his comments on an earlier draft.

In their influential 2000 article they show that, for a large sample of NYSE stocks, liquidity measures –such as quoted and effective bid ask spreads, and depth– covary significantly. In their 2001 article, they find that market-wide measures of liquidity are also significantly related to trading volume. In their 2002 article they further explore order imbalance as a measure of trading activity, and find, among other regularities, that order imbalances reduce liquidity. Their article, in this volume, summarizes those findings, with an accent on the connection between liquidity and trading activity. Although they have concentrated on NYSE data, their findings are certainly relevant for Chilean markets, where illiquidity has become a critical issue.

At an academic level, the stylized facts this research is producing will certainly be a test against which future models will have to be measured: they will not only have to explain the influence of individual liquidity on an asset's price, but also consider those common determinants. Beyond hinting at the direction to produce better asset-pricing models, this research will eventually make contact with monetary theory (how aggregate liquidity shocks are propagated across different types of asset), and will also have to be considered for the regulation of financial markets.

The banking system, on the other hand, produces liquidity in a different manner: by selling precisely-defined promises of payment (deposits) that –most likely– they will be able to honor. The ability of doing so, however, is not granted, as banking crisis around the globe very often remind us. The prudential regulation of banks is aimed at maintaining and promoting this source of liquidity creation.

A crucial determinant of a bank's ability to fulfill its promises is its capacity to understand and manage risks. Internationally, this ability was cast into doubt by major scandals a decade ago, mostly involving derivative assets. Since then, regulators and market participants have produced new methods to keep track of and manage risks, and best-practice recommendations, that are expected to regain public confidence on the banking industry without having to exclude it from the derivatives markets.

José Miguel Cruz explains in his article what these best practices are, and to what extent they have penetrated the Chilean banking industry. He finds an overall modest level of compliance, following a late adoption of the principles. In particular, the most worrisome aspect relates to the low importance risk-management is given within organizations.

While the Chilean banking system has proved healthy during the economic slowdown of the last five years, it is not clear at all that the regulatory-induced shield is a cost-effective mechanism for creating liquidity. Cruz's analysis shows a picture that is inconsistent with that of a competitive, sophisticated modern system.

REFERENCES

- Chordia, T., R. Roll and A. Subrahmanyam (2000), "Commonality in Liquidity," *Journal of Financial Economics* 56, 3-28.
- Chordia, T., R. Roll and A. Subrahmanyam (2001), "Market Liquidity and Trading Activity," Journal of Finance 56, 501-530.
- Chordia, T., R. Roll and A. Subrahmanyam (2002), "Order Imbalance, Liquidity, and Market Returns," *Journal of Financial Economics* 65, 111-130.
- Garman, M. (1976), "Market Microstructure," Journal of Financial Economics 3, 257-275.
- Kyle, A. (1985), "Continuous Auctions and Insider Trading," *Econometrica* 53, 1315-1335.
- O'Hara, M. (1995), "Market Microstructure," Blackwell.
- O'Hara, M. (2003), "Presidential Address: Liquidity and Price Discovery," *Journal of Finance* 58, 1335-1354.
- Stoll, H. (1978), "The Pricing of Security Dealer Services in Securities Markets," *Journal of Finance* 33, 1133-1151.
- Zurita, F. (2001), "Recasting Liquidity as an Insurance Problem," Working Paper N° 198, Insituto de Economía, Pontificia Universidad Católica de Chile.