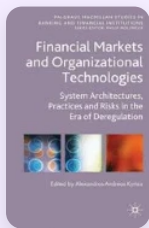


[Home](#) > [Financial Markets and Organizational Technologies](#) > Chapter

# Opening the Black Boxes of Global Finance

| Chapter

| pp 92–116 | [Cite this chapter](#)



## [Financial Markets and Organizational Technologies](#)

[Donald MacKenzie](#)


 Part of the book series: [Palgrave Macmillan Studies in Banking and Financial Institutions](#) ((SBFI))

 229 Accesses

## Abstract

In this chapter, I shall describe and advocate a 'science-studies' approach to global finance.<sup>1</sup> 'Science studies' is the generic name for a collection of humanities and social-science specialisms that examine the contents and contexts of science and technology. These specialisms are diverse: some are historical, some philosophical, some sociological, some anthropological, some draw on literary theory.<sup>2</sup> They have no simple overarching theory or methodology, so it must be emphasized that what I am discussing is *a* science studies approach, not *the* science studies approach. References to other authors studying finance from a science-studies perspective will be found in an endnote,<sup>3</sup> but the topic is still a relatively new one for science

studies, and the work done so far has only scratched the surface of what is possible. In advocating a science-studies perspective, in no sense do I wish to denigrate the contributions of other approaches. There is an exciting emergence or revival of interest in financial markets in economic sociology (e.g. Godechot 2001, 2007), anthropology (e.g. Zaloom 2006) and human geography (e.g. Leyshon and Thrift 1997); and of course international political economy has long been interested in finance (e.g. Mosley 2003). A science-studies approach is complementary to those of other disciplines, not in competition with them.

 This is a preview of subscription content, [log in via an institution](#)  to check access.

### Access this chapter

[Log in via an institution](#) →

#### ^ Chapter

**EUR 29.95**

Price includes VAT (Poland)

- Available as PDF
- Read on any device
- Instant download
- Own it forever

[Buy Chapter](#) →

#### ^ eBook

**EUR 85.59**

Price includes VAT (Poland)

- Available as PDF
- Read on any device
- Instant download
- Own it forever

[Buy eBook](#) →

#### ^ Softcover Book

**EUR 106.99**

Price includes VAT (Poland)

- Compact, lightweight edition
- Dispatched in 3 to 5 business days
- Free shipping worldwide - [see info](#)

[Buy Softcover Book](#) →

#### ^ Hardcover Book

**EUR 106.99**

Price includes VAT (Poland)

- Durable hardcover edition
- Dispatched in 3 to 5 business days
- Free shipping worldwide - [see info](#)

[Buy Hardcover Book](#) →

[Institutional subscriptions](#) →

## Preview

---

Unable to display preview. [Download preview PDF.](#)

## Bibliography

---

Austin, J. L. (1962), *How to Do Things With Words*, Oxford: Clarendon Press.

[Google Scholar](#)

Bachelier, L. (1900), 'Théorie de la Spéculation', *Annales Scientifiques de l'Ecole Normale Supérieure* third series 17: 22–86.

[Google Scholar](#)

Barnes, B. (1983), 'Social Life as Bootstrapped Induction', *Sociology*, 17: 524–45.

[Article](#) [Google Scholar](#)

Beunza, D. Hardie, I. and MacKenzie, D. (2006), 'A Price is a Social Thing: Towards a Material Sociology of Arbitrage', *Organization Studies*, 27: 721–45.

[Article](#) [Google Scholar](#)

Beunza, D. and Stark, D. (2004), 'Tools of the Trade: The Socio-Technology of Arbitrage in a Wall Street Trading Room', *Industrial and Corporate Change*, 13: 369–400.

[Article](#) [Google Scholar](#)

Biagioli, M. (ed.) (1999), *The Science Studies Reader*, New York: Routledge.

[Google Scholar](#)

Black, F. and Scholes, M. (1972), 'The Valuation of Option Contracts and a Test of Market Efficiency', *Journal of Finance*, 27: 399–417.

[Article](#) [Google Scholar](#)

Black, F. and Scholes, M. (1973), 'The Pricing of Options and Corporate Liabilities', *Journal of Political Economy*, 81: 637–54.

[Article](#) [Google Scholar](#)

Bryce, R. (2002), *Pipe Dreams: Greed, Ego, and the Death of Enron*, New York: PublicAffairs.

[Google Scholar](#)

Burgstahler, D. and Dichev, I. (1997), 'Earnings Management to Avoid Earnings Decreases and Losses', *Journal of Accounting and Economics*, 24: 99–126.

[Article](#) [Google Scholar](#)

Callon, M. and Latour, B. (1981), 'Unscrewing the Big Leviathan: How Actors Macro-Structure Reality and How Sociologists Help Them to do So', in K. Knorr Cetina and A. V. Cicourel (eds), *Advances in Social Theory and Methodology: Toward an Integration of Micro-and Macro-Sociologies*, Boston, MA: Routledge and Kegan Paul: 277–303.

[Google Scholar](#)

Cooper, D. J. and Robson, K. (2006), 'Accounting, Professions and Regulation: Locating the Sites of Professionalization', *Accounting, Organizations and Society*,

[Article](#) [Google Scholar](#)

Douglas, M. (1970), *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*, Harmondsworth: Penguin.

[Google Scholar](#)

Dunbar, N. (2000), *Inventing Money: The Story of Long-Term Capital Management and the Legends Behind it*, Chichester: Wiley.

[Google Scholar](#)

Galai, D. (1977), 'Tests of Market Efficiency of the Chicago Board Options Exchange', *Journal of Business*, 50: 167-97.

[Article](#) [Google Scholar](#)

Gemmill, G. (1996), 'Transparency and Liquidity: A Study of Block Trades on the London Stock Exchange under different Publication Rules', *Journal of Finance*, 51: 1765-90.

[Article](#) [Google Scholar](#)

Giddens, A. (1990), *The Consequences of Modernity*, Cambridge: Polity.

[Google Scholar](#)

Gieryn, T. (1999), *Cultural Boundaries of Science: Credibility on the Line*, Chicago, IL: Chicago University Press.

[Google Scholar](#)

Godechot, O. (2000), 'Le Bazar de la Rationalité: Vers une Sociologie des Formes

Concrètes de Raisonnement', *Politix*, 13(52): 17–56.

[Article](#) [Google Scholar](#)

Godechot, O. (2001), *Les Traders: Essai de Sociologie des Marchés Financiers*, Paris: La Découverte.

[Google Scholar](#)

Godechot, O. (2007), *Working Rich: Salaires, Bonus et Appropriation du Profit dans l'Industrie Financière*, Paris: La Découverte.

[Google Scholar](#)

Hayn, C. (1995), 'The Information Content of Losses', *Journal of Accounting and Economics*, 20: 125–53.

[Article](#) [Google Scholar](#)

Hong, H. and Stein, J. C. (2003), 'Differences of Opinion, Short-Sales Constraints, and Market Crashes', *Review of Financial Studies*, 16: 487–525.

[Article](#) [Google Scholar](#)

Hopwood, A. and Miller, P. (eds) (1994), *Accounting as Social and Institutional Practice*, Cambridge: Cambridge University Press.

[Google Scholar](#)

Hume, N. (2002), 'Hocus-Pocus Saves the Day', *The Guardian*, 6 September.

[Google Scholar](#)

Hume, N., Treanor, J. and Milner, M. (2002), 'FTSE Closes Below 4,000 as Bush Intervention Fails', *The Guardian*, 16 July.

[Google Scholar](#)

Kalthoff, H., Rottenburg, R. and Wagener, H.-J. (2000), *Ökonomie und Gesellschaft, Jahrbuch 16. Facts and Figures: Economic Representations and Practices*, Marburg: Metropolis.

[Google Scholar](#)

Knorr Cetina, K. and Bruegger, U. (2002a), 'Global Microstructures: The Virtual Societies of Financial Markets', *American Journal of Sociology*, 107: 905-51.

[Article](#) [Google Scholar](#)

Knorr Cetina, K. and Bruegger, U. (2002b), 'Inhabiting Technology: The Global Lifeform of Financial Markets', *Current Sociology*, 50: 389-405.

[Article](#) [Google Scholar](#)

Knorr Cetina, K. and Preda, A. (eds) (2005), *The Sociology of Financial Markets*, Oxford: Oxford University Press.

[Google Scholar](#)

Latour, B. (1987), *Science in Action*, Cambridge, MA: Harvard University Press.

[Google Scholar](#)

Leland, H. E. (1985), 'Option Pricing and Replication with Transaction Costs', *Journal of Finance*, 40: 1283-301.

[Article](#) [Google Scholar](#)

Lépinay, V.- A. (2007a), 'Decoding Finance: Articulation and Liquidity Around a Trading Room', in D. MacKenzie, F. Muniesa and L. Siu (eds), *Do Economists*

*Make Markets? On the Performativity of Economics*, Princeton, NJ: Princeton University Press: 87–127.

[Google Scholar](#)

Lépinay, V. A. (2007b), 'Parasitic Formulae: The Case of Capital Guarantee Products', in M. Callon, Y. Millo, and F. Muniesa (eds), *Market Devices*, Oxford: Blackwell: 261–83.

[Google Scholar](#)

Leung, D. (2008), 'Accounting in the Wild: An Adventure in Ethnoaccountancy', Ph.D. thesis: University of Edinburgh.

[Google Scholar](#)

Leyshon, A. and Thrift, N. (1997), *Money/Space*, London: Routledge.

[Google Scholar](#)

Lowenstein, R. (2000), *When Genius Failed: The Rise and Fall of Long-Term Capital Management*, New York: Random House.

[Google Scholar](#)

MacKenzie, D. (1990), *Inventing Accuracy: A Historical Sociology of Nuclear Missile Guidance*, Cambridge, MA: The MIT Press.

[Google Scholar](#)

MacKenzie, D. (1992), 'Economic and Sociological Explanation of Technical Change', in R. Rod Coombs, P. Saviotti, and V. Walsh (eds), *Technological Change and Company Strategies: Economic and Sociological Perspectives*, London: Academic Press: 25–48.

[Google Scholar](#)



MacKenzie, D. (2002), 'What's in the Bottle?', *The London Review of Books*, 24(9): 21-2.

[Google Scholar](#)

MacKenzie, D. (2003), 'Long-Term Capital Management and the Sociology of Arbitrage', *Economy and Society*, 32: 349-80.

[Article](#) [Google Scholar](#)

MacKenzie, D. (2004), 'Social Connectivities in Global Financial Markets', *Society and Space (Environment and Planning D)* 22: 83-101.

[Article](#) [Google Scholar](#)

MacKenzie, D. (2006), *An Engine, not a Camera: How Financial Models Shape Markets*, Cambridge, MA: The MIT Press.

[Book](#) [Google Scholar](#)

MacKenzie, D. (2007), 'The Material Production of Virtuality: Innovation, Cultural Geography and Facticity in Derivatives Markets', *Economy and Society*, 36: 355-76.

[Article](#) [Google Scholar](#)

MacKenzie, D. (2008a), 'Producing Accounts: Finitism, Technology and Rule Following', in M. Mazzotti (ed.), *Knowledge as Social Order: Rethinking the Sociology of Barry Barnes*, Aldershot: Ashgate: 99-117.

[Google Scholar](#)

MacKenzie, D. (2008b), 'End-of-the-World Trade', *London Review of Books*, 30(9) (8 May): 24-6.

MacKenzie, D. (2009), 'All Those Arrows', *London Review of Books*, 31(12) (25 June): 20-2.

[Google Scholar](#)

MacKenzie, D. and Millo, Y. (2003), 'Constructing a Market, Performing Theory: The Historical Sociology of a Financial Derivatives Exchange', *American Journal of Sociology*, 109: 107-45.

[Article](#) [Google Scholar](#)

Madhavan, A. and Panchapagesan, V. (2000), 'Price Discovery in an Auction Market: A Look Inside the Black Box', *Review of Financial Studies*, 13: 627-58.

[Article](#) [Google Scholar](#)

McMillan, J. (2002), *Reinventing the Bazaar: A Natural History of Markets*, New York: Norton.

[Google Scholar](#)

Merton, R. C. (1973), 'Theory of Rational Option Pricing', *Bell Journal of Economics and Management Science*, 4: 141-83.

[Article](#) [Google Scholar](#)

Miller, M. H. and Modigliani, F. (1961), 'Dividend Policy, Growth, and the Valuation of Shares', *Journal of Business*, 34: 411-33.

[Article](#) [Google Scholar](#)

Millo, Y. (2003), 'Where do Financial Markets Come From? Historical Sociology of Financial Derivatives Markets', Ph.D. thesis: University of Edinburgh.

Millo, Y., Muniesa, F. Panourgias, N. S. and Scott, S. V. (2005), 'Organized Detachment: Clearinghouse Mechanisms in Financial Markets', *Information and Organization*, 15: 229–46.

[Article](#) [Google Scholar](#)

Milyaeva, S. (2009), 'Making Markets, Making Laws: Non-Deliverable Currency Forwards and the Amendment to Article 1062 of the Russian Civil Code', Ph.D. thesis: University of Edinburgh.

[Google Scholar](#)

Modigliani, F. and Miller, M. H. (1958), 'The Cost of Capital, Corporation Finance and the Theory of Investment', *American Economic Review*, 48: 261–97.

[Google Scholar](#)

Mosley, L. (2003), *Global Capital and National Governments*, Cambridge: Cambridge University Press.

[Google Scholar](#)

Muniesa, F. (2003), 'Des Marchés Comme Algorithmes: Sociologie de la Cotation électronique à la Bourse de Paris', Ph.D. thesis: École Nationale Supérieure des Mines.

[Google Scholar](#)

Muniesa, F. (2005), 'Contenir le Marché: La Transition de la Crie à la Cotation électronique à la Bourse de Paris', *Sociologie du Travail*, 47: 485–501.

[Article](#) [Google Scholar](#)

Partnoy, F. (2001), 'Multinational Regulatory Competition and Single-Stock Futures', *Northwestern Journal of International Law and Business*, 21: 641-55.

[Google Scholar](#)

Partnoy, F. (2003), *Infectious Greed: How Deceit and Risk Corrupted the Financial Markets*, London: Profile.

[Google Scholar](#)

Perold, A. (1999), *Long-Term Capital Management, L.P.*, Boston, MA: Harvard Business School Publishing.

[Google Scholar](#)

Preda, A. (2006), 'Socio-Technical Agency in Financial Markets: The Case of the Stock Ticker', *Social Studies of Science*, 36: 753-82.

[Article](#) [Google Scholar](#)

Preda, A. (2007a), 'STS and Social Studies of Finance', in E. Hackett, O. Amsterdamska, M. Lynch and J. Wajcman (eds) (2007), *Handbook of Science and Technology Studies*, Cambridge, MA: The MIT Press: 901-21.

[Google Scholar](#)

Preda, A. (2007b). 'Where do Analysts come from? The Case of Financial Chartism', in M. Callon, Y. Millo and F. Muniesa (eds) *Market Devices*, Oxford: Blackwell, 40-64.

[Google Scholar](#)

Preda, A. (2009), *Framing Finance: The Boundaries of Markets and Modern Capitalism*, Chicago, IL: University of Chicago Press.

[Book](#) [Google Scholar](#)

Rosenberg, N. (1982), *Inside the Black Box: Technology and Economics*, Cambridge: Cambridge University Press.

[Google Scholar](#)

Ross, S. A. (2001), 'Neoclassical and Alternative Finance', Keynote Address to EFMA Annual Meeting.

[Google Scholar](#)

Rubinstein, M. (1985), 'Nonparametric Tests of Alternative Option Pricing Models Using all Reported Trades and Quotes on the 30 Most Active CBOE Option Classes from August 23, 1976 through August 31, 1978', *Journal of Finance*, 40: 455-80.

[Article](#) [Google Scholar](#)

Salmon, F. (2009), 'Recipe for Disaster: The Formula that Killed Wall Street', *Wired Magazine*, 23 February.

[Google Scholar](#)

Shleifer, A. and Summers, L. H. (1990), 'The Noise Trader Approach to Finance', *Journal of Economic Perspectives*, 4: 19-33.

[Article](#) [Google Scholar](#)

Shleifer, A. and Vishny, R. W. (1997), 'The Limits of Arbitrage', *Journal of Finance*, 52: 35-55.

[Article](#) [Google Scholar](#)

Taleb, N. (1998), 'How the *Ought* Became the *Is*', *Futures & OTC World*, Black-Scholes-Merton Supplement: 35-6.

Tett, G. (2009), *Fool's Gold: How Unrestrained Greed Corrupted a Dream, Shattered Global Markets and Unleashed a Catastrophe*, London: Little Brown.

[Google Scholar](#)

UBS AG (2008), 'Shareholder Report on UBS's Write-Downs', Zurich: UBS AG, 18 April, available at [www.ubs.com](http://www.ubs.com).

Underhill, G. R. D. (2000), 'State, Markets, and Global Political Economy: Genealogy of an (inter-?) Discipline', *International Affairs*, 76: 805-24.

[Article](#) [Google Scholar](#)

Valdmanis, T. (1998), 'Accounting Abracadabra: Cooking the Books Proves Common Trick of the Trade', *USA Today*, 11 August.

[Google Scholar](#)

Vogel, S. K. (1996), *Freer Markets, More Rules: Regulatory Reform in Advanced Industrial Countries*, Ithaca, NY: Cornell University Press.

[Google Scholar](#)

Vollmer, H. (2003), 'Bookkeeping, Accounting, Calculative Practice: The Sociological Suspense of Calculation', *Critical Perspectives on Accounting*, 3: 353-81.

[Article](#) [Google Scholar](#)

Weber, M. (1970), 'Bureaucracy', in H. H. Gerth and C. W. Mills (eds), *From Max Weber: Essays in Sociology*, London: Routledge & Kegan Paul: 196-244.

[Google Scholar](#)

Winner, L. (1993), 'Upon Opening the Black Box and Finding it Empty: Social Constructivism and the Philosophy of Technology', *Science, Technology, & Human Values*, 18: 362–78.

[Article](#) [Google Scholar](#)

Zaloom, C. (2006), *Out of the Pits: Trading and Technology from Chicago to London*, Chicago, IL: Chicago University Press.

[Google Scholar](#)

Zorn, D. M. (no date), 'No Surprise Anymore: Securities Analysts' Forecasts and Corporate Profit Reporting, 1981–2000', Cambridge, MA: Department of Sociology, Harvard University.

[Google Scholar](#)

## Author information

---

### Authors and Affiliations

**University of Edinburgh, UK**

Donald MacKenzie

## Editor information

---

### Editors and Affiliations

**Department of Political Science and Public Administration, University of Athens, Greece**

Alexandros-Andreas Kyrtis (Professor of Sociology) (Professor of Sociology)

## Copyright information

---

# About this chapter


## Cite this chapter

MacKenzie, D. (2010). Opening the Black Boxes of Global Finance. In: Kyrtsis, AA. (eds) Financial Markets and Organizational Technologies. Palgrave Macmillan Studies in Banking and Financial Institutions. Palgrave Macmillan, London. [https://doi.org/10.1057/9780230283176\\_4](https://doi.org/10.1057/9780230283176_4)

[.RIS↓](#) [.ENW↓](#) [.BIB↓](#)

DOI	Publisher Name	Print ISBN
<a href="https://doi.org/10.1057/9780230283176_4">https://doi.org/10.1057/9780230283176_4</a>	Palgrave Macmillan, London	978-1-349-31349-5
Online ISBN	eBook Packages	
978-0-230-28317-6	<a href="#">Palgrave Economics &amp; Finance Collection</a>	
	<a href="#">Economics and Finance (R0)</a>	

# Publish with us

[Policies and ethics](#) 

## Search

Search by keyword or author



## Navigation

Find a journal



**Publish with us**

---

**Track your research**

