

THE NEW
PALGRAVE
DICTIONARY OF
MONEY
& FINANCE

THE NEW
PALGRAVE
DICTIONARY OF
MONEY & FINANCE

EDITED BY
PETER NEWMAN · MURRAY MILGATE
JOHN EATWELL

3

N-Z

M

THE MACMILLAN PRESS LIMITED, LONDON
THE STOCKTON PRESS, NEW YORK

© The Macmillan Press Limited, 1992

Softcover reprint of the hardcover 1st edition 1992 978-0-333-52722-1

All reserved reserved.

No part of this publication may be reproduced or transmitted,
in any form or by any means, without permission.

The New Palgrave Dictionary of Money and Finance
Edited by Peter Newman, Murray Milgate and John Eatwell
in three volumes, 1992

Published in the United Kingdom by
THE MACMILLAN PRESS LIMITED, 1992
London and Basingstoke

Associated companies in Auckland, Delhi, Dublin, Gaborone, Hamburg,
Harare, Hong Kong, Johannesburg, Kuala Lumpur, Lagos, Manzini,
Melbourne, Mexico City, Nairobi, New York, Singapore, Tokyo.

Published in the United States of America and Canada by
THE STOCKTON PRESS, 1992
257 Park Avenue South, New York, NY 10010, USA

The New Palgrave is a trademark of the The Macmillan Press Limited

Library of Congress Cataloging-in-Publication Data

A Catalog record for this book
is available from The Library of Congress
ISBN 978-1-56159-041-4

British Library cataloguing in Publication Data

The new Palgrave dictionary of money and finance
I. Newman, Peter K. 1928 – II. Milgate, Murray,
III. Eatwell, John
332.03
ISBN 978-1-349-11723-9 ISBN 978-1-349-11721-5 (eBook)
DOI 10.1007/978-1-349-11721-5

Typeset by Wearset, Tyne and Wear

operating as dealers in London have instituted such systems in-house, and the recently announced 'after-hours' trading sessions on the New York Stock Exchange provide for electronic crossing of small private retail and large block or programme trades by exchange members at the prices prevailing at the close of trading on the exchange floor. None of these systems, however, provides a substitute for the price discovery process of the traditional stock exchange, although Instinet now offers users the possibility of direct, autonomous negotiations via computer over prices and quantities on a one-to-one basis with reference to bids and offers posted on its Electronic Book system.

The first use of informatics to replace organized floor market price discovery was the Wunsch Single Price Auction (SPA) system which operated under a Security and Exchange Commission exemption as an unregistered exchange from April to December 1991; in April 1992 it became the Arizona Stock Exchange. In the SPA system, traders are electronically linked to a central computer which records bid and offer amounts and prices on a screen in the form of an elementary supply and demand diagram. Orders accumulate until the time established for the periodic auction (twice daily outside NYSE floor trading hours) and traders may enter new orders or change existing orders until the time of the auction when the computer, just like a Walrasian auctioneer, determines the equilibrium price which clears the maximum number of orders. Each trader preserves anonymity while benefiting from full information concerning the outstanding orders and prices visible in the supply and demand curves given on the screen. Executed orders are charged a fee which increases exponentially with respect to the time remaining to the auction time. Costs per share are predicted to be over 60 percent lower than in trading through broker-dealer intermediaries on traditional exchanges.

Thus, while screen trading was initially used to facilitate the transmission of information in broker-dealer markets, it is now changing the way markets determine prices. The Wunsch system offers a price-discovery mechanism by substituting a discrete-time call system for the continuous-time auction system of New York or the continuous-time dealer system employed in London, while Instinet now provides a proxy for floor negotiations, but without the presence of official market dealers or specialists.

As with any technological innovation, the capital and labour requirements of stock trading would be reduced dramatically by the introduction of full screen trading. It is this aspect which provides the potential for a revolution in financial services which may lead to a global electronic coffee house which is independent of physical location and the physical presence of traders.

J.A. KREGEL

See also AUCTIONS; AUTOMATED TRADE EXECUTION; CALL MARKETS; CLEARING SYSTEMS; ELECTRONIC FUNDS TRANSFER; GLOBAL FINANCIAL MARKETS; PROGRAMME TRADING; TORONTO STOCK EXCHANGE.

scrip money. *Webster's Dictionary* defines 'scrip' as 'a small piece or scrap (as of paper)', and 'a paper currency or token issued for temporary use in an emergency'. In

practice, scrip issues were first paste-board but later were primarily metal tokens similar to government-produced coins.

The appearance of scrip in lieu of legal currency replicated the evolution of money from barter in ancient cultures. Commodity money first appeared spontaneously as a natural human adaptation to the costly transaction inconveniences of barter. Some people realized that they could trade for a good they did not want for its own sake in order to make a subsequent trade for a desired good or service. The intermediate commodity had to have nascent monetary properties, and through the process of natural selection it came to be some species of a commodity money.

Scrip, like commodity moneys, has appeared at many different times and in a variety of places unrelated to each other. It has had all the functions of a 'real' currency, but has frequently suffered pejorative labels, such as, 'bingles', 'shinplasters', or 'doolollies', because it was most often an illegitimate issue. Its illegality was not the result of a popular outcry, but was a reaction of governments to the fact that scrip being usually a private issue breached the monetary monopolies governments had initiated for themselves. Circumstantial events and government mismanagement of its assumed currency prerogative induced private households and business or financial enterprises occasionally to violate these prohibitive laws.

Scrip also appeared in relatively isolated communities, such as those connected to coal-mining and lumbering. Firms that located near the contributory raw materials their enterprises used had to build community infrastructure and act as credit intermediaries to their employees. They could do so more economically than the specialized factors that might otherwise have provided such services because they had a better perspective of the risks and uncertainties of the community's viability.

Scrip became a ubiquitous medium of exchange in the coal-mining sections of the Appalachian plateau, as well as in similar communities in the Kyushu coal fields of Japan. The typical West Virginia mining company bought its scrip coins from suppliers who produced metal tags, buttons and similar items. The company then issued the scrip to its impecunious employees but only at their request, and only to the extent of wages earned but not yet paid. Scrip issues became the proceeds of small scale, interest-free loans for \$5 or \$10, or even less. The scrip was the means by which the miner bridged the gap between his family's immediate needs and his next pay-check. He and his family could then spend the scrip at the company store. If he had any scrip left by the next pay-day, he could redeem it for conventional currency at the mining company's office.

The costs of metallic scrip in the 1920s were between one and 11 cents per unit in thousand-unit lots, and the average denomination was around \$0.25. A working balance of scrip for issue to employees cost the mining company only about one-tenth as much as an equivalent amount of legal currency. The real returns of the scrip issue (the seigniorage) were split between the company and the worker. The company offered a desirable fringe benefit, and the worker realized interest-free short-time credit.

Scrip also appeared for other causes and in other environments. Transportation companies, especially railroads but

also bridge, ferry and toll road companies, issued token scrip in minor denominations – one to ten cents – because of the dearth of official coins in those denominations during the first and second quarters of the 19th century. The US government's poorly conceived coinage laws seriously hampered issues of fractional cupro-nickel and subsidiary silver coins. Business enterprises, therefore, had to supply their own media to make change for the higher denominational bills and coins or face loss of sales. Their scrip tokens would promise redemption in services rendered or commodities: 'Good for one fare across the Ohio River', or, 'Good for one beer at McDuffy's Bar'. As long as the scrip-issuer had the incentive and the means to stay in operation as a cost-recovering enterprise, redemption of its scrip was assured.

Private scrip also appeared when ordinary fractional coins were inflated out of existence by a government policy that flooded the economy with issues of paper money. If the nominal monetary values of the circulating fractional coins were only slightly greater than the coins' commodity market values, the inflationary quantities of paper money would quickly push the market prices of the coins above their monetary values. On such occasions, such as in the northern United States in the summer of 1862, the fractional coins would immediately disappear from circulation. Scrip then appeared.

Municipalities also issued scrip in frontier territories especially where state constitutions and laws prohibited banks, such as in mid-19th-century Iowa. This practice was also prevalent in colonial America. Any political sub-division with the power to tax has a redemption medium for its issues because it must offer to the holder of the scrip redemption in the payment of taxes and other governmental fees.

Scrip appeared in the United States as late as 1935 when local governments issued it to pay teachers. Chambers of commerce also issued it when local banks failed; small stores issued it as a means of competing with chain-stores; and charitable organizations issued it to needy families so they could buy 'surplus' goods. Most of this latter-day scrip was linked to dated stamp schemes that required the holder of the note to affix a two or three cent stamp at specified times. This tax feature greatly reduced the utility of the scrip and its circulation.

Reliable records of scrip's existence are few and far between because no one had an incentive to preserve them. Holders would cash it in, when the scrip's immediate utility was past, for conventional currency. Suppliers, for whom the scrip was an outstanding demand obligation, would have to redeem it first when closing their enterprises or merging with another.

Nonetheless, enough specimens of scrip, particularly metallic scrip, remain to provide certain conclusions about its use. First, every scholar who has examined its appearance seems to have been unaware of scrip's existence in other times and other places. Joel Harper, for example, in his study of depression scrip treated it as a unique phenomenon in spite of the fact that coal-mining scrip flourished for 50 years in West Virginia! And researchers who examined coal mining scrip were apparently unaware of the municipalities that issued it in frontier communities, and of the transportation companies that issued it before the Civil War.

Market constraints fixed the quantity of scrip issue with-

out recourse to redemption in legal money. Both the 'buyer' of scrip – the person who accepted it for services rendered – and the 'seller' who issued it had economic motivation to ensure the scrip's purchasing power. The coal miner, for example, knew what the scrip would buy at the company store, and the coal mine operator knew how many labour-hours of product the scrip was worth in wages paid. Had either one doubted its real value, the scrip would either not have been requested or issued.

Scrip issues, since they were endogenous to the private sector, returned seigniorage profits to the issuer and user and not to the government. Governments therefore would tolerate the practice only so long as the scrip appeared in special circumstances and posed no significant threat to the state's coinage monopoly. Paradoxically, scrip issues served to insure the payments system from governmental coinage failures. It served as 'the last resort' when the state's monetary machinery broke down.

RICHARD H. TIMBERLAKE

See also ACCEPTABILITY, MEANS OF PAYMENT AND MEDIA OF EXCHANGE; COLONIAL AND STATE ISSUES OF PAPER CURRENCY IN NORTH AMERICA; COINAGE, DEVELOPMENT OF; COMMODITY MONEY; CURRENCIES; FRACTIONAL CURRENCY; SEIGNIORAGE.

BIBLIOGRAPHY

- Brown, S.E. 1978. *Scrip*. Berryville, Virginia: Virginia Book Company.
- Caldwell, W. 1949. *Coal Company Scrip*. Montgomery, Virginia: War Printing Co.
- Carothers, N. 1930. *Fractional Money*. Reprinted, New York: A.M. Kelley, 1967.
- Doddrill, G. 1971. *20,000 Coal Company Stores in the United States*. Pittsburg: Duquesne Lithographing Co.
- Harper, J.W. 1948. *Scrip and Other Forms of Local Money*. Unpublished doctoral dissertation. University of Chicago.
- Newmark, J. 1980. Tokens as documents of the Industrial Revolution. *A History Workshop* 9.
- Pauer, E. 1979. Episodes from Asian monetary history. Money substitutes in the Japanese coal-mining industry. *Asian Monetary Monitor* 36, September–October: 36–41.
- Roberds, W. 1990. Lenders of the next-to-last resort: scrip issue in Georgia during the Great Depression. *Federal Reserve Bank of Atlanta Economic Review* September–October: 16–30.
- Timberlake, R.H., Jr. 1981. The significance of unaccounted currencies. *Journal of Economic History* 41(4), December: 853–66.
- Timberlake, R.H., Jr. 1987. Private production of scrip-money in the isolated community. *Journal of Money, Credit, and Banking* 19(4), November: 437–47.
- Trantow, T.N. 1978. *Catalogue of Lumber Company Store Tokens*. Ellensburg, Washington: Trantow, 1978.
- United States Department of Labor, Bureau of Labor Statistics. 1933. Cooperative self-help activities among unemployed. *Monthly Labor Review* 36(3–6), Washington: Government Printing Office.
- Woolridge, W.C. 1970. Every man his own mint-master. Chapter 3 of *Uncle Sam, the Monopoly Man*, New Rochelle, New York: Arlington House.

SDR. The SDR (special drawing right) was originally conceived in the 1960s as an official reserve asset that would be both supplement to and substitute for the US dollar and,