Chapter 18
Electronic Funds Transfer Systems and the Landscapes of Global Finance

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ABSTRACT

Electronic funds transfer systems (EFTS) are the primary means by which capital moves through the world economy, including real time gross settlement systems for handling international payments as well as foreign exchange transactions. This paper starts by noting how the world of the Bretton-Woods system differed from the hypermobile, digitized world that followed. Next, it summarizes some major public and private EFTS networks and the repercussions for capital markets, stock exchanges, and foreign exchange markets. Third it summarizes how EFTS challenge national monetary controls and the implications. Finally, it points to the centrality of EFTS in the emergence and growth of offshore banking centers.

INTRODUCTION

Electronic funds transfer systems (EFTS) comprise the architecture of global capital markets, foreign exchange markets, and transactions payments, and form part of the profoundly important shift into digital money that began in the late 20th century (Schiller, 1999). Aided by a massive worldwide network of fiber optics, international banks and speculators can shift significant sums around the world at a moment's notice, wrecking havoc with national monetary controls. As a result, the mounting velocity of global capital has accelerated to unprecedented speeds: freed from many technological and political barriers to movement, capital has become not merely mobile, but *hypermobile* (Corbridge, Martin and Thrift, 1994; Cohen, 1998). EFTS, therefore, are not simply economic in nature, but have important public policy ramifications (Walker, 1978; Solomon, 1997b).

Since their first signs of existence in the 1970s, EFTS have spawned a copious literature, often utopian and technologically determinist in nature. By fomenting a "paperless economy,"

DOI: 10.4018/978-1-61520-611-7.ch018

EFTS, which include business-to-consumer and business-to-business transactions, were assured to provide relief from growing mountains of paper transactions, reduce transactions costs, increase the velocity of money, improve capital market efficiency, and generate economies of scale in finance (Richardson, 1974; Colton, 1980; Gallagher, 1987; Kirkman, 1987). The reality has been more complex.

This essay explores the economic and spatial implications of EFTS. It opens by briefly summarizing the world financial system prior to the birth of electronic money. Second, it reviews the major public and private EFTS systems, emphasizing how digital money was freed to roam the world at the speed of light. Third, it focuses on the challenge to national sovereignty that EFTS pose by progressively undermining the capacity of central banks to control national money supplies. Fourth, it points to the new geographies of finance unleashed by electronic money as found in the growth of offshore financial centers around the world.

FINANCE BEFORE EFTS

Prior to the rise of EFTS, global finance was a relatively placid world. Under the **Bretton-Woods system** from 1947 to 1973, there were few exchange rate fluctuations; most currencies were pegged to the U.S. dollar, which was, in turn, was pegged to gold, at $35/ounce. Currency appreciations or depreciations reflected government fiscal and monetary policies within relatively nationally contained financial markets in which central bank intervention was effective. Trade balances and foreign exchange markets were strongly connected: rising imports caused a currency to decline in value as domestic buyers needed more foreign currency to finance purchases. Rising exports had the opposite effect, raising the price of domestic currencies on the international market. Currency fluctuations figured prominently in rectifying trade imbalances. The largely unregulated Euromarket was also important to this system.

The system ended abruptly with the U.S. abandonment of the gold standard in 1971 and the collapse of the Bretton-Woods system in 1973 (Leyshon, 1992; Leyshon and Thrift, 1997; Strange, 1994). Hereafter, supply and demand would dictate the value of a state's currency. Soon currency exchange became the world's largest industry by volume: roughly $4 trillion in electronic funds crossed national borders each day in 2007, orders of magnitude more than the total value of international trade in goods.

THE BIRTH OF EFTS

Capital markets worldwide were profoundly affected by the digital revolution, which eliminated transactions and transmissions costs for the movement of capital much in the same way that deregulation and the abolition of capital controls decreased regulatory barriers (Batiz and Woods, 2002; Solomon, 1997a). Banks, insurance companies, and securities firms were at the forefront of the construction of an extensive network of telecommunications networks, particularly a seamlessly integrated worldwide skein of fiber optics lines, much of which forms the backbone of today's Internet (Langdale, 1985; Warf, 1995). This infrastructure was decisive in enabling the birth of EFTS, which comprise the nervous system of the international financial economy and allow banks to move capital around a moment's notice, arbitrage interest rate differentials, take advantage of favorable exchange rates, and avoid political unrest.

One of the primary forms that EFTS take is **Real Time Gross Settlement (RTGS) systems** (O'Mahony et al., 2001), which handle money flows among financial institutions and governments. The largest of these is the U.S. Federal Reserve Bank's Fedwire system, which allows any depository institution with a Federal Reserve