

EXCHANGE RATE REGIMES

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Keywords: Adjustment, Arbitrage, Autonomy, Beggar-thy-neighbor policies, Capital mobility, Commitment, Convertibility, Credibility, Domestic Credit Expansion, Demand management, Dirty (Managed) Float, Discipline, Economic fundamentals, Exchange rate, Exchange risk, Expectations, Expenditure switch, External balance, Fixed (pegged) exchange rates, Flexible (floating) exchange rates, Fundamental disequilibrium, Gold points, Gold standard, Gold exchange standard, Hedging, Hume, David, Incipient capital flows, Insulation, International competitiveness, International interdependence, International reserves, J-curve, Managed (Dirty) float, Menu costs, Mercantilism, Monetary adjustment, Moral hazard, Official intervention, Open market operations, Portfolio balance, Portfolio substitutions, Price-Specie-Flow adjustment process, Real exchange rate, Real money balances, Sovereignty, Speculation, Stabilization policy, Stabilizing expectations, Sterilization, Transmission, Valuation effect, Volatility

Contents

1. Introduction
 2. The Market for Foreign Exchange
 - 2.1. Fixed Exchange Rates: Stable Prices
 - 2.2. Floating Exchange Rates: Monetary Autonomy
 3. Exchange Rates and Macroeconomic Stability
 - 3.1. The Baseline Case
 - 3.2. Financial Integration
 - 3.3. Stabilization Policy
 4. Vexatious Issues in Adjustment
 - 4.1. Sticky Prices
 - 4.2. Sterilization
 - 4.3. Discipline
 5. Conclusion
- Acknowledgements
Glossary
Bibliography
Biographical Sketch

Summary

The various exchange rate regimes form a spectrum of alternative arrangements of varying degrees of flexibility. This spectrum is bounded by the extremes of rigidly fixed and perfectly flexible rates. Although these limiting scenarios are rarely observed in reality, their study provides instructive insights into phenomena such as adjustment, the transmission of disturbances, and the impact of economic policies. While economic outcomes are sensitive to the nature of the prevailing exchange rate arrangements, they are also influenced by structural characteristics of the national and international

environment, such as the degree of international capital mobility. Consequently, no single exchange rate arrangement stands out as superior in all circumstances. The resulting plurality is evident in the fact that, of the countries in the world, some 67 retain some form of pegged exchange rate, 16 permit “limited flexibility,” and 95 have “more flexible” arrangements. (See Table 1, *The Balance of Payments and the Exchange Rate*).

A recurrent theme in the debate over exchange rate regimes is the concern to restore monetary autonomy to national economies and to insulate them from adverse external influences. It is argued here that such concerns are fundamentally misplaced: unfettered national autonomy is incompatible with economic openness, and its restoration would require a retreat into strict insularity. At the same time, attempts to selectively extract the benefits from international interaction undermine the viability of an open international order. Exchange rates are instruments that link cross-border prices and yields, not magic tools for the resolution of inherent tensions between domestic objectives and external commitments. Only sound institutions and prudent policies can resolve such conflicts and produce stable exchange rates and external balance.

1. Introduction

Superficially, the exchange rate performs the function of a technical coefficient that converts prices quoted in different currencies into a common denomination. As such, its significance would be akin to the conversion of, say, centimeters into inches. Unlike the competing standards of distance measurement, however, the standards for setting prices in separate currencies are not grounded in any universally agreed objective reference measure. Consequently, exchange rate changes may alter the “real” relativities between prices expressed in different currencies, with potentially wide-ranging ramifications for national economic performance and welfare. Because the manner of exchange rate determination influences the nature and extent of economic repercussions, and the discretionary powers at the disposal of national policy makers, the difference between alternative exchange rate regimes extends far beyond technicalities to matters of economic substance.

The experience of the twentieth century provides ample illustration of the controversial nature of exchange rate arrangements. The period is bounded by fairly close approximations to each of the extremes of fixed and floating rates. Each regime has received acclaim for promoting systemic stability, retrospectively in the former case, prospectively in the latter. At the beginning of the twentieth century, the gold standard was in its heyday. It provided a fixed rate regime in which adjustment to external imbalances was induced automatically by international transfers of gold. Anchored to a predetermined price of gold, exchange rates were fixed, right up to the transaction costs of international gold shipments. The (sum of the) costs of importing and exporting gold defined a narrow band around the fixed price of gold. Exchange rate variations within this band provided a buffer that absorbed transitory disturbances at home and abroad. Larger shocks precipitated international gold movements. Since gold constituted the monetary medium, or served as backing for national fiduciary money, such international gold transfers set in train automatic processes of monetary expansion and contraction at home and abroad. The task of the national monetary authorities was straightforward,

value-free, and immune to the influence of vested interests. All governments had to do was maintain convertibility of the fiduciary domestic currency at the fixed price of gold.

The latter part of the twentieth century was characterized by a notable shift in favor of exchange rate flexibility. During its last decade, the number of countries that have floated their currencies nearly tripled, from 38 in 1988 to 101 in 1998. In a free float, exchange rates are determined by the unfettered interaction of supply and demand in the market for foreign exchange. Exchange rate changes provide price signals that guide the process of domestic adjustment. Market forces operating in a well-developed and active foreign exchange market ensure that determination of exchange rates is straightforward, value-free, and immune to the influence of vested interests. The function of national monetary authorities is simply to acquiesce in a “clean float” by desisting from interference in the market for foreign exchange. A highly acclaimed side benefit of this arrangement is the averred restoration of monetary autonomy, as authorities are relieved of the obligation to commit monetary policy to the maintenance of convertibility of national currencies at a predetermined price.

Between the opening and closing phases of the twentieth century, respectively characterized by these relatively pure extremes of exchange rate regimes, the world experienced a variety of intermediate exchange rate arrangements. The gold standard was abandoned in 1914. From the beginning of the First World War (1914-1918), through the interwar period, and up to the end of the Second World War (1939-45), there was extensive recourse to exchange controls by national governments, some experimentation with exchange flexibility, and an unsuccessful attempt, in 1925, to restore the gold standard. In 1946 a gold exchange standard was established, with the US dollar as the principal international reserve asset. Anchored to a fixed dollar price of gold (US \$35 per ounce), other currencies were pegged to the dollar, with provision for internationally agreed parity changes in the event of “fundamental disequilibria.” This pegged exchange rate system was eventually abandoned in 1973 in favor of floating rates among the major currencies. Simultaneously with the progress towards greater global exchange rate flexibility, pegging of exchange rates was resumed on a regional basis. Most notably, the European Monetary System (EMS) was established in 1979, and the goal of currency union was eventually achieved in 1999 with the formation of the European Monetary Union (EMU). Contemporaneously, the Achilles heel of exchange flexibility was badly struck, and prominently brought into view, by the currency crises of the last decade of the century, provoking sporadic calls for a return to fixed rates.

The diversity of exchange rate arrangements, vacillation in advocacy, and disparity in contemporaneous regime switches during the course of the last century attest to the openness of the issue of alternative exchange rate regimes. Central to this irresolution is the conflict between the desire for national economic sovereignty on the one hand, and the externally imposed constraints on economic management in open economies on the other. After the chastening experience of recent history, that is, the experience of persistent disequilibria under fixed rates and of disconcerting volatility under floating rates, there is increasing acknowledgement that no single exchange rate arrangement is optimal for all times and all places.

2. The Market for Foreign Exchange

A national currency's exchange rate is the price at which it is traded in the foreign exchange market. Monetary assets of different denomination accrue as proceeds from cross-border sales, and are required for cross-border purchases. Money denominated in a foreign currency is of no intrinsic use to a transactor. Its value derives from the command it bestows over real resources or financial assets priced in that currency. Even as a store of value, money is inferior to other assets. Rational transactors seeking a safe haven in a stable foreign monetary system desire to hold expatriated wealth in the form of non-monetary, income-yielding assets, unless dissuaded by onerous transactions costs or legal proprieties. It follows therefore, as a first approximation, that the demand for foreign exchange is derived from the demand for goods and assets priced in foreign currency. Analogously, the supply of foreign exchange is derived from the demand by owners of foreign currency for goods and assets priced in the domestic currency. Hence, demand and supply in the foreign exchange market are largely determined by the factors that influence the demands for cross-border purchases of goods and assets. These factors are not confined to the variables that directly influence cross-border flow demands. They also include considerations that influence portfolio balance behavior, since flow demands for assets are determined indirectly by desired asset holdings relative to actual stocks.

Unrestricted interaction between the demand for and supply of foreign exchange determines the market clearing level of the exchange rate. Clearing of the foreign exchange market implies equality of the value of cross-border flow payments and receipts, whether measured in domestic currency or in foreign exchange, converted at the market-clearing rate. Equality of flow payments and receipts, in turn, implies equality between the value of cross-border sales of goods and assets, and the value of such purchases from abroad. It hence satisfies the relevant budget constraints.

Changes in cross-border flow demands and supplies of goods and assets cause the market clearing price of foreign exchange to adjust. Excess demand drives the price up until the excess is eliminated. An increase of the exchange rate (defined here as the domestic currency price of foreign exchange) increases the domestic currency value of all foreign price quotations instantaneously by the same proportion. The change in the domestic currency-equivalent prices may precipitate revisions of portfolio balance assessments and original transaction plans for goods that induce further shifts of the demand and supply for foreign exchange, and commensurate movements of the exchange rate. The new market clearing value of the exchange rate is once again determined by the requirement of equality between the flow demand and supply of foreign exchange. The more volatile are portfolio balance behavior and transaction plans, the more volatile is the exchange rate. But, no matter how volatile, if left to the free reign of market forces, the exchange rate moves in conformity with the requirements imposed by budget constraints to ensure equality of cross-border flow payments and receipts.

In markets for goods, the exchange rate determines relative prices such as the relative price of exports, i.e. the terms of trade, the relative price of traded goods, or relative national price levels. Changes in relative prices precipitate revisions of optimal

consumption and production plans by motivating substitutions in favor of less expensive goods and inputs, respectively. These adjustments are costly, and they make planning difficult if price-movements are not foreseeable with confidence. Some transactors may not enjoy the flexibility to respond to the opportunities afforded by changing price configurations. If exchange rate changes are reversed in short order, then repositioning and the associated costs have to be borne again with the undoing of the initial adjustment. Adjustment costs increase disproportionately with the volatility of prices, squeezing the profitability of enterprise, and potentially promoting instability of employment and output. In short, exchange rate changes impose real costs on the economic system, and their frequent reversal entails avoidable waste of real resources.

In markets for assets, exchange rates operate through variations in relative yields. Valuation effects of exchange rate changes generate windfall capital gains and losses that augment the income earnings from assets. Changes in expected yield differentials motivate portfolio substitutions and incipient capital flows that shift the demand and supply schedules for foreign exchange. The response of the exchange rate feeds back into relative yield assessments to modify the excess demand for foreign assets. The market clearing level of the exchange rate is determined by the requirements of portfolio balance, while market clearing transactions in foreign exchange ensure that cross-border capital flows comply with the relevant wealth constraints. High yield sensitivity of desired asset holdings, together with low transaction costs, renders portfolios extremely sensitive to changes in expected yields. It follows that unstable expectations can induce massive volumes of incipient capital flows, with few obstacles to rapid reversal. (See *Determinants of the Balance of Payments and Exchange Rates*)

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Biographical Sketch

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