ARE FIXED EXCHANGE RATES THE PROBLEM AND FLEXIBLE EXCHANGE RATES THE CURE?

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THE FACTS VS. THE THEORY OF FLEXIBLE EXCHANGE RATES

Since the breakdown of the Bretton Woods system in 1973, orthodox economists have promoted the conventional view that freely fluctuating exchange rates in a laissez-faire market system are efficient. Every well trained mainstream economist, whose work is logically consistent with classical theory "knows" that the beneficial effects of a freely flexible exchange rate are:

- 1. the impossibility of any one country running a persistent balance of payments deficit;
- 2. that each nation may pursue monetary and fiscal policies for full employment without inflation independent of the economic situation of its trading partners;¹ and
- 3. that the flow of capital will be from the rich creditor (developed) nations to the poor debtor (less-developed) nations. This international capital flow from rich to poor nations depends on a classical belief in the universal "law of variable proportions" that determines the real return to both the capital and labor factors of production. Since rich countries have larger capital-to-labor ratios than poor nations, the law of variable proportions indicates that the real return to capital should be higher in the poor nations where capital is relatively more scarce. Capital, therefore, should flow into the poor nation until the return on capital is equal in each country. The effect of this hypothetical classical international capital flow is to encourage more rapid development of the lesser-developed countries and, in the long run, a more equitable global distribution of income and wealth² and a convergence of growth rates among all the nations in the global economy.

Since, in classical theory, capital earns a higher return where it is relatively more scarce, investment projects in poor nations financed by this hypothesized freemarket capital flow from rich to poor nations should generate sufficient sales and foreign earnings for the lesser-developed countries to repay the capital loans. If one believes this classical conventional wisdom, international capital flows are temporary³ and self-liquidating.

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The facts since the breakup of Bretton Woods are not consistent with these classical Panglossian promises. First, since the oil shock of 1973 and continuing through the end of the 20th century, many Latin American nations and African non-oil producing nations have experienced persistent deficits in their balance of payments. Second, since the late 1970s, the major trading nations of the developed world have been under increasing pressure to coordinate their monetary and fiscal policies. For example in September 1987 the United States and Germany publicly clashed over incompatible monetary policies. The great October 1987 crash of world financial markets followed. This frightening experience reinforced the idea among the central bankers of the developed nations that if they didn't all hang together they would all hang separately. Third, in recent years, flight capital has drained resources from the relatively poor nations toward the richer ones resulting in a more inequitable redistribution of income and wealth globally as well as within many nations.

FIXED VS. FLEXIBLE RATES AND ASSET HOLDINGS

In some "fixed" exchange rate systems, central banks agree to intervene in the exchange market only after the exchange rate moves by a specified (but usually small) percent. For example, during the 1980s, in the currency arrangement known as the European Monetary System (EMS), France, West Germany, the Netherlands, Ireland, Belgium and Denmark pledged, at least in the short run, to prevent their currencies from rising or falling against each other by more than 2.25 percent.⁴ To maintain the 1980s EMS fixed rate system, the central bank of each member nation entered into an agreement to intervene in the market to limit the movement of the exchange rate.

The success of maintaining a conventional fixed rate system requires that the public be convinced that the central bank that actively intervenes in the market has adequate international reserve assets to "make" the market price. If the reserve holdings of the intervening bank are perceived as being inadequate, the market sees selling the currency that is being defended as a "one-way" bet to success. The only defense against this situation requires the willingness of foreigners or international agencies such as the IMF to lend reserves to the besieged central bank.⁵ Almost always such loans come with strings attached that depress the domestic real economy.

In most fixed exchange rate systems, there is, of course, a modicum of flexibility within a small range around the fixed rate before any central banks step in to intervene. Even under the gold standard, exchange rates could fluctuate by a few percentage points between the gold export point and the gold import point. In the normal course of events, slight imbalances in trade due to seasonality, random causes, variations in stockpiling, or phases of the business cycle can cause some oscillations in international payment inflows and outflows. These variations will affect the spot market demand and supplies of the currencies of the trading partners leading to some weakening of the exchange rate for nations running a payments deficit. If the public perceives this weakening as a temporary aberration, a spot rate decline will provide profit opportunities for comptrollers of multinational corporations (and others who engage in international trade and finance). If the weakening is temporary

then buying more of the weaker currency to hold and selling some of their holdings of the stronger currency will generate a profit when the temporary aberration is over and the exchange rate reverts back to its "normal" price. These portfolio transactions create market forces that tend to move the price back toward the original fixed exchange rate after the "temporary" decline.

The rationale for these profitable portfolio transactions is easily illustrated. Suppose currency A's exchange rate declines by 1 percent. The comptroller of the XYZ multinational corporation, knowing she has a contractual payment in terms of A's currency in the near future, will have to decide whether to buy currency A on the spot or at the future commitment date. The weaker the exchange rate compared to the "normal" rate, the greater the incentive to purchase currency A on the spot. This will mean substantial savings compared to the normal exchange rate as long as there is complete confidence in the ability of the central bank to maintain the normal rate.⁶

Whenever an actual exchange rate movement is perceived to be temporary and short-lived, the elasticity of expectations will be approximately zero. Market perturbations that are expected to be temporary and short-lived set loose forces that restore the normal exchange rate with a minimum of central bank direct intervention.

In a flexible exchange rate system, however, if a 3 percent weakness of currency A occurs, no one can be sure whether the rate will move further away from the original rate or in the reverse direction. If international transactors are on average split evenly (in terms of payment commitments) between those who think the weakness is temporary (inelastic expectations) and those who think it will worsen (elastic expectations), there will be no adjustments in the leads and lags of private trade payments. If the preponderant market view is that the current weakness in the exchange rate is a signal of still larger declines to come, the elasticity of expectations is elastic. The leads and lags in private sector payments will then tend to reinforce the current decline.

Elastic expectations create instability and induce a process of cumulative exchange rate decline. As Hicks has noted:

Technically, then, the case where elasticities of expectations are equal to unity marks the dividing line between stability and instability. A slight disturbance will be sufficient to make it pass over to instability ... Thus even when elasticities of expectations are equal to unity, the system is liable to break down at the slightest disturbance. [1946, 224; see also pages 205-206, 252-52, 264-66]

If there is a perception of permanent weakness in an exchange rate in either a fixed or flexible rate system, the public's uncertainty about the future value of A's currency tends to rise and the elasticity of expectations has a propensity to become more elastic. The public will reduce holdings of transactions and precautionary balances of the weakened currency and substitute either other currencies that are perceived to be stronger or other internationally marketable assets (for example, gold) whose value in terms of currencies in which future contractual commitments are denominated is expected to increase. This may induce others, including residents of

the country, who are holding positions in assets in that nation with the depreciating currency to fear the future and therefore execute a fast exit strategy to a perceived safe harbor in another country. The resulting "hot money" outflow can cascade onto the foreign exchange market and overwhelm the market maker. The more flexible the exchange rate system is perceived to be, therefore, the more likely an apparent weakness in a currency will induce perceptions of greater uncertainty about the ability of that currency to maintain its value relative to other currencies and the more probable those private sector liquid asset holders will adopt a fast exit strategy and abandon the weakened currency as running and reserve assets.

Individuals often abandon a currency for transaction and precautionary reasons, and not necessarily for the prime purpose of speculation. They may have no idea whether the market is properly evaluating the possibility of a further market decline in the weakened currency, but they will sleep better at night if they transfer more of their precautionary holdings to a safer liquidity time machine. Consequently, these individuals may search out a currency that they think will be a safe harbor if the market for foreign exchange becomes volatile. The resulting movement to other currencies accentuates the weakness of the threatened currency and fosters a fear of further depreciation. This can result in a bandwagon effect until either some event or some official pronouncement encourages individuals to believe that the winds of change are moving in a different direction.⁷

In an uncertain world where unforeseen changes are inevitable, an announced flexible exchange rate system must increase fear of significant exchange rate movements for any given exogenous disturbance. This fear creates disincentives for longduration international commitments by international traders. It also encourages shortterm precautionary and speculative capital movements as expectations about future exchange rates determine today's exchange rate. Our current expectations about the future are anchored only by conventions.

The essence of this convention—though it does not, of course, work out quite so simply—lies in assuming that the current state of affairs will continue indefinitely, except in so far as we have specific reasons to expect a change. This does not mean that we really believe that the existing state of affairs will continue indefinitely. We know from extensive experience that this is most unlikely. [Keynes, 1936, 152]

The existence of credible State-sponsored institutions "guaranteeing" continuity and orderliness in economic markets will create expectations of stability in the foreign exchange market. Building such institutions positively affects the psychology of participants in financial markets. If dependable stabilizing institutions are absent from a market, expectations can become unhinged even by ephemeral (from hindsight) events. Spot market prices can fluctuate violently, or temporarily, and pause at any value until the next agitating event happens. And violent volatility in the spot price of any specific financial asset reduces the liquidity value of that asset and thereby encourages a rush out of that asset and into others such as cash that are perceived as safe harbors. These psychological aspects of market valuations imply than an unconventional fixed exchange rate system has a better chance of success than a conventional system that requires the central bank with the depreciating currency to intervene by selling its foreign reserves. In an unconventional system, the central bank with the appreciating currency intervenes by buying the money of the nation with the falling exchange rate until the exchange rate returns to its pre-agreed fixed rate range.⁸ If for example, nation A's currency rose more than 2.25 percent against the nation B's money, A's central bank would be pledged to buy nation B's money directly in the market. By selling its own currency without a limit, nation A can ensure the exchange rate's return to its agreed-upon fixed rate.

Despite the obvious success of such an unconventional system, it is unlikely to be widely adopted because the nation with the appreciating currency has surrendered national control over its outstanding money supply. Most nations fear giving up their sovereign right to limit the growth of the domestic money supply, and this fear is rationalized by the classical monetarist neutral money axiom. Consequently this variant of a fixed exchange rate system has rarely been discussed much less put into operation.

Nations find it easier to agree on a conventional system where the central bank of any nation with a declining exchange rate steps into the market and actively buy its own money with its foreign reserves. If the central bank's reserves are sufficient, the exchange rate will be stabilized at the fixed rate zone. If, however, the central bank runs out of reserves, it will be forced to withdraw from the fixed exchange rate system unless the nation obtains reserves from other central banks, usually via "swaps."⁹

THE EFFICIENT MARKET HYPOTHESIS AGAIN

The classical efficient market hypothesis is in direct contrast to Keynes' belief that a freely flexible market price system can generate psychological beliefs creating volatility in market evaluations of financial assets, which can then violently depress the real economy. The classical analysis avoids this possibility by presuming that all relevant information about "economic fundamentals" regarding future demand and supplies currently exists and is available to market participants. This information is embodied in the historical market database and current market price signals, and all rational agents make decisions based on this available information. Acting in their own self-interest, rational agents will force the market to establish the "correct" equilibrium exchange rate. Observed variations around this market equilibrium rate can be attributed to random shocks that will quickly be dampened down by the alert action of informed agents. In this classical explanation it is implicitly assumed that the observed dispersion of prices around the calculated moving average (equilibrium) price does not affect future trends by causing a significant volume of false trades, bankruptcies, and other events that can rewrite the future path of the economy.

The widespread acceptance of the efficient market hypothesis has driven Keynes' psychological liquidity preference approach to the formation of spot market evaluations from most academic discussions of financial market performance. Neverthe-

less, there is mounting empirical evidence of both a short-run and long-run nature that behavior in real world financial markets is incompatible with the efficient market theory. Shiller, for example, has examined the long-run relationship between real stock prices and real dividends in the United States from 1889 to 1981 and concluded that "the volatility of stock market price indices appears to be too high to accord with the efficient market model" [1984].

If the efficient market theory is not applicable to real-world financial markets, movements in exchange rates can generate their own momentum. Once rapid movements in exchange rates become widely expected, any nation's currency can become subject to a "flight of capital"—a real world phenomenon without an obvious theoretical counterpart in a classical model. On the other hand, international flight capital is a readily understandable phenomenon if one uses Keynes's psychological liquidity preference approach to financial markets. Flight capital is the open economy model equivalent of a bearish surge out of securities because of an expected decline in the spot price in a closed economy model.

In the absence of credible financial institutions whose explicit function is to maintain orderliness *and* limit the range of movement in financial asset prices, the elasticity of expectations can easily exceed unity because a current unexpected change in exchange rates can induce destabilizing views about the future. With the breakdown of the Bretton Woods Agreement for maintaining exchange rates in 1973, central banks had to increase substantially their holdings of foreign reserves and their active intervention in spot exchange markets to achieve some modicum of stability [Weintraub, 1981] in repeated attempts to calm the market's possible fears. And if that fails, the IMF is expected to step in to restore stability and orderliness.

WHO SHOULD "MAKE" THE EXCHANGE RATE MARKET?

Defenders of freely flexible exchange rates implicitly assume that a laissez-faire market system must possess an equilibrium price vector that clears all markets simultaneously. Proponents of flexible rates argue that if only central banks would remove themselves as "makers" of the foreign exchange market, private sector entrepreneurs—presumably international bankers—would move in and immediately move the exchange rate to its predetermined stable equilibrium value.

Market-maker international bankers are motivated solely by profit (as opposed to nationalist pride or political myopia that, it is sometimes claimed, motivates central bankers). These entrepreneurs "know" the exchange rate that maintains a general equilibrium among all trading partners. If the original private sector marketmaker banker-entrepreneurs in the exchange market fail to find the "correct" exchange rate that eliminates persistent international payment imbalances, they will face bankruptcy. Other international bankers, it is suggested, will spring up and do a better job in identifying the correct equilibrium prices over time.

Of course, this orthodox view assumes that a stable equilibrium set of exchange rates over time exists. Unexpected changes and the potential for bankruptcy by private sector international bankers who make the foreign exchange markets are incompatible with this assumption. The possibility of bankruptcy of the original inter-

national bankers-cum-market makers or their customers would create discontinuities that endanger all existence proofs of there being any stable general equilibrium set of exchange rates. If bankruptcy occurs, it can be shown that no general equilibrium may exist [Arrow and Hahn, 1971] and hence there is no "correct" equilibrium exchange rate for the market-maker to identify.

Only if private sector international bankers who make the spot exchange market can correctly and fully anticipate a stable future can the threat of bankruptcies and the ensuing discontinuities that threaten the existence of a general equilibrium solution be avoided. In an uncertain world, there is no reason to believe that private bankers are able to forecast future economic and political events with fewer persistent errors than central bankers and central government. Moreover only the latter, with cooperative efforts among nations, can create sufficient liquidity to quell almost any private sector liquidity shifts.

Even if a long-run equilibrium exchange rate could exist, why should profit-maximizing private sector bankers attempt to identify it? If these bankers believe that in the short run the expectation elasticities of others are elastic, there is more money to be made by swimming before the tide. For a private sector financial market participant the lure of making short-term capital gains by anticipating even ephemeral fluctuations becomes paramount. As Keynes noted "life is not long enough;— human nature desires quick results, there is a peculiar zest in making money quickly . . . Furthermore, an investor who proposes to ignore near-term market fluctuations needs greater resources for safety." [1936, 157]

If there are private sector foreign exchange market-makers who attempt to maintain the long-run exchange rate in the face of short-term disturbances, these agents will need more liquid assets as reserves than central bankers require under a fixed exchange system [Weintraub, 1981]. Yet it is unlikely that, in the aggregate, private foreign exchange dealers would find it either possible or profitable to hold more reserve assets than central banks do.

If there is a private banker who has sufficient reserves to swim against the shortterm tide and take a position in defending an exchange rate, and by so doing promote the public interest, such a banker would be considered idiosyncratic or eccentric by the public and his professional colleagues. As Keynes pointed out, the long-term investor, that is, the person who is not in and out for a quick turn of profit, is the person

who most promotes the public interest [by providing stability to an otherwise potentially volatile system], who will in practice come in for the most criticism, whenever investment funds are managed by committees or boards or banks. For it is in the essence of his behavior that he should be eccentric, unconventional and rash in the eyes of average opinion [otherwise, he would not be swimming against the tide of public opinion]. If he is successful, that will only confirm the general belief in his rashness; and if in the short run he is unsuccessful, which is most likely, he will not receive much mercy. Worldly wisdom teaches that it is better for reputation to fail conventionally, than to succeed unconventionally. [1936, 157-58].

Private sector international bankers and multinational corporate comptrollers are required each day to demonstrate publicly their ability to augment the "bottom line" in *each* accounting period. When private sector bankers are entrusted with the making of foreign exchange markets and multinational corporate comptrollers committed to park corporate funds in currencies that are expected to appreciate or at least be a safe harbor in the current accounting period, these dedicated entrepreneurs will find it easier to achieve success by swimming in the lead of the tide of public opinion rather than trying to buck the short-term currents.¹⁰ Under such circumstances instability rather than stability is likely to be the rule under any but the most stationary of economic environments. A truly flexible exchange rate will not have any private or central bank market-maker to limit short-term exchange rate movements in the face of intermittent dashes toward fast exits and safe harbors whenever a storm is expected. A flexible rate system therefore is unlikely to inspire confidence in the stability of the current exchange rate except under the most static economic and political environment. Or as Milton Friedman responded to me in our debate in the literature "A price may be flexible...yet be relatively stable, because demand and supply are relatively stable over time....[Of course] violent instabilityof a specific money would greatly reduce the usefulness of that money" [1974, 151]. It is comforting to know that as long as exchange rates remain stable or fixed over time, there is no harm in permitting them to be flexible! As long as demand and supply are relatively stable, who cares if exchange rates are instantaneously flexible?

Fixed, or at least very stable, exchange rates whose movements are tightly constrained to move at most at a rate that is less than the rate of interest, is a necessary condition encouraging entrepreneurs to engage more freely in international production, investment, and trading transactions. In such a constrained exchange rate system, those entrepreneurs who engage in many foreign transactions know that they can store liquidity in either domestic or foreign assets with the full confidence that at any moment they can, without suffering a considerable capital loss, convert a marketable asset into the standard in which their expected international liabilities are falling due. Without the presence of a foreign exchange market-maker who is willing to swim against volatile short-run tides even if it means incurring significant shortrun losses on occasion, orderly markets for foreign exchange cannot long exist except for a coincidence of short-term factors that offset each other and create temporary stability.

The trick of the entrepreneurial money economy game lies in the need to hold assets whose expected liquidity value is relatively stable in terms of the same units as future liabilities and future money costs of production. "The convenience of holding assets in the same standard as that in which future liabilities may fall due and in a standard in terms of which the future money cost of output is expected to be relatively stable, is obvious" [Keynes, 1936, 236-37]. In a world of uncertainty and unpredictable changes, there can be no store of value over a period of calendar time in an entrepreneurial economy, unless contractual obligations are fixed in some nominal unit. Whatever the nominal unit of contractual obligation is, it has a unique role to play in an entrepreneur system.¹¹

In an entrepreneurial economy, "the firm is dealing throughout in terms of sums of money. It has no object in the world except to end up with more money than it started with. *That is the essential characteristic of an entrepreneur economy*" [Keynes, 1979]. In an open entrepreneurial economy where multinational firms daily deal in production contracts denominated in different money units, the object of an ongoing business enterprise engaging in these international transactions will be to end up with more money than it started with— in terms of those monies in which most of its future liabilities and production costs are expected to be denominated. Thus expected stickiness of exchange rates over the life of the production period is a necessary condition to encourage entrepreneurs to engage in long-term production and investment commitments that cross national boundaries. And in a global economy, that is a necessary condition for promoting economic growth.

The more flexible exchange rates, the greater the incentives to make "more money" through financial currency speculation rather than through real production processes. Flexibility *per se* tends to encourage expanding international capital flows relative to production and trading payment flows. It is therefore not surprising to find that exchange rate values are normally dominated by capital movements rather than purchasing power parities since the breakdown of the Bretton Woods agreement. If a fixed exchange rate system could be reinstituted and if the publicly announced rules convinced people that central banks are immutably committed to defending the preannounced exchange rate, it would not be surprising to find purchasing power parities become more important in exchange rate determination in the twenty first century. And then perhaps we could reproduce a golden age of economic growth similar to the global growth rates experienced during the 1947-1973 Bretton Woods system.

NOTES

- 1. In 1968, Professor Harry Johnson wrote "the basic argument for floating exchange rates is so simple that most people have considerable difficulty in understanding it... a floating exchange rate would save a country from having to reverse its full employment policies because they lead to inflation and deficit" [*The Times of London*, 1968].
- 2. The Thirwall's Law analysis suggests a tendency towards a more inequitable income and wealth distribution. The facts support Thirlwall's Law rather than classical theory [Thirlwall, 1979].
- 3. Apparently, classical economists do not conceive of "flight capital" as an economic problem. Indeed naive classicists claim that those with wealth have the right in any circumstance to choose when and where they move their reserves independent of the damage such moves may inflict on the national and international economy. But all the rights of the individual always are, and should be, constrained by the potential impacts on society that the exercise of these rights can have in particular circumstances. For example, no one would defend someone shouting "Fire" in a crowded auditorium as indisputably protected under an individual's right of free speech. In many circumstances, flight capital can cause more damage then yelling fire in an auditorium.
- 4. In the late 1980s, the United Kingdom joined the EMS but in 1992, a speculative attack on the British pound forced the United Kingdom to abandon the European Monetary system.
- 5. In an unconventional system when the central bank with the appreciating currency intervenes, because the central bank can expand its own currency as much as it desires, it is not too difficult to convince the public that the central bank will sell whatever quantities are necessary to preserve the fixed exchange rate.
- 6. Those holding currency A and having a forward contractual commitment in terms of B will at the same time be trying to revise their financial arrangements in order to avoid selling currency A for as long as the exchange rate is weak. Those holding currency B and having a forward contractual commitment in currency B will purchase money of A to resell for B at the commitment date if the trans-

action costs of the foreign exchange market are less than the difference between the current spot price of A and the normal price, as long as the normal price is expected to prevail at the commitment date.

- 7. In September 1992, doubts about the ability of England to remain in the EMS led to huge movements out of the pound sterling which the Bank of England was unable to unilaterally stop until England abandoned the EMS and let the pound float. Later in the year when similar doubts were raised about the French franc, the outflow was stopped by cooperative and decisive actions to support the franc by both the German Bundesbank and the Bank of France. This cooperative effort alleviated fears and kept the exchange rate between the franc and the Deutsche Mark fixed.
- 8. Since each nation can always create additional amounts of its own money, the central bank with the appreciating currency can aggressively continue to sell until the exchange rate falls back to its preagreed upon fixed rate. Very often this is done via "swaps" between the central banks in the surplus and deficit nations. In other words, the surplus nation creates its domestic currency which it "swaps" with a sum of foreign "money" created by the deficit nation's central bank that is deposited in the surplus nation can then use the swap to intervene in the market.
- 9. Often the ability to borrow is tied to the government's commitment to depress the economy (in real terms) to reduce imports and expand exports (in the hopes that the Marshall-Lerner condition is applicable).
- 10. Those who place their beach blankets at the edge of the surf during mid-tide in order to have easy access to the sea must surely know they will have to retreat in front of the advancing tide if they are not to be inundated—even if they know that more than half the time they will remain high and dry.
- 11. Since the money wage contract is the most ubiquitous domestic forward contract in non-slave societies, the money wage plays a predominant and persistent role in the determination of employment and the domestic market prices of producible goods.

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