Why International Capital Mobility Should be Curbed, and How it Could be Done

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I. Introduction and Overview

Unions and political movements that favor policies aimed at more stable economic growth and employment and fairer sharing of economic costs and benefits have been on the defensive against the neoliberal globalization juggernaut in both industrialized and developing countries. Greasing the juggernaut has been the veto power of financial capital over national economic policies, unleashed by the liberalizing and globalizing of financial markets. Left of center regimes, attracted to capital flows, but cowed by their crisis-laden volatility, are being forced to reverse policy direction in an effort to halt capital outflows, as witness the current travail of the Radical-Frepaso regime of Argentina. Retaining the confidence of the volatile financial markets has displaced equitable sharing of economic costs and benefits as the primary consideration shaping macroeconomic policy. Financial globalization has thus been facilitating a broader neoliberal drive to replace the social welfare and full employment orientation of early post-WW II welfare capitalism with pre-WW I trickle-down economics.

However, the progressive lifting of national controls over private international capital transactions, which picked up speed after the 1960s, was followed soon after by an increasing frequency of national currency and banking crises, with many spilling over into regional and even global crises. The spillover threats, the sizeable public funds devoted by consortia of the major financial powers to contain the threats, and hostile

political reactions in the debtor countries, are now evoking a crisis of confidence among the advocates of financial liberalization.

Increasing numbers of academic economists have come to view liberated financial markets as inherently inefficient and prone to excessive volatility, and a growing proportion favor a return to capital controls. Some, of neoliberal pursuasion, see the controls as essential for protecting the rest of the neoliberal policy agenda, notably free trade. Others, who favor the mixed economy orientation of welfare capitalism, see capital controls as having protected the industrial promotion policies and egalitarian welfare and full employment programs of the first post-World War II quarter century—dubbed nostalgically the Golden Age of Capitalism—against hostile reactions from the capital markets. And among economists who still believe in the efficiency of liberated financial markets, a growing number now blame the increasing frequency and severity of the 1990s crises on the use of publicly funded "bailouts" to contain the crises. The reasoning is that such bailouts increase "moral hazard," an insurance industry notion that insuring against loss from risky behavior diminishes the insured's incentive to behave prudently. By analogy, public bailouts of creditors and debtors in today's financial crisis encourage more risky lending and borrowing that produce a deeper crisis tomorrow.

Concurrently, at the official level there is now virtually unanimous rhetorical agreement among central banks, finance ministries, and intergovernmental financial institutions (IFIs), such as the IMF and the World Bank, on the need somehow to reform "the global financial architecture" in order to bring greater stability to international capital flows. Thus far, however, few concrete actions have emerged from the official

deliberations on architectural reform, and most reform proposals from the academic critics have been kept off the official agenda.

One rather obvious reason for this is the makeup of the official commissions assessing reform proposals. Participation has been restricted thus far to senior central bank and treasury bureaucrats of the major financial powers, whose *modus operandi* has long been to accommodate to the views of the private financial institutions under their jurisdiction, and to senior IFI officials whose tenure has depended, among other factors, on responsiveness to the positions of the major financial powers that fund and control their institutions. The reactions of the financial firms of the major powers to proposed reforms are thus given great consideration, whereas developing countries are being offered merely token participation in the deliberations [Griffith-Jones and Kimmis, 1999]. Moreover, participating bureaucrats cannot deviate from the basic tenet of their institution's neoliberal creed, that liberated financial markets are inherently efficient. That is, they will price capital assets correctly and thus allocate investments effectively in accordance with the changing trends in the supply of and demand for goods and services, unless knocked off kilter by market distorting government intervention.[1] The reforms should therefore concentrate on correcting the policies, while nurturing and advancing global capital market liberalization.

While this should also call for correcting the alleged moral hazard distorting bailouts, the focus thus far remains exclusively on reshaping policies of the borrowing

[1] The resignation this past year of Dr. Joseph Stiglitz as Chief Economist of the World Bank illustrates the narrowness of the limits allowed doctrinal deviants. As an academic economist, Stiglitz had built a formidable reputation for his theoretical work highlighting informational and behavioral asymmetries that produce financial market inefficiencies. However, his effort to modify the World Bank's enthusiasm for neoliberal reforms, by supporting capital controls, and by incorporating this and other heretical views in the World Bank's World Development Report, aroused the ire of the U.S. Treasury Secretary, who demanded

countries. IMF trial balloons designed to reduce the moral hazard distortion and political opposition to bailouts by "bailing-in" private creditors, requiring them to contribute to the bailouts, have been shot down by the creditor banks and bondholders. As two Wall Street operatives point out in a recent article, the major private creditors believe themselves sufficiently hedged and diversified to have been able to bear their losses from the 1990s crises, had the bailouts not relieved them of that burden. They therefore reject "bailing-in" as an unwarranted requirement that they throw good money after bad. And, as the article contends, "the ability [of the international public sector] to compel solutions does not exist. The reality is that it never did. Today, as in the past, the pressing need is to understand and define common interests in the new market setting and to find ways to induce and encourage desired behavior on the part of investors and creditors." [Checki and Stern, 2000][2]

In the event, the current IMF-organized $7.5 billion bailout of Turkey, and $39.7 billion bailout of Argentina include, as before, no compulsion on foreign creditor banks and bondholders to pony up more cash. Instead, the hope is that the large injection of liquidity, along with adoption of the IMF's policy demands--which for Argentina requires phasing out the state-run pension system, rolling back the union-run health system, and freezing the government expenditure level for five years--will revive foreign creditor confidence and induce them to finance Argentina's foreign debt with lower interest rates and longer maturities.

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and obtained the resignation of Stiglitz and the offending editor-in-chief of the deviant Development Report.

[2]Terrence J. Checki is executive vice-president of the Federal Reserve Bank of New York and head of the Bank's Emerging Market and International Affairs Group. Ernest Stern is a managing director of J.P. Morgan & Co.

The Argentine case, however, also highlights a third aspect of the current crisis of confidence, the fear that domestic political resistance to IMF policy demands, which basically puts most of the crisis adjustment costs on labor, may get out of hand, scare off investors, and instigate a major policy retreat from neoliberalism. Falling output and rising unemployment--now over 16% of the labor force--have set off anti-government demonstrations and stiffened congressional resistance to the government's efforts to carry out the IMF policy demands. This is forcing President de la Rua to try to impose the policies by presidential decree. His economy minister pronounced that the decrees "will send a clear signal to investors about where we are moving," which will improve investor confidence, lower interest rates on the foreign debt and revive foreign and domestic investment. But to Wall Street the signal is murky. The effort, as the head of emerging markets at Bear Stearns & Co. observed, "will be viewed positively by the markets. But people know that de la Rua is uncomfortable governing like this, so there are still questions about whether this is sustainable from a standpoint of principles and practicality" [Bloomberg News, December 28, 2000].

The IMF is also uncertain it knows what it's doing. The Radical-Frepaso regime on taking office in December 1999 inherited an economy in recession, with 14% open unemployment, strongly rising income inequality, and a third of the population living below the poverty line. It had campaigned on the promise to revive the economy and reverse the inequality trend. But it also inherited a massive foreign debt accumulated from a succession of large trade and current account deficits, which foreign banks and bond markets, burned by the Russian bond defaults of August 1998, were now reluctant to keep financing except at sharply higher interest rates and shortened maturities. This

put the Argentine economy in a classic "debt trap," in which the foreign exchange cost of servicing the foreign debt keeps rising faster than foreign exchange earnings from exports, with default and debt writedowns as the final solution. To lower interest costs, the new government decided to draw on credits left over from a previous IMF bailout. That, however, forced it to renege on its campaign promises in order to meet the IMF's conditions for obtaining the funds. These were: reducing fiscal deficits by cutting expenditures and increasing taxes, and reducing the cost to employers of layoffs and new hires by repealing various job and wage protective laws. However, by further depressing aggregate demand, the fiscal reduction effort extended the recession, so that the repeal of the protective labor laws notwithstanding, unemployment kept rising. Its popularity plummeting, the coalition government began splitting apart, which further depressed investor and creditor confidence, and further raised the cost of financing the foreign debt.

The new Argentine bailout seeks to avoid the flaws of the previous one. It provides much larger short-term liquidity and gives the government somewhat more slack for deficit financing, allowing it to spend $20 billion over the next five years on public works. In a December 27, 2000 interview, the IMF's second in command, Stanley Fischer, admitted that the earlier policy demands had worsened matters, but that in advance "it is very hard to know how it is going to turn out." In any event, "what the current program is, is a recognition that growth is an essential issue in Argentina." And "if Argentina is to grow," Fischer went on, the impetus would have to come from higher export growth.

But this means that the new bailout is unlikely to overcome the policy contradictions that have plagued Argentina's neoliberal effort of the past decade. To curb

high inflation, Argentina's 1991 Convertibility Law froze the peso/dollar exchange rate, and tied the central bank's monetary emissions tightly to its dollar reserves. And to attract foreign direct and portfolio investment, the Law also lifted all exchange controls, making the peso freely convertible into dollars in all foreign and domestic transactions. The Law brought down inflation, but in the transition to a stable price level, the exchange rate became badly overvalued, and the dollar became the preferred domestic store of value as well as unit of account for larger domestic transactions. Without a devaluation, Argentina is therefore at a serious cost disadvantage in trying to expand exports faster. But repealing the Law and devaluing could set off a massive flight to the dollar that would quickly drain the central bank of the dollars it needs to supply pesos and to service the foreign debt, unless the government reintroduced and effectively applied the *betes noires* of neoliberalism and the IMF: exchange and import controls.

The IMF, according to Fischer, advises sticking with the Convertibility Law, which means neither devaluation nor exchange and import controls. But this requires pushing wage/price deflation into negative territory by tighter wage-cutting measures and credit restrictions as the chief means for offsetting the export cost disadvantage imposed by the overvalued but frozen exchange rate. Thus to achieve its growth objective without retreating from neoliberalism, the current IMF bailout still needs policies closely resembling those it had attached to the previous bailout, even though the IMF recognizes that they had extended the economic depression, deepened social unrest, and reduced investor confidence. This is especially so because the $39.7 billion bailout fund provides less liquidity relief than appears at first sight. Only half the funds, those from participating governments and IFIs, are firm commitments. The rest consists merely of

informal understandings with private domestic and international banks and pension funds, who retain full freedom to set their own terms. As Fischer in a more recent interview explains, "You can't both say you are dealing on a voluntary basis and then tell investors you're going to buy this much at that price." [That] "would do a lot of damage to other emerging market countries where bondholders would draw their own conclusions." Thus, as Charles Calomiris, a leading academic proponent of the "moral hazard" criticism of IMF bailouts suggests, "the IMF's money may just be used to finance the exit of private debt holders" [Bloomberg News, January 13, 2001].

The Argentine case typifies a general dilemma besetting the IMF bailouts. In its recent Thai, Indonesian and Korean bailouts, the primary focus was also to prevent foreign debt default by providing short-term credits. These were also tied to the adoption of austerity measures and neoliberal policy reforms intended to entice an early return of foreign capital by rebuilding investor confidence and expected profitability. But the austerity measures—sharply higher domestic interest rates to slow capital flight, and reduced fiscal outlays to keep fiscal deficits from "crowding out" private sector financing—were singularly ill-timed. Higher interest rates and depressed home demand set off waves of bankruptcies, major banking crises, and the drying up of domestic bank lending. Output and employment plummeted while popular discontent rose. Belatedly, the IMF tried to reverse course, increasing its credits and easing its restrictions on deficit spending. But the repercussions from the bankruptcies and the banking crises are still preventing a sustained economic recovery and return of foreign capital. This contrasts with Malaysia, which, though also severely hit by the region's capital flight, rejected IMF assistance and resorted instead to an expansionary monetary-fiscal policy, which it

protected with capital controls. Spared a bankruptcy wave and a systemic banking crisis, the Malaysian economy has recovered more quickly than its neighbors, as did also, ironically, its inflow of foreign direct investment. The contrasting experience, which has not gone unnoticed among its neighbors, is further fueling opposition to the IMF's policy demands.

The IMF's policy dilemma is compounded by the embarrassing contrast between its pre-and post-1997 analyses of the East-Asian economies. Most had enjoyed two decades of fast economic growth, low inflation, relatively stable dollar exchange rates, high export and investment growth rates, balanced fiscal budgets, high private savings rates, and moderate and stable income inequality. Indeed, the World Bank dubbed the record "the East Asian Miracle" in a widely disseminated policy report, intended as a "how to do it" development primer for other Third World countries, that closely reflected the views of the IMF [World Bank, 1993].

One major lesson, according to the report, is that "market friendly" policies that promoted private initiative in liberated markets and confined government intervention to "well-defined limits," rather than Japanese style official industrial planning and subsidies, accounted for the rapid industrializing of East Asia. This lesson was soon attacked by Asian development experts as an ideologically motivated and factually incorrect downplaying of the importance of activist industrial promotion measures in Korea, Indonesia, Taiwan, Malaysia and Singapore as well as in Japan. A second lesson: that by liberating their financial sectors and lifting capital controls, the East Asians were effectively exploiting the new opportunities provided by financial globalization--a view also emphasized in the laudatory pre-crisis IMF reports—looks quite lame post-1997. So

also does a third lesson: that "technocratic insulation…the ability of economic technocrats to formulate and implement policies in keeping with politically formulated national goals with a minimum of lobbying for special favours from politicians and interest groups had facilitated the successful policy making," a left-handed compliment to the authoritarian governments then dominating the region [Ibid., p.267].

The IMF's post-1997 explanations of the Asian crises, by contrast, single out major flaws in the financial liberalization process that had passed unnoticed in its pre-1997 reports, such as allowing undercapitalized domestic banks to become overly dependent on volatile short-term foreign loans, which they re-lent to over-leveraged domestic firms, and to finance real estate and stock market bubbles. They have also transmogrified the World Bank's positive "technocratic insulation" into negative "crony capitalism," to which the IMF now assigns much of the responsibility for the loose financial practices that brought on the crises. The IMF now uses "crony capitalism" to buttress its case that privatizing state functions and more market decontrol should be the primary focus of the structural reforms needed to avert future crises.

But while in financial transactions it takes at least two to tango, the IMF has been slow to assign any core responsibility to the international banks and capital markets. In the 1995 Mexican crisis, which spilled over to other Latin American countries, the IMF attributed the skittish behavior of foreign banks and investors to the region's inadequate official data and weak corporate accounting standards, which had prevented the banks and portfolio investors from accurately assessing their risk/return ratios. As an initial step toward reforming the global financial architecture, the IMF, therefore, sought and received authorization to improve the timeliness and "transparency" of the data provided

to the international financial markets by developing country borrowers. The reform proved to be a damp squib, for reasons to be discussed later on.

In any event, it didn't prevent skittish behavior by those same markets from spreading the 1997-98 crises much wider. More recently, as part of the architectural reform effort, the IMF has been collaborating with the Basel Committee on Banking Supervision, a consortium of bank regulators from 12 leading economies, to improve the prudential regulation of international banks by strengthening their required capital/loan ratios and risk management procedures. In seeking agreement from the international banks on the prudential reforms, the BCBS has encountered heavy weather. Preliminary agreement has finally been reached on the general structure of the proposed reforms, though the details have still to be negotiated with the banks [The Economist, Jan. 20, 2001; pp.67-68]. Nevertheless, the IMF's collaboration is a tacit admittance that it now accepts that the skittish behavior of the international banks has deeper roots than inadequate data from the debtor countries.

There are also other recent glimmers of greater IMF policy flexibility. Along with easing its austerity demands, the IMF is evincing an interest in more equitable sharing of the austerity. It urges expenditure on poverty relief by debtor governments, provided that it is "closely targeted" to minimize the impact on the fiscal deficit, and has begun pressuring the governments to attack tax evasion and other corrupt behavior more vigorously. The IMF has also shelved its campaign, backed by the U.S., to amend its charter—the Bretton Woods Articles of Agreement—to require that to qualify for IMF emergency credits, members must pledge to abolish all capital controls within a mutually agreed upon time period. The campaign was to culminate with formal approval at the

September 1997 meeting of the IMF Board of Governors in Hong Kong, but the currency crises enveloping the neighborhood made it unwise to pursue the matter.

These modifications, whether tactical or permanent, are, however, limited by the IMF's abiding commitment to global capital market liberalization, which it justifies by appeals to economic theory and historic experience. Its conviction that liberated global capital markets can become stable, efficient allocators of economic resources is, it contends, firmly grounded in basic economic theory. Excessive volatility of capital flows and other malfunctions are therefore transitional phenomena, part of a learning process by which the markets correct mistakes and get it right. Its appeal to history has two main components. The first is the claim that, despite the economic losses from frequent crises, the economic data clearly demonstrate that the ongoing liberalizing of international trade and financial markets from the restrictions and policy distortions of the pre-1973 Bretton Woods regime, has been paying off handsomely for the world economy in higher growth of output, trade and productivity. The second is that the massive international capital flows, rapid export growth, and stable exchange rates that had prevailed with few international crisis interruptions under the free capital mobility of the pre-WW I gold standard era, demonstrate that global free capital markets and free trade are compatible and mutually welfare enhancing.

The following sections of this essay show that these appeals to theory and history for doctrinal support are either badly flawed or totally erroneous. Why is this necessary? Because flawed or not, the doctrinal claims asserted by the IMF and other official agencies that control the financial architectural reform agenda serve an important public relations function. Through reiteration in publications and other communications they

indoctrinate the public to accept the doctrine and its policy corollaries as scientifically derived truths. And they have been successful in molding media and public views.[3] Journalists now turn mainly to spokesmen for the IFIs and the financial houses to interpret economic trends and policies around the world, and receive assessments that focus mainly on trends of interest to investors, not workers, and judge policies mainly from a neoliberal perspective. Forcing the official financial reform deliberations to take seriously measures that curb the capacity of the financial markets to grease the neoliberal juggernaut, such as those submitted by the ICFTU last year to the Prague meeting of the Boards of Governors of the IMF and World Bank, requires changing the political climate by re-educating the media and public in addition to engaging in direct electoral, job

[3] The 1995 Mexican bailout offers an egregious example of effective spin control. The Mexican government had been financing much of its rapidly growing current account deficit by selling short-term peso-denominated treasury certificates, called *cetes,* to foreign investors, who were attracted by the very large spread between the *cete* interest rate and the interest rate they needed to pay on dollar loans to buy the *cetes*. However, in 1994 the investors, losing confidence that the dollar/peso exchange rate would hold up, began cashing in their *cetes* for dollars. To revive investor confidence, the Mexican government encouraged them to instead exchange their *cetes* for *tesebonos,* which were specially issued peso-denominated treasury notes indexed to the dollar/peso exchange rate. However, in Fall 1994 Mexican *tesebono* holders began cashing in and exiting to dollars, followed belatedly by foreign holders, who were still stuck with $29 billion worth of *tesebonos* when in December 1994 the Mexican central bank, its dollar reserves nearly exhausted, let the exchange rate float and helplessly watched it sink. The U.S. Treasury and IMF hastily cobbled together a $51 billion bailout fund, and required the Mexican government to use over half to pay off the $29 billion *tesebonos* with dollars. Since the government's contractual obligation to *tesebono* holders was merely to pay them more pesos when the peso price of dollars rose, the bailout obligation amounted to a forced *ex post* rewriting of the contract with *tesebono* holders to save them from taking a bath.

Michel Camdessus, the IMF's Managing Director, explained in a candid television interview that the main reason for attaching this condition to the bailout was to keep Mexico from imposing capital controls to halt the flight to dollars. If Mexico were allowed to do that, other developing countries in currency crisis might follow suit, thereby negating the IMF's general effort to eliminate capital controls. Mexico dutifully acceded to the terms, and instead raised interest rates sharply to discourage capital flight, which set off a systemic banking crisis and a deep economic recession. But as controversy over the $51 billion bailout grew in the U.S. and Europe, official Washington and the IMF felt it necessary to come up with a better public justification for the bailout. The spin for the media and the public was thus changed. It was now that Mexico would have been forced to default on the *tesebonos* had the bailout not come to the rescue, because the *tesebonos* were dollar-denominated, and Mexico lacked dollars to service them. The spin was patently false. Indexing to the dollar had merely obligated Mexico to supply more pesos to *tesebono* holders whenever the peso price of the dollar rose, and Mexico/s central bank could readily supply the pesos as needed. But the media bought the default story and began calling the *tesebonos* dollar-denominated notes. So, to their shame, did a number of academic economists, who wrote scholarly papers lauding the success of the bailout in preventing default.

action, and Seattle-type activities. Progress on this would show itself when journalists begin turning, as a matter of course, to union spokesmen for alternative expert opinions on financial trends and policies that directly or indirectly affect the general welfare.

Accordingly, sections II to IV analyze in detail the theoretical and factual flaws in the case for free capital mobility. Section V then discusses a set of proposals for reforming the global financial architecture that could weaken the power of international capital to intimidate domestic policies, while also stabilizing international financial flows that are more likely to be welfare enhancing.

II. Why the Claim that Economic Theory Proves that Liberated Financial Markets Behave Efficiently is False

We begin with some general, non-controversial truisms. The growth of aggregate output in all economic systems depends only partly on the growth of the supplies of productive inputs and improvements in production methods. It also depends on how well the institutions coordinating the allocation of heterogeneous inputs with the changing demand for heterogeneous outputs perform that task. As the division of labor expands to exploit new technologies, so do inter-temporal and inter-spatial coordination requirements. This is basic Adam Smith, passed on to later Classical Economists, such as David Ricardo and Karl Marx, as well as to the more recent Neo-Classical and Keynesian schools of economics.

The response of private market economies to the expanding coordination requirements was to centralize borrowing and lending in private banks, and the trading of private ownership claims on capital assets in formal securities markets. Concurrently, private insurance companies emerged to absorb for a fee some of the risks of financial loss to households and businesses from injury, death, and property destruction., Aided by

the legalization of limited liability on corporate shares, which enables corporate shareholders to shift some of the risk of ownership to the other stakeholders in the corporation, the interconnected financial institutions had by the mid-19th century become the central coordinators of aggregate production and capital accumulation in the more industrialized economies of western Europe, and the developing U.S. economy. Banks rolled over their short-term liabilities—deposits and banknotes—into loans of varying duration to firms and households. Investment banks marketed bonds and shares to insurance companies and wealthy families. And the securities markets facilitated the funding of long term investments by enabling stock and bond owners to unload quickly, thereby reducing the illiquidity risk of holding long term ownership claims.

These activities, however, remain risk-laden. Banks risk shutdown from liquidity crises if sudden runs on their short-term liabilities—their deposits and banknotes—exceed the cash receipts from their longer term assets, their bank loans. And if loan defaults lower the market value of the loan portfolio plus the bank's equity capital below the sum of the bank's liabilities, the liquidity crisis deepens into an insolvency crisis. Holding down the ratio of loans to bank capital lowers both types of risks, but also lowers the expected yield on the bank's capital. And waves of depositor panic and delinquent inter-firm payments can topple even conservatively run banks and firms. Similar maturity gaps—"time inconsistency" in economist jargon--between debt servicing and cash flows plague firms that borrow to finance long-term projects, since the outlays on the project precede the cash flows from the completed project. Using more debt and less equity financing—called debt leveraging—increases the potential return on the equity capital, but that means taking on greater liquidity and insolvency risks. Striking an

optimal balance is chancy, since the difficulty of accurately estimating future cash flows is compounded by the need to assess the impact of future actions by competitors, as well as by the possibility that economy-wide crises may abruptly depress cash flows and cut back access to credit.

Security markets also have innate risks. To be useful for transferring liquidity risk, the markets need to be liquid, that is, to be ready to service all buy and sell offers quickly. This requires a large presence of short-term market traders who buy and sell in pursuit of quick profits from the movements of asset prices. But such speculative activities can generate wide swings in asset prices that augment market risk—especially the risk that prices might swing too low to protect the seller's liquidity or even solvency.

Thus by the latter half of the 19th century it had become evident that national output expansion was being interrupted intermittently by major breakdowns, typically accompanied by collapsing asset prices and widespread bankruptcies and bank failures. The financial institutions could only partially relieve individual firms and households of the risks of financial loss from ownership because the heightened security against loss had a moral hazard kick. It lowered risk assessments, which encouraged more risky investment behavior. The interconnectedness of the financial institutions, and competitive pressures on them to increase profits, tended to generalize the more risky behavior, which the asset markets would validate with an economy-wide boom in asset values that encouraged still more debt leveraging by financial and non-financial firms and households. The economy thus became progressively more fragile, i.e., less able to absorb adverse shocks to cash flows that lowered the debt servicing capacity and asset

prices of the more financially extended sectors of the economy, without financial interconnectedness transforming the sectoral crises into an economy-wide one.

The policy reaction of the leading capitalist countries was piecemeal measures to dampen financial instability and its impact on the real economy. Prudential regulations of banks were introduced, and strengthened after subsequent banking crises. The right to issue private banknotes was centralized in a single bank. In return for the monopoly, that bank, dubbed the central bank, had to ensure an orderly market for government debt, and over time took on other quasi-government responsibilities, such as regulating domestic money market rates, and serving as lender of last resort to banks undergoing liquidity crises. Its control over currency expansion was further tightened when countries in the late 19th century adopted the gold standard and demonitized silver. The central bank, as the holder of official gold reserves, became obligated also to manage its banknote and credit emissions so as to protect the reserves. Other government interventions included agricultural and industrial tariff increases to alleviate downward pressure on prices, so that the pre-WW I half-century, in contrast to the post-WW II one, was accompanied by rising protectionism in all the leading capitalist countries except Britain. The pre-WW I era also saw the introduction of protective labor laws: limits on the workday and child labor in Britain, universal old age pensions in Germany, and so on. Post-WW II government interventionism dwarfs pre-WW I's, but it's a stretch to view the latter as an era of untrammeled laissez-faire.

1. Enter Economic Theory

Because the pre-WW I interventions failed to eliminate intermittent financial crises and associated output declines, economists soon divided between those advocating

stronger measures and those blaming the interventions for intensifying instability by hindering the self-adjusting properties of the markets. This division persists to the present, with the shifting balance probably reflecting reactions to recent trends of the economy as much as intellectual progress in economic analysis. But the inconclusiveness of the intellectual debate has been exacerbated because it has been conducted largely within the confines of neoclassical economics, which is singularly ill equipped taxonomically for analyzing the behavior of financial markets.

Neoclassical economics came to dominate mainstream economics in the latter 19th century, displacing the classical economics of Smith and Ricardo. Classical economics had focused on long-term determinants of capital accumulation and aggregate economic growth. It assumed a background of decentralized, interactive markets, but built its formal analysis around the interactions between broad socio-economic classes with enduring differences in their economic behavior and types of asset ownership.[4] Neoclassical economics, by contrast, focuses on individual market structures and adjustment mechanisms, which it links to the economic behavior of individuals rather than classes, while putting capital accumulation and aggregate growth issues in the background.

The operating premise of neoclassical analysis is that the economic behavior of individuals in all situations can be modeled as maximizing the attainment of a desired objective within externally given constraints. Its analysis of economic dynamics is

[4]John Stuart Mill and Karl Marx, mid-19th century classical economists, did try to incorporate the propensity of financial markets to overprice capital assets which led to financial crises in their analysis of capitalist dynamics. Mill, however, clung to the basic classical contention that financial disorders have minimal feedback on aggregate output trends. Marx, on the other hand, theorized that financial crises were integral components of periodic production and employment crises that were basic features of the "laws of motion" of capitalist expansion..

directed at detailing the constraints, and how maximizing agents respond to changes in the constraints. Consumers spend to maximize their satisfaction from consumption, within the limits of their purchasing power over consumables. Suppliers produce the consumables in quantities that maximize their profits by choosing the most cost-efficient production method from the methods available to them. The buying and selling of consumables, and of inputs needed to produce them, create markets that establish exchange ratios or prices at which the overall quantity demanded equals the quantity supplied. Markets adjust to changes of incomes, tastes and production requirements by establishing new equilibrating prices. The set of interacting markets make up a market economy, within which the array of exchange ratios coordinate the production and distribution of the heterogeneous array of outputs, and determine the distribution of income among the participants involved in these activities as workers or as owners of productive assets. The economy reaches maximum economic efficiency if all participants maximize correctly and all the markets are free of monopoly: that is, no single participant or group is able to sell or buy large enough quantities in any of the markets to affect the market price. Smooth expansion of such an economy also requires that the participants incorporate correct projections of future supply and demand in their decisions to buy, sell, save, and invest. That is, this idealized economy requires participants to be fully informed about the economic future and fully able to process that information so as to maximize correctly. In economic jargon, they must have perfect foresight and be super-rational. If so, today's prices will also embody accurate information about tomorrow's, enabling participants to short-cut the information

processing. The efficient market hypothesis [EMH for short] is an application of this reasoning to the idealized markets for capital assets and loans.

To neoclassical economists, this idealized economy serves as a yardstick for assessing the economic efficiency of real world market economies. It biases them toward policies to remove monopoly and promote the wide dissemination of economic information, and against policies that control prices and restrict free entry into markets. That bias is tempered, however, by awareness that the efficiency yardstick falls short as a social welfare norm, since it provides no guidance on distributive justice. Many of the policy disagreements among neoclassical economists have to do with whether interventionist policies are giving up efficiency for more equitable distribution of income and wealth, and if so, whether the tradeoffs add to general social welfare. The debate over free capital mobility has such a tradeoff component. Proponents favor it in part because it enables the capital markets to "discipline" national policies, by rewarding "sound" policies with capital inflows, and punishing "unsound" ones with capital flight. Opponents contend that the "sound" policies are those that reduce taxes on capital, weaken unions, roll back social welfare programs, and generally tilt toward an increased concentration of income and wealth.

But although the equity case for free capital mobility remains debatable, the efficiency case is simply wrong *tout court*. This is because the EMH, on which it is grounded, turns out to lack theoretical support even from neoclassical theory.

2. How Mathematical Neoclassical Theory Undermines the Neoclassical Case for the Efficiency of Financial Markets: A Non-Mathematical Summary

Pre-WW I neoclassical economists had tended to hand-wave away some dicey problems. One is whether a market of many buyers and sellers can reach a single

exchange ratio or price that equates market supply and demand. A second is whether the interactions between such markets can produce arrays of prices and quantities that fully employ the economy's labor force and productive capacity. A third is whether such an economy is stable, in that it is able to adjust to changes in supply, demand, or technology by moving smoothly to new arrays of prices and quantities that fully employ the altered productive capacity and labor force. In the inter-war decades, sparked by an ongoing debate on whether socialist economies relying on physical central planning can allocate economic resources more efficiently than capitalist economies relying on decentralized markets, the "general equilibrium" branch of economics began exploring the three questions mathematically.

The approach was to construct mathematical models of market economies that accepted as axiomatic the neoclassical assumptions that consumers are all fully-informed, self-interested, utility maximizers, producers are fully-informed profit maximizers, and all markets are purely competitive. The search was for the minimum set of added conditions that would be necessary and/or sufficient to produce positive answers to the above three problems. The approach had its limits. It could identify conditions that don't logically contradict the axioms or other conditions in the set, but not whether those conditions that pass the logical test exist or can be created in real world economies. That requires separate empirical investigation. In any event, the mathematical effort identified alternative sets of constraints on production technology and consumer preferences that suffice to produce equilibria that are locally stable; that is, they will move to a new equilibrium if hit with merely small disturbances. They also produced a set of conditions

that are necessary and sufficient for global stability; that is, allows the modeled economy to maintain full employment and full capacity regardless of the size of the disturbance.

However, a troublesome feature of the sufficiency proofs of local stability is that money enters merely as a convenient measuring rod to facilitate the exchange of goods and labor. The real life functions of money as the ultimate source of liquidity and store of value, and hence the formation of the financial markets that evolve from these functions, could not be included since that would violate the full information axiom.[5] Such economies are, therefore, merely thinly disguised barter economies. More devastatingly, the globally stable case, the Arrow-Debreu model, is essentially a disproof that such an economy can exist in reality. For a crucial condition of the A-D model is that a complete set of futures markets must exist or emerge as needed to enable market participants to fully insure against all possible risk of loss. Could that condition be fulfilled, it would transform entrepreneurs, who in neoclassical theory are bearers of uninsurable risks, into accountants able to profit endlessly from holding riskless portfolios. And since the ability to insure the requisite timing of payments and receipts eliminates the need to hold assets for their liquidity, rational wealth maximizing participants would not want to hold money, when it's a zero earning asset. Neither would entrepreneurs turned accountants need to protect their wealth by overseeing production and disciplining their work force. Hence as rational, self-interested consumers who get utility from leisure but merely disutility from work, they would head for the golf course instead of the office. In sum, realization of the complete futures market condition is

[5]Yet "in a world with a past as well as a future and in which contracts are made in terms of money, no equilibrium may exist." [Arrow and Hahn, 1991, p.361].

blocked by a gigantic and insoluble moral hazard problem. "C'est magnifique, mais c'est ne pas le capitalisme."[6]

Whether capital markets are capable of pricing assets correctly in accordance with changing supply and demand conditions, as the EMH asserts, cannot, therefore, be derived from the idealized neoclassical models of competitive market economies. This has moved the debate over the validity of the EMH and the desirability of global free capital mobility to a less extreme level of abstraction, in which proponents of the EMH assert it as a looser, "more or less" valid, proposition.

3. Enter Keynes and Bretton Woods

With the world-wide depression of the 1930s, "less" became the mainstream position. John Maynard Keynes included in his magnum opus an all-out rejection of the logic and realism of the EMH notion that rational investors in security markets can and do base investment decisions on accurate comparisons of the long-term payoffs from holding alternative securities [Keynes, 1936; Chapter 12]. The first generation "Chicago School" of libertarian economists—Milton Friedman's mentors—proposed as a solution to systemic bank crises, that banks be required to hold 100% cash reserves against their deposits. That would prevent banks from engaging in speculative liability leveraging by limiting the volume of bank loans to the size of their equity capital [Simons, 1948; Mints, 1950]. Ragnar Nurkse expressed the opposition of the majority of economists of that period to floating foreign exchange rates and free capital mobility when he wrote:

> If there is anything the inter-war experience has clearly demonstrated, it is that paper currency exchanges cannot be left to fluctuate from day to day under the influence of market supply and demand….If currencies are left free to fluctuate, speculation in the widest sense is likely to play havoc with exchange rates—speculation not only in

[6]This is clearly Arrow's assessment [Arrow and Hahn, 1991; Chapter 14].

> foreign exchanges, but also, as a result, in commodities entering into foreign trade [Nurkse, 1944; pp.137-38].

Reflecting the policy positions of mainstream U.S. and British economists, the 1944 Bretton Woods Articles of Agreement also restricted capital mobility on equity grounds. As Harry Dexter White, the head of the U.S. delegation to the Bretton Woods Conference explained:

> Englishmen have not forgotten that in the [pound] sterling crisis of 1931, social services were cut in the attempt to maintain the fixed sterling parity [with gold--D.F.]. To use international monetary arrangements as a cloak for the enforcement of unpopular policies, whose merits or demerits rest not on international monetary considerations as such but on the whole economic program and philosophy of the country concerned, would poison the atmosphere of international financial stability [White,1945].

The Articles of Agreement, which also established the IMF and the World Bank, thus represented a collective effort by member countries of the two IFI institutions, to restore stable exchange rates and convertible currencies in order to facilitate the revival of multilateral trade and investment, while leaving to each member ample room to pursue independent employment and social welfare policies. It provided that room by allowing member countries to adjust their foreign exchange rates and to restrict external capital account transactions when they severely impede the maintenance of national output and employment. The IMF was assigned the tasks of monitoring member compliance with the Articles of Agreement, and providing short-term liquidity to members in balance of payments difficulty. Under Article VI, which authorizes member countries to use capital controls as needed, the IMF was also obligated to cut off its credits when used to facilitate capital flight. Obviously, the IMF has not been honoring that obligation.

4. Neoclassical Counterattacks Against the Bretton Woods Regime

The attacks began soon after the regime went into operation. Milton Friedman, in a polemical essay that took aim at both Keynes and Nurkse, argued that floating foreign exchange rates plus free capital mobility offered the following advantages over the regnant Bretton Woods regime [Friedman, 1953]:

1. Free floating foreign exchange rates will insulate each economy from external real or monetary shocks, freeing it to inflate as needed to implement its macroeconomic policies.

2. This will occur because the nominal foreign exchange rate and the domestic price level will move together, thereby stabilizing the real exchange and interest rates.

3. Currency speculators, free to operate, will hasten the movement of the nominal exchange rate to new equilibria, thereby forestalling the development of massive hot money flows.

4. Long-term capital flows will bring about a global convergence of real interest rates, thereby maximizing the global allocative efficiency of investment.

Friedman drew on a "more or less" version of the EMH to support his contention that currency speculation would be stabilizing. He extended to the currency market the general neoclassical stability requirement that when market prices are not at their equilibrium, they induce "negative feedback" from well-informed traders. That is, these traders, "knowing" the true equilibrium exchange rate will also "know" which way the actual rate must move to get back to equilibrium. Accordingly, they will take short or long positions on the currency in order to profit from that expected movement, and thus collectively drive the rate back to equilibrium. Negative feedback traders will dominate the currency markets, Friedman claimed, because they will profit consistently from arbitraging away spreads between the actual and the equilibrium rate, at the expense of "positive-feedback" traders who bet that the movements away from equilibrium will

persist. The latter must either learn in time to become negative feedback traders, or accumulating losses will drive them from the market. All this, of course, merely restates a necessary condition for speculation to be stabilizing. It doesn't prove that the condition will be fulfilled in reality.

When the floating rates, which had replaced the fixed but adjustable exchange rate system of Bretton Woods in the early 1970s, became increasingly volatile, economists sympathetic to Friedman's position, tried to show that the volatility reflected rational, i.e., maximizing, trading behavior by invoking the postulate of rational expectations. The postulate, dubbed Ratex for short, is a modification of the self-contradictory postulate of perfect foresight, which earlier neoclassical economists had invoked to avoid dealing with the omnipresence of uncertainty about the future. Under Ratex, market participants lack complete information about future prices, but they are able to process the information currently available so as to form accurate expectations about the means and variance of future prices, which they use to guide their current trading. The expectations about future prices thus determines current asset prices, which change significantly only as new information appears which changes expected means and variances of future prices. Ratex also "solved" the problem of how the assessments of the many market participants could aggregate to a unique market price, by asserting that the information processing by rational participants also led them to know the "true model" describing the laws of motion of the economy. Hence macroeconomic analysis could be linked to individual behavior by the simplifying device of the "representative agent," whose reactions to opportunities and constraints mimicked that of all other market participants.

5. The Empirical Failure of Friedman-Ratex Models

Contrary to Friedman's prediction, rapidly rising short-term capital movements accompanied the rising exchange rate volatility. By the early 1980s, it was evident that short-term capital movements were far outstripping the flows needed to finance international trade in commodities and non-financial services, such as shipping, international travel and tourism. The United States dollar provided an especially glaring example. The dollar exchange rate kept rising rapidly in the first half of the 1980s despite a rapidly worsening trade deficit, because it was being driven upward by massive inflows of foreign capital. Defenders of the Friedman position therefore shifted the focus of their explanation of exchange rate movements from commodity to financial market dynamics. That would appear to weaken the normative function that neoclassical trade theory assigned the exchange rate--to help direct countries to specialize in production and trade in line with their comparative advantages. But the revised explanation invoked Ratex and the EMH to reconcile itself with neoclassical trade theory. Ratex and the EMH meant that the financial movements driving the exchange rate reflected accurate assessments of future trends in the supply and demand for internationally traded goods and services. The easing of capital controls, and improvements in electronic data processing that facilitated the explosive growth of financial flows, were, therefore, also hastening the realization of a globally efficient allocation of resources.

The explanation sparked a succession of econometric "news models" of exchange rate determination to test its empirical validity. That is, they tested whether the exchange rate volatility reflected in fact the responses of financial markets to new relevant information, with relevancy determined by the "true model" that was supposed to guide

the reactions. To pass the test, the "news" model would have to show that as new information kept being added to the information set, the model traced out exchange rate movements whose volatile path closely mimicked that of the actual exchange rate, both within the period covered by the sample data and outside of it. When the initial "true model"—Friedman's quantity theory extended to monetary interactions between countries—produced poor predictions of the "out-of-sample" exchange rates, Ratex-embedded "true models" with different structural features were devised and tested econometrically. The *coup de grace* to this general line of empirical research came when it was shown that the out-of-sample predictions of all these models were worse than those produced by a naïve "random walk" model. The latter merely predicts that today's exchange rate is always equal to yesterday's rate, plus or minus random deviations that have a constant variance and cancel each other out. The fact that such a minimal information model predicted better than models purporting to provide more structural information on exchange rate dynamics was devastating. The shock was compounded by subsequent econometric investigation, which showed the random walk model to be dominated by the "martingale" model. In that model, today's rate is predicted to equal yesterday's plus or minus deviations of varying size, whose variance is neither stable nor cancelled out. Such a model provides exchange market traders with even less useful information than the random walk model.

7. The Demolition of the Logical Validity of the Ratex Postulate

The demolition involved two mathematical criticisms. The first showed that the solutions to the linear equations used in Ratex-embedded econometric models of asset prices, including exchange rates, necessarily contain a constant term that can move the

predicted asset prices to anywhere between plus and minus infinity. This explosive constant, dubbed the "rational speculative bubble," is arbitrarily set at zero in the Ratex models on the premise that rational speculators, aware that in reality such bubbles must sooner or later burst, would time the burst correctly and make huge profits from cashing in before the explosion. But since all speculators were by assumption equally rational and knowledgeable, they would do likewise. Collectively they would move the burst closer and closer to the present, leading to the conclusion that a rational expectations bubble could never get started. But this implies that the speculators draw on information that is not contained in the Ratex models, which predict everlasting price bubbles.

> "This problem is a very general one and appears in all rational expectations models. In all these models there is an infinity of solutions, most of which are unstable. The need then arises to select one particular solution. This selection will necessarily be based on information not contained in the model. Thus even in rational expectations models *ad hoc* assumptions are necessary. Fully consistent expectations appear to be impossible" [De Grauwe et. al., 1993; p.69].

The second logical criticism comes from "chaos mathematics," which deals with the strange properties of non-linear systems of equations. Chaos mathematics shows that when the equations are iterative—that is, when the time paths of the variable(s) being measured are determined by the preceding value(s) of the variable(s)—the paths can become extremely sensitive to very small differences in the constant terms that define the "initial conditions" of the system. And for some initial values no stable path or solution exists.

We illustrate with the logistic equation: $X_{t+1} = kX_t (1–X_t)$, which is widely used to fit time series data with curvilinear time paths. In this equation k is a constant representing the initial conditions at the beginning of the time series; X is the variable being measured, and t stands for the interval between the values of X along its time path

over the entire set of iterations from t=0 to t=n. A different time path is generated by different values of k, but each path is smoothly curvilinear and arrives at a stable value where $X_{t+1} = X_t$, when the number of iterations, n, is less than 5000. For n>5000, however, the paths remain smooth only when k is less than 3, and turn strange when k equals or exceeds 3. Thus between k = 3 and k less than 3.57 the trajectory produces cycles of increasing frequency as the value of k is increased. But when k equals or exceeds 3.57, called the Feigenbaum bifurcation,[7] the trajectories begin bouncing around with no discernible pattern, other than that minute differences in the value of k produce major divergences between the bouncing trajectories.

The implication? In markets for very frequently traded assets, such as for shares of stock or foreign exchange, where asset prices change minute to minute, the reliability of price forecasts of up to only about a week is relatively insensitive to small informational or computational errors. Beyond that time span, sensitivity to minute errors of either type shoots up explosively. The Ratex assumption that rational participants in financial markets can and do operate with accurate long-term forecasts is a pipe dream.

8. **Back to Reality**

The logical demolition of Ratex allows more reality to enter the modeling of financial markets. For example, chartists—short-term market traders who time their buying and selling by searching past price and volume data for hidden behavioral patterns that indicate to them whether the ongoing direction of asset prices and volume of

[7] After Mitchell Feigenbaum, the physicist who discovered the patterns through computer simulations.

transactions will persist or change—are a permanent and sizeable component of financial markets. Yet trading losses should have driven them from the market according to Friedman type models, and they could never appear according to Ratex models. Freed of these blinkered spectacles, many current modeling efforts are now trying to explain financial market dynamics as generated by interactions between "momentum" and "fundamentals" traders, with the relative importance of the two groups shifting in response to recent results.[8]

The demolition of Ratex also requires abandoning its "representative agent" simplification. Analysts cannot avoid dealing with how asset prices get formed in markets composed of traders who disagree on the "true model," and thus on what information is relevant, as well as on market timing strategies. In such markets the neoclassical premise that rationality means maximization goes out the window, at least for rational market participants. This is because the processing of "news" about fundamentals by rational traders has to include assessing how the rational traders with other strategies will react to the "news," along with awareness that they are also assessing reactions to the "news." Since trying to form accurate *a priori* deductions of each others' reactions involves an infinite regress into subjectivity, rational traders have no choice but to resort to inductive reasoning. They validate their investment positions by evaluating the payoffs, but they lack the essential information for determining *a priori* which positions produce the maximum payoffs. Heterogeneous traders arriving at a common

[8]The major foreign exchange markets are dominated by momentum traders. Thus a recent survey of the trading strategies of dealers in the London foreign exchange market, the world's largest, indicates that 90% used charting for short period trading because, they said, it provided more reliable short-period forecasts than econometric models that emphasize fundamentals. For longer period trading, information about fundamentals help shape their position [Macdonald and Taylor, 1992]. The latter, however, is small beer, since over 80% of foreign exchange trades now involve round-trips of a week or less.

set of expectations would be a special case, based on reaching consensus not on the "true model," but on likely reactions to "news." That's most likely to occur during bubbles, when the extended upsurge makes momentum investing for a time "the only game in town," and during crashes, when all try to beat it to the exit at once. All this is a general validation of Keynes'perspective on investor behavior under uncertainty, as put forth in Chapter 12 of his magnum opus.[9]

9. **Policy Implications**

The policy implication is that free capital mobility, which unleashes the innately unstable dynamics of financial markets on the global economy, lacks normative support from economic theory, whether neoclassical or Keynesian. To claim otherwise is false. That still leaves the two historical claims to be dealt with. The next section examines the first of these: the claim that, warts and all, the ongoing liberalization of international trade and capital movements since the early 1970s has raised the growth of world output, trade, and productivity above the growth rates that had prevailed under the more restrictive policies of the Bretton Woods era.

III. Bretton Woods vs. post-Bretton Woods Trends in the Global Economy

[9]A promising way of modeling stock market behavior along these lines is reported in Arthur et al. 1997. The method is to vary the parameters of a non-linear model of heterogeneous investors that allows them to react to disappointing payoffs by modifying their trading strategies. The model, which has an expectational equilibrium built into it, was tested on a computerized, simulated stock market. Whether the traders converged on the equilibrium turned out to depend on the nature and speed of their reactions to the changing prices, volumes and yields generated by the computer runs. The general finding was that the more quickly the traders adjusted their strategies to the market outcomes, the more the market self-organizes into a complex regime. "A rich market psychology—a rich set of expectations—becomes observable. Technical [i.e., chartist -D.F.] trading emerges as a profitable activity, and temporary bubbles and crashes occur from time to time. Trading volume is high, with times of quiescence alternating with intense market activity. The price time series shows persistence in volatility…and in trading volume…individual behavior evolves continuously and does not settle down." [Arthur et al, 1997, p.301]

The Bretton Woods system of pegging member exchange rates to the gold-convertible U.S. dollar faded out soon after 1971, when the U.S. decided to renege on its gold-convertibility commitment. Replacing it has been an evolving assortment of managed and unmanaged floating rates, as well as various forms of pegged rates. Among developing countries, the trend has been toward floating; those with some type of pegged rate declining from 87% of the group in 1975 to 40% in 1997 [IMF, 1999; p.23]. Among the industrialized countries, "dirty floating" soon predominated, that is, intermittent central bank interventions in otherwise market-determined exchange rates. The European Community countries systematized the interventions by setting up the exchange rate mechanism (ERM), a cooperative arrangement for limiting intra-EC exchange rate movements, which was superseded in 1999 by the adoption of a single EC currency, the *euro*.[10] However, the confusing evolution of arrangements has been paralleled by sustained movements toward trade and capital market liberalization in both the industrialized and developing countries. "Indeed, the integration of global financial markets has proceeded much more rapidly than that of the goods markets—in part because the latter has been inhibited by protectionism." [IMF, 1991; p.7]

Nevertheless, the globalizing of capital decontrol is not complete. By the mid-1980s the industrial countries had abolished the capital controls which had been retained during the Bretton Woods era to help stabilize the macroeconomy. But among developing countries, capital decontrol was then just gaining momentum, and despite prodding by the U.S., the IMF and World Bank, the majority still retain some

[10] A recent IMF inventory found it necessary to use two different systems to classify the current exchange rate arrangements of member countries. One system, based on officially announced arrangements has 9

stabilization-motivated controls.[11] However, the Bretton Woods System had also been implemented incompletely. By 1959, most of the industrial capitalist countries had adopted the policy requirements for full IMF membership, but most of the developing countries remained in only partial conformity until the end. Incompleteness is thus a weak basis for dismissing the negative implications for the liberalization drive in the following comparison of the performance of the international economy pre- and post-1971.

1. **Pre- and Post-1971 Output, Investment, Export, and Productivity Growth**

Table 1 compares the post-1971 GDP growth rates by decade of industrial and developing countries with their growth rates during the Bretton Woods years, 1960-71. The sample consists of the 53 World Bank members whose GDP in 1983 totaled at least $10 billion in that year's prices, and for which comparable GDP data are available from 1960 on. [Table 1 about here]

Note that GDP growth slowed in the first decade after the demise of Bretton Woods in over two-thirds of the countries and spread to encompass over 90% of the countries in the second decade. Growth picked up in 1992-98 in 19% of the countries, but over four-fifths continued to grow more slowly than they had in 1960-71. Excluding the nine petroleum exporting countries from the sample shows that the rise and decline of

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classes of arrangements. The other, based on IMF judgments of *de facto* arrangements in operation, has 33 classes [IMF, 1999]..

[11]The same IMF survey of the incidence of capital controls, using 44 types of controls on cross-currency capital transactions, reports the following. As of 1997 the industrial countries had on average only 4 such controls still on the books, compared to an average of 16 for the developing countries. The industrial country controls, however, were directed at such objectives as national security and sectoral protection, whereas many of the developing countries still employed capital controls for macroeconomic stabilization. Some of the developing countries, however, had reached a level of capital account liberalization comparable to that of the industrial countries [IMF, 1999; Chapters III and VI, Tables 5 and 35].

petroleum prices didn't account for much of the slowdown. The sharp rise of oil prices during 1972-81 raised the GDP growth rates of six of the nine above their 1960-71 average, and increased from two-thirds to three-fourths the proportion of the remaining 44 countries suffering slowdowns. But while the sharp drop of oil prices in 1982-91 helped to bring down the GDP growth rates of the oil exporters to below their 1960-71 averages, it didn't prevent slowdowns from spreading to still more of the other forty-four countries.

The growth slowdown encompassed all 19 of the industrial countries of the group, as well as most of the developing countries.[12] However, parallel GDP per capita data indicate a divergence in the depth of the decline between the two sub-groups. Growth of GDP per capita remained positive in all the industrialized countries, but was negative in 1971-82 for five of the 34 developing countries, compared to three in 1960-71, and became negative in 17 of the 34 countries in 1982-91[Felix, 1996: tables 2, 5].

The growth slowdown was associated with a slower rate of expansion of gross fixed investment after 1971. Table 2 reports this for the G-7 and the OECD countries. A recent study reports that the growth of world-wide investment also slackened after the 1960s [Schmidt-Hebbel and Serven, 1999; pp.18-19].

[Table 2 about here]

The upper panel of Table 3 indicates that growth slowdown also encompassed the volume of exports of the industrialized countries after 1971 and, indirectly, that the

[12]Growth slowdown also afflicted the Soviet Bloc countries after the 1960s. However, the causal dynamics prior to the 1990s had, of course, little to do with market liberalization.

slowdown encompassed developing countries' exports after 1984. That is, the growth of industrial country exports, which made up over 70% of world exports, declined more than world exports in 1972-84, but picked up a bit in 1985-97, when world export growth fell more sharply. Table 3 combines with Table 1 to also throw a cold dash of reality on the vaunted acceleration of global economic integration since the demise of Bretton Woods. Panel B of Table 3 shows that the ratio of exports to GDP of the industrial countries rose after 1971; but that's because their GDP growth had slowed more than their exports. [Table 3 about here]

As for productivity growth, Table 4 reproduces OECD data that show a dramatic and sustained drop in the growth of labor and total factor productivity since 1973 of both the G-7 and the lesser OECD countries. Supporters of the liberalization drive can still claim that things might have deteriorated more, had liberalization not replaced the more controlled Bretton Woods system. But such an untestable counterfactual assertion cannot gainsay the fact that to date the liberalization has failed to produce the efficiency gains claimed for it. [Table 4 about here]

2. **Post-Bretton Woods Financial Trends**

The lifting of restrictions on cross-border financial flows reached critical mass by the early 1980s. Funds could now be moved freely between banks and security markets domiciled in different industrial countries and offshore tax havens. By the early 1990s the integrating of national financial markets also encompassed a growing percent of the developing countries. An explosive growth of cross-currency transactions ensued. Table 5 summarizes that growth. It also highlights three consequences that contradict the *a*

priori efficiency claims of the proponents of floating exchange rates and capital decontrol.

[Table 5 about here]

One contradicted claim is that the shift from the pegged exchange rates and capital controls of the Bretton Woods era to floating exchange rates and capital decontrol of the post-Bretton Woods era would bring about more rapid and smoother adjustment of trade imbalances. In the 1970s the claim could still be plausibly defended by blaming the rising volatility on an unusually severe series of exogenous trade shocks, notably the OPEC-led surges in oil prices in 1973-74 and 1979-80. But, as global foreign transactions rose from 3.5 times global exports in 1977 to 34 times global exports in 1986, it became obvious that exchange rate movements among the industrial countries, which were even more volatile in the 1980s, were being driven primarily by financial dynamics.[13] And it also become evident that the payoff expectations motivating the financial movements were pushing exchange rates far out of line from the rates needed to equilibrate exports with imports.

Another efficiency claim refuted by Table 5 and collateral data, is that floating their exchange rates would allow countries to divert much of their official currency reserves from protecting against currency attacks to financing more imports. Table 5 shows that the initial decline of the reserve/export ratio was short-lived, reversing direction after the 1970s. Indeed, to defend against exchange rate volatility and frequent

[13] The monthly volatility of the exchange rates between the dollar, deutchmark, French franc, and yen averaged 22% higher in 1980-84, and 35% higher in 1985-89 than in the 1970s [Blundell-Wignall and Browne, 1991; Table 7].

currency attacks, developing countries have pushed their reserve/export ratio far above the global average. In 1996 the developing countries held 50% of global official reserves, while doing less than 30% of global trade. In 1998, the peak Asian crisis year, the developing country share of official reserves rose to 54%.[14]

A third claim refuted by Table 5 is that floating exchange rates would minimize short-term speculative flows, so-called hot money flows. The Table shows that by 1998 the annual global foreign exchange transactions had risen to $380 trillion, or about 234 times global official reserves (67.8/0.29 = 234). Moreover, over 80% of the transactions related to round trip operations of a week or less [BIS, 1998]. The chief motives have been: operations to hedge against exchange rate risk, speculation on exchange rate movements, and arbitraging of cross-currency interest rate differences. Instead of floating exchange rates reducing hot money flows, they have, in conjunction with capital decontrol, set off a recursive dynamic that magnifies the flows. Exchange rate volatility induces an interplay between hedging, arbitraging, and speculative flows that further increases the volatility, which induces more hot money flows and so on.

Table 6 refutes yet another efficiency claim: that floating exchange rates and capital decontrol would enable movements of the nominal exchange rate and the price level to keep the real exchange rate stable. Stable real rates would, in turn, lower risks for producers and exporters while improving the efficiency of the allocation of global resources. But as Table 6 shows, the real exchange rates of both the developed and developing countries has since 1970 been highly volatile.

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[14]Computed from the export and official reserve tables of the IMF, International Financial Statistics.

[Table 6 about here]

The rates in Table 6 are annual rates averaged over each decade, with the 1970-79 average set at 100. The coefficient of variation—the standard deviation divided by the mean—is a measure of the average volatility of the annual exchange rate in each decade, while the range indicates the percentage spread between the highest and the lowest annual real rate of each decade. For example, in the 1980s the real dollar exchange rate swung nearly 35% from its lowest annual value to its highest. For exporters and importers of the U.S. and the Asian and Latin American countries who had kept their currencies pegged to the dollar, swings of this magnitude had major impacts on their costs and profits. Table 6 shows that the volatility of the real exchange rate of developing countries was even greater than for the industrialized countries. The inter-decade movement of their averages and their intra-decade volatility were both greater than those of the industrialized countries.

Paralleling the explosive post-1970s growth of international capital flows has been the sharp rise of long-term real interest rates. Since the end of the 1970s, they have been averaging well above the levels prevalent in the Bretton Woods era. An accelerating demand for loans to finance long-term investment projects could not have been a causal factor, since, as Table 2 shows, investment growth slowed substantially from the Bretton Woods rates of growth. Since interest rates are a major part of the cost of capital for investment projects, the causality more likely ran from higher interest rates to reduced investment growth, than the reverse. Was it fear of inflation that caused lenders to raise the risk premium on long term lending? That doesn't fit the evidence well. Inflation increased in the 1970s in the industrial countries, when their real long-

term rates of interest declined below the Bretton Woods average rate. Inflation has been on the decline since the early 1980s, yet real interest rates have been averaging double the Bretton Woods rates. Another weak causal candidate is fiscal deficits; they have been on the decline in most industrial countries since the early to mid-1980s.

Capital decontrol is a stronger causal candidate. A recent OECD econometric study has calculated that about half the rise of real long-term interest rates in the industrial countries in the 1980s was due to capital decontrol [Orr et al., 1995]. What might have been the causal connection? Prior to decontrol, when the monetary authorities lowered short-term interest rates to stimulate the economy, the major holders of long-term bonds, notably insurance companies and private pension funds, anticipated, wrongly or rightly, inflationary consequences. However, since fiduciary restrictions blocked them from holding stocks, they could merely move funds from longer to shorter-maturity bonds. Capital decontrol gave them the opportunity to move funds instead between home and foreign bond markets in pursuit of higher yields. That pushed up long-term interest rates, and to a lesser degree, short-term rates as well, and undermined the effort to stimulate the economy by monetary easing. Fearful of capital outflows, governments also began shifting their primary focus from stabilizing high levels of output and employment to stabilizing the price level, which has helped to support the higher levels of real interest rates of the past two decades. In effect, by lifting capital controls, governments gave up most of the ability to adjust real interest rates for other objectives than comforting the bond markets.

3. **Causal Links Between the Global Financial and Real Economy Trends**

The “hurdle rate” concept helps to sketch out a general causal link from the real exchange rate volatility depicted in Table 6, plus the higher real interest rates discussed in the preceding paragraph, and the growth retardation depicted in Tables 1 to 4. The “hurdle rate” is the minimum expected rate of return that will induce risk-sensitive investors to invest in projects in which the expected net revenue stream lags the front-end outlays on the projects, that is, projects with fixed costs. The basic premise is that since information about future costs and revenue is unavoidably incomplete, delaying the project may reduce risk by allowing more information to be gathered about prospective costs and revenues. However, since delaying the project also delays the start of the expected net revenue stream, there will be a difference between the present values of the expected net revenue stream from starting the project today or at a future date. If delaying the project yields the higher discounted net revenue stream, there will be a positive “waiting premium,” defined as the percentage difference between the two discounted revenue streams. The “hurdle rate” is then the cost of capital for a project plus the waiting premium [Dixit, 1992].

A higher real interest rate, as a major component of both the cost of capital and of the discount factor, raises the “hurdle rate” for all projects, but does so unevenly. It tilts investment decisions toward projects with lower fixed costs and shorter lags. Similarly, high volatility of the real exchange rate raises the “hurdle rate” of all projects that directly or indirectly involve exporting, importing and foreign investing by raising their risk of foreign exchange loss. But it penalizes investments more the greater their dependence on foreign exchange, and the longer the lag between start and completion of the project.

Thus it especially discourages investing in export, import-competing, and other projects that have long lags between front-end outlays and revenue receipts.

The dramatic rise of real interest rates and the high volatility of real exchange rates since the demise of Bretton Woods has therefore slowed export growth (See Table 3) and tilted both domestic and foreign investment toward financial asset plays. Strategies to "grow" the company have turned from building new capacity to acquiring existing capacity through mergers and acquisitions (M & A). The successful political and ideological push to privatize state assets has further enlarged domestic and international opportunities to acquire existing capacity.[15] Yet the sharp drop in productivity growth shown in Table 4 suggests that the net contribution to productivity growth from more efficient management of the acquired capacity has been modest at best. The tilt toward M & A, however, helps account for the slower growth of real investment and output growth shown in Tables 2 and 1.[16]

Capital decontrol has also encouraged the transforming of the financial divisions of multinational corporations into major profit centers, pursuing intricate liability and portfolio management strategies. The Bank for International Settlements (BIS), in a post-mortem investigation of the 1992 currency crisis that had weakened the European Community's exchange rate mechanism (ERM), found that multinational corporations

[15]The share of global FDI located in developing countries rose from 22.5% in 1980 to 30.2% in 1997. About half was located in East and South East Asia, and 36% in Latin America and the Caribbean. Between 1990 and 1997 FDI through mergers and acquisitions in developing countries rose fivefold, with 90% of the total M&A representing acquisitions in Latin America and South-East Asia. Acquisitions through privatization accounted for about a quarter of the FDI inflows in Latin America [Millberg, 1999; Tables 2, 8 and p.107].

[16]M&A rose in the U.S. from 15.7% of gross private fixed investment in 1981 to 47.8% in 1996 [Security Industry Fact Book, 1997].

(MNCs) were more important than hedge funds in mounting the speculative currency attacks that set off the crisis. Corporate liability management largely accounts for why the accelerated growth of foreign direct investment (FDI) in both the industrial and developing countries since the demise of Bretton Woods has scarcely lowered the high correlation between gross domestic investment and domestic savings that prevailed in both groups of countries during the 1960s.[17] By borrowing in the currency of the recipient country, and by foreign exchange (forex) option strategies, the MNCs have been able to fob off much of the forex and political risks of acquiring foreign assets by effectively remaining in their home currency. Thus, contrary to the prediction of textbook neoclassical trade theory, the upsurge of FDI has resulted in minor net transfers of real resources to the recipient countries.

> "The vast majority of the capital stock of the foreign subsidiaries of U.S. multinational corporations does not come from the United States but is accumulated or raised locally by the subsidiary.…Informal inquiry with corporations and banks suggests that the obligations incurred by subsidiaries are generally kept in local currency, while the obligations incurred when the parent borrows abroad for use at home is generally hedged back to the home currency….Since the subsidiary's borrowed funds are used locally, there is no cross-border transfer of capital" [Feldstein, 1994; p.690].

The international portfolio investing of insurance, pension and mutual funds, which has expanded rapidly since the1980s, has also been largely hedged against forex and political risks by forex options [Feldstein, 1994; p.685]. The hedging has minimized the net transfer of real resources from portfolio investments as well.[18]

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[17] Martin Feldstein and associates have found that the correlation between gross domestic investment and domestic savings remained around 0.9 for the industrial countries during the 1960s, 1970s, and 1980s [Feldstein and Horiaka, 1980; Feldstein and Baccheta, 1991]. Michael Dooley and associates obtained a somewhat lower but also stable correlation during 1960 to 1980 for the developing countries [Dooley et al., 1987].

4. **Global Financial Markets as Disciplinerers of Policy and Producers of Crises**

The ballooning of financial flows has greatly increased the power of the financial markets to "discipline" national policy-making around the globe. The rise of the dollar value of daily forex trades has vastly overtaken the rise of official reserves. Table 5 shows that in 1977 global official reserves equaled 16.2 days of forex trading, whereas in 1998 they barely equaled one day's global turnover. This precipitous decline of relative "fire power" has greatly reduced the ability of central banks to intervene in the foreign exchange markets to restrain volatility, or to stabilize the real exchange rate. The success of the 1985 Plaza agreement between the U.S., Japan, West Germany, the U.K. and France, to collectively knock down an overvalued dollar, was short-lived. Follow-up collective and individual attempts by the central banks of these countries to stabilize the dollar-yen and dollar-mark exchange rates were soon overridden by the financial markets. Short of ammunition for effectively countering unwanted exchange rate movements, central banks have turned to appeasing the markets. Raising interest rates has become the weapon of choice against runs on the currency, which is essentially rewarding financial capital for not fleeing.

Broader economic and social policies are also being reshaped under pressure from the financial markets. Egged on by the IMF and World Bank, developing countries try to deter capital flight by adopting "sound"policies, notably by measures to stabilize the price level and balance the fiscal budget. They compete for foreign investment by

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[18] In the OECD countries the share of gross investment in financial facilities averaged 104% higher in 1980-93 than in the 1970s [Edey and Hvding, 1995; Table 2]. Financial services have been the fastest growing component of international trade, rising at 13% per annum from 1975 to 1993, while investment in financial facilities was the fastest growing component of FDI in that period [OECD, 1994; pp.38-40].

reducing progressive taxes, deregulating their goods and financial markets, privatizing state assets and functions, and "leveling the playing field" between foreign and domestic investors. Despite their thicker financial markets and greater productive prowess, economic policy making of the industrial countries has also been giving way to these pressures.

Nevertheless, this pro-capital trend of economic and social policy has been paralleled by a rising frequency of national banking and currency crises, with some spilling over into international crises. Nearly three-fourths of the 182 members of the IMF, including a substantial number of developed countries, suffered one or more bouts of banking crises or "significant banking problems" during 1980-95. Banking crises, defined in this IMF survey as "cases where there were runs or other substantial portfolio shifts, collapses of financial firms, or massive government intervention," afflicted 36 countries. "Significant banking problems," defined as "extensive unsoundness short of a crisis," afflicted another 108 [Lindgren et al.,1996; Annex 1]. The recent Asian crisis and its repercussions have since raised these numbers significantly.

An analysis of 26 developing and industrialized countries suffering banking and currency crises during 1980-95, found that financial sector liberalization within the five years preceding the crisis accurately predicted 67% of the banking crises and 71% of the currency crises. Liberalization, by broadening access to foreign funds, had encouraged domestic banks and companies to raise their liability leveraging to crisis levels.[19]

[19] A summary of other studies that highlight the various channels by which financial liberalization has encouraged risky bank behavior is given in the World Bank, 1998/99; pp.135-141.

The social and economic costs of the frequent crises have been substantial. A World Bank study of a sample of developing country banking crises estimates that during the crises GDP declined 14.6% below its trend-line growth. The study also points out that banking crises have become intertwined with currency crises due to "surges of international capital inflows—especially private-to-private flows—to developing countries and the growing integration of these economies with world financial markets." The cost of these twin crises have also been much higher than for each occurring in isolation, averaging 18% of GDP in developing countries and 17.6% in industrialized countries [World Bank, 1998/99; pp.125-26 and Box 3-1].

With events demolishing the welfare claims for capital decontrol, economists have been edging back to the Bretton Woods position that capital decontrol is incompatible with macroeconomic stability. Harvard economist Dani Rodrik observes:

> "A sad commentary on our understanding of what drives capital flows is that every crisis spawns a new generation of economic models. When a new crisis hits, it turns out that the previous generation of models was hardly adequate…The earliest models were based on the incompatibility of monetary and fiscal policies with fixed exchange rates. These seemed to account well for the myriad balance of payments crises experienced through the 1970s. The debt crisis of 1982 unleashed an entire literature on over-borrowing in developing countries, placing the blame squarely on expansionary fiscal policies (and in some countries on inappropriate sequencing of liberalization). But crises did not go away when governments became better behaved on the fiscal and monetary front. The exchange rate mechanism (ERM) crisis in 1992 could not be blamed on lax monetary and fiscal policies in Europe, and therefore led to a new set of models with multiple equilibria. The peso crisis of 1994-95 did not fit well either, so economists came up with yet other explanations—this time focusing on real exchange rate overvaluations and the need for more timely and accurate information on government policies. In the Asian crisis neither real exchange rate nor inadequate information seems to have played a major role, so attention has shifted to moral hazard and crony capitalism in these countries" [Rodrik, 1998; pp.58-59].

The IMF still bases its "sound" policy demands on the first generation of models, which puts full blame on its clients. Events, however, have forced the IMF to muddy its

"soundness" accolade. Overvaluing the exchange rate to anchor the price level and to reassure nervous financial markets, and devaluing to balance the trade account have each qualified as "sound," but with no clarification on how to square the contradiction. The IMF now acknowledges that the crises may involve investor miscalculations, but blames crony capitalism and inadequate information from the client governments for misleading investors. And it clings to the view that more timely and "transparent" information from governments and improved risk evaluation procedures by banks are the keys to enabling free capital mobility to function smoothly.

This tenacious faith in the EMH and in the virtues of policy disciplining by the financial markets brushes aside the accumulation of econometric findings that the actual behavior of foreign exchange markets refutes the predictions of Ratex and the EMH. The "forward discount anomaly," that is, the failure of the forward rates in the exchange markets to predict correctly even the direction in which the future spot rate will move, is now a generally accepted finding [Engel, 1995]. The forecast errors of forex dealers, according to various surveys, are usually serially correlated rather than mean reverting, which indicates that they follow trends in the short-term [Ito, 1990; Takagi, 1991]. And their successive short-term forecasts during 3, 6 or 12 month intervals usually badly over- or under-shoot their forecasts made at the beginning of each interval as to what the spot rate will be at the end of that interval. The practical inference is that in the absence of liquid long-term hedging instruments, investors cannot safely hedge long-term investments against exchange risk by rolling over liquid short-term hedges. Knowing this, investors in a volatile exchange rate environment can be expected to raise the risk premium and the hurdle rate of return for undertaking long-term investments.

The faith also disregards the likelihood that neither "transparency" nor improved risk procedures can stabilize the capital flows. Faster and more "transparent" information about impending difficulties for portfolio investments could merely hasten the onset of currency rises by triggering faster capital flight. The value-at-risk (VAR) models used by international banks to guide their foreign exchange dealing, financing of hedge funds, and customized derivative mongering, have been accused of having encouraged excessive risk-taking, and of having intensified contagion during the 1997-98 global financial crisis [Folkerts-Landau and Garber, 1998]. The charge is that in applying their variance-covariance matrices to historic data, and assuming normal risk distributions, they tended to underestimate the possibility of larger deviations from "normal" that could produce large losses from taking highly leveraged positions. This was, indeed, the basic flaw that bankrupted the highly leveraged Long-term Capital Asset Management Hedge Fund. Contagion was intensified because an unexpected reversal in one country automatically generated, through the VAR models, a reassessment of credit and market risk in a correlated country. This then triggered margin calls and a tightening of credit lines in both countries. Such risk control methods help explain why Malaysia's 1997 imposition of capital controls, and Russia's 1998 default, produced a rapid cutoff of lending to other developing countries. Tightening the VAR methodology, as called for in the proposed new Basel Accord, could well reinforce contagious reactions.

Following the 1994-95 Mexican crisis, Michel Camdessus, the then Managing Director of the IMF, sketched the road ahead for the IMF as follows. "In today's globalized markets, we must ensure that our ability to react approaches the instant decision making of investors, if we want to have the ability to give confidence to markets

and our members" [Camdessus, 1995]. But the message from both economic theory and the array of recent financial disasters is quite the opposite. Slowing the reaction speed of the globalized financial markets to allow the more measured speed of production and policy decisions to take effect, ought to be the primary focus of the IMF and it members.

IV. The Gold Standard and Free Capital Mobility: What are the Policy Lessons?

Advocates of free capital mobility also point to the prolonged stability of the exchange rates under the gold standard to drive home their claim that it and exchange rate stability can be compatible. Factually, the claim is broadly true of the pre-WW I gold standard era, but decidedly not of the short-lived attempt to restore the gold standard after WW I. In this section we contrast the political and structural conditions that allowed stable exchange rates to coexist with free capital mobility during the pre-WW I gold standard with those that enabled speculative flows to bring down the post-WW I restoration, and ask which is the more relevant for policy-making today.

Legal restrictions on the movement of funds across borders were virtually non-existent during 1879-1914, yet most of Europe and its colonial appendages, the U.S. and the semi-independent British dominions, were able to maintain fixed gold-convertible currencies until the end of that era. They endured frequent domestic financial crises, but speculative attacks on their currencies were rare and unsuccessful. This was not true of Latin American and Asian countries with independent currencies. These were much less successful in maintaining fixed convertible exchange rates, and in one case, the Baring Crisis of 1890, Argentina's debt default came close to toppling the pound sterling. The crisis was contained by emergency French and Russian reinforcements of the Bank of

England's threatened gold reserves. Nevertheless, capital flows from London and, to a lesser extent from Paris and Berlin, financed not only foreign trade and overseas investments in railroads, ports, mines and plantations on a grand scale, but also played a generally beneficent role in stabilizing the structure of fixed exchange rates. By contrast, the efforts of the Europeans to restore the gold standard after WW I were plagued by disruptive capital flows, and the short-lived restoration, 1925 to 1931, terminated in world-wide currency and banking crises of unprecedented proportions.

Explanations of why the beneficent role of capital flows turned male ficent after WW I divide, as might be expected, into those emphasizing policy flaws that roiled the post-WW I capital markets, and those emphasizing changes in the international economic structure and socio-political environment that precluded successful replication of pre-WW I policies. As with other large-scale historical events, a definitive resolution is not possible; but in this case plausibility is strongly against mere policy-flaw explanations.

This is notably the case with explanations of the fragility of the post-WW I gold standard which blame the central banks for abandoning in the 1920s the gold standard "rules of the game" that they had allegedly followed faithfully in the pre-war era. In accordance with the "rules," pre-WWI central banks allegedly avoided sterilizing external capital flows. Instead, they raised interest rates when capital was exiting and pushing the exchange rate to the gold export point, and lowered them when capital inflows were pushing the exchange rate to the gold import point. Higher interest rates induced capital inflows, lower rates capital outflows. Close adherence to the "rules" accounted for why gold flows were minimal during the pre-war era; short-term capital movements did most of the adjustment. Confidence that the "rules" were being faithfully

adhered to gave the fixed exchange rate high credibility in the financial markets, so that attacking the exchange rate was viewed as a losing game. This changed after WW I, when central banks, motivated by other priorities, abandoned their adherence to the "rules." The domestic and foreign assets of the major central banks in the 1920s tended to move inversely, clear evidence that they were sterilizing capital flows [Nurkse, 1944]. The fixed exchange rate policy thus became less credible to the financial markets, which responded by engaging in destabilizing exchange rate speculation.

The trouble with this explanation is that the "rules of the game" are little more than an *ex post facto* construction. In reality, sterilization was also widespread during the pre-WW I gold standard as Arthur Bloomfield demonstrated. He applied Nurkse's test to 1880-1914 data and obtained the same inverse relation between movements of the domestic and foreign assets of the major central banks [Bloomfield, 1959]. Central banks even then had multiple objectives, such as relieving domestic banking crises, and providing orderly markets for government debt. Moreover, the lesser central banks took to keeping interest-earning deposits with the Bank of England, the Reichsbank, and the Bank of France as foreign reserves in lieu of gold. Such central bank inter-flows, Eichengreen points out, were central to the stabilizing adjustments during the pre-WW I gold standard [Eichengreen, 1996, Chapter 2]. The European central banks, constrained by their semi-public responsibilities, tended to be supportive of one another. Eichengreen's overall assessment is that the rules of the game concept is much too simplistic:

> "Central banks had some discretion over their policies. They were well shielded from political pressures, but insulation was never complete….Among those in a position to influence policy, there was a broad-based consensus that the maintenance of

> convertibility was a priority….and the stronger that consensus and the policy credibility it provided, the more scope central banks possessed to deviate from the 'rules' without threatening the stability of the gold standard" [Eichengreen, 1996; p.30].

That scope diminished after WW I. The post-WW I gold standard was even more a gold-exchange standard, with the dollar and the pound sterling the dominant reserve currencies. But cooperative management of inter-central bank deposits was often swamped by destabilizing speculative flows. The tribulations of France and Belgium in returning to the gold standard in the mid-1920s fits the multiple equilibrium model, in which speculators profit by forcing a welfare-reducing exchange rate on the government [Obstfeld, 1986]. The initial attempt to make the French franc convertible at a reduced gold content that reflected a plausible purchasing power adjustment from the pre-war franc, was over-ridden by massive capital flight. Only after the right-wing Poincare government replaced the populist Heriot government was the franc stabilized, but with a gold content representing an 80% drop from pre-war [Sicsic, 1992]. Concurrently, the exchange markets drove down the Belgian franc to the same extent from pre-war, although Belgian "fundamentals" called for a substantially higher exchange rate [Aliber, 1962]. Both currencies thus rejoined the gold standard at undervalued exchange rates, whereas the British pound, which rejoined at its pre-war rate, was significantly overvalued. The misalignments contributed to the fragility of the post-WW I gold standard, but neither reflected mere policy mistakes. The franc was driven to undervaluation by the financial markets, which, motivated by hostility to the populist policies of the Heriot regime, overpowered its effort to set higher rates. The return of the pound at the pre-war par was the outcome of an overt political struggle in which the financial "City" won out over the industrialists.

One is drawn, therefore, to explanations that emphasize differences between the pre- and post-WW I political and structural contexts that shaped the expectations and behavior of the financial markets. Eichengreen stresses that during most of the pre-war gold standard era, "those in a position to influence policy" did not include the working classes. "The worker susceptible to unemployment when the central bank raised the discount rate had little opportunity to voice his objections, much less expel from office the government and central bankers responsible for the policy" [Eichengreen, 1996; p.31]. Firms could freely respond to declining demand with layoffs, and wage and price cuts. But by the eve of WW I, "the extension of the franchise and the emergence of political parties representing the working classes raised the possibility of challenges to the single-minded priority the monetary authorities attached to convertibility. Rising consciousness of unemployment and of tradeoffs between internal and external balance politicized monetary policy." Hence he doubts the gold standard would have survived even if the war had not occurred. In the event, "the inter-war gold standard resurrected in the second half of the 1920s shared few of the merits of its pre-war predecessor. With labor and commodity markets lacking their traditional flexibility, the new system could not easily accommodate shocks. With governments lacking insulation from pressure to stimulate growth and employment, the new regime lacked credibility. When the system was disturbed, financial capital that had once flowed in a stabilizing direction took flight, transforming a limited disturbance into an economic and social crisis" [Eichengreen, 1996; pp. 43,46].

1. **Policy Lessons from the Two Gold Standard Experiences**

The lesson drawn by the architects of Bretton Woods was that since the egalitarian pressures of the post-WW I political environment would, and should, persist, restoring stable exchange rates and a more open trading system required restricting international capital mobility. On the other hand, the lesson drawn by post-Bretton Woods neoliberalism is that the pre-WW I compatibility of free capital mobility can be replicated by encasing both free trade and free capital mobility in binding international compacts. But that misreads the pre-WW I gold standard experience. Its stability depended also on structural conditions that are either at odds with, or are absent from, the neoliberal policy agenda. The first is that "those in a position to influence policy" before the war included agriculturists and industrialists. Protecting the exchange rate as trade expanded required most countries to accommodate the two groups with rising import protection. West and Central European farmers received tariff protection against grain and meat imports from Russia and the Western Hemisphere, and industrial tariffs were increased on the European continent and in the U.S., Canada and Australia. Except in Britain, the pre-WW I gold standard era was one of rising protectionism. That is, of course, completely contrary to the current neoliberal agenda.

A second pre-WW I structural feature, free migration, is absent from the neoliberal agenda. For the politically weak European working classes, emigration was an important escape from under-employment and low wages. During 1871-1914 some 40 million Europeans emigrated, mostly to Western Hemisphere countries with liberal immigration policies. The emigrants were about 25% of the population increase of that period, and since they were mainly young males, they constituted a still larger deduction from the European labor force. The distribution of the migrants to recipient countries—

62% to the U.S. around 10% each to Argentina and Canada, and 7% each to Australasia and Brazil—approximated the shares of capital inflows from Europe. Brinley Thomas exploited the evidence that pre-WW I European emigration of labor and capital flowed in parallel long waves, to develop and test with some success a push-pull pattern linking the two. In that pattern rising labor outflows from rural Europe set off higher overseas migration, which induced higher inflows of European capital and higher overall investment rates in the recipient countries. This helped in particular to alleviate European social tensions generated by its agricultural modernization. The pattern faded out with the war and the post-war imposition by the U.S. of severe immigration controls. [Thomas, 1954, 1972]. The restoration of the gold standard thus faced the added difficulty of a tattered migration safety net, and a reduced capacity of European countries to finance investment in the recipient countries that had continued to maintain open immigration policies.

The absence of free migration from the neoliberal agenda implies that today's developing countries don't need a migration safety net to handle successfully the socio-economic and political tensions of their population upsurge and massive rural-urban migration. That implication cannot be derived from historical experience. Nor can it be derived from Heckscher-Ohlin trade theory, which provides the neoliberal agenda with its theoretical rationale for globalizing free trade. Pre-WW I European labor and capital migrated in the same direction, indicating that, contrary to the canonical two-sector version of the theory, the returns to labor and capital were both higher in the recipient countries than in Europe. Currently, the two factors have been moving in opposite directions, but the "factor price equalization theorem," a spinoff from the two-sector

model, provides little support for disregarding immigration.[20] A central premise of the theorem is that all the factor units must be of homogeneous quality. This means that the developing country's labor must embody the skill levels of its developed trading partners *ab initio*; that is, the developing country must already be developed.

A third structural contrast with policy implications is between the slow speed of financial transacting back then, and today's almost instantaneous electronic transacting. Higher transaction costs and information delays impeded international interest arbitraging, so that despite stable exchange rates between the main currencies, covered interest rate parity was not the feature of the pre-WW I gold standard that it is today.[21] On computing pair-wise correlations between monthly money market rates in London, Paris, Berlin and New York during 1876-1914, Oscar Morgenstern obtained an average correlation coefficient of 0.54, and with merely a 0.40 average coefficient between New York and the three European financial centers [Morgenstern, 1959].[22] By raising its bank rate, "the Bank of England might have been able to draw funds from the moon," asserted

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[20]The theorem states that under free trade but no factor migration, the country initially with the higher ratio of labor to capital will export labor-intensive products, which will bid up domestic wages relative to the return on capital. Its trading partner with the lower ratio of labor to capital will export capital-intensive products, which will bid up that country's domestic return to capital relative to wages. Trade expansion under free trade will bring the two factor price ratios to equality. Astonishingly, Carlos Salinas, the Mexican president who engineered the NAFTA agreement, cited the theorem to reassure his skeptical citizens that it was not necessary to include a more open migration policy by the U.S. in the agreement.

[21]Interest rate arbitraging is a strategy of moving funds into a different currency when its short-term interest rate is higher than the home rate. Covered arbitraging avoids exchange rate risk by concurrently selling the foreign currency funds in the forward exchange rate market. Provided the interest spread is greater than the discount of the forward exchange rate from current spot rate plus the transaction costs of carrying out the round trip, a small but sure profit remains. International trading banks are able to earn sizeable profits today by moving large sums in brief round trips between the major currencies in pursuit of very small profit margins, thanks to electronic communications.

[22]Morgenstern's monthly time series data were not deseasonalized. This meant, as he recognized, that the coefficient values were upward biased, because each of the countries involved had similar seasonal variations in money demand and supply, since they shared similar growing seasons, religious holidays, and vacation periods.

a contemporary aphorism, but it would have taken it much more time than today. The "sand in the gears" of the pre-WW I internationally linked financial markets allowed more room for autonomous interest rate policy-setting, and more time for error correcting, than is available today to, say, the directors of the European Central Bank struggling to stabilize the *euro*. In sum, the neoliberal globalization project is launched on uncharted seas, with neither prior history nor adequate theory to guide the navigation. Moreover, two barely submerged rocks lie in the near horizon. Table 7 identifies one of them.

[Table 7 about here]

2. **Hard or Soft Landing Ahead?**

Table 7 shows that since 1984 the real interest rate on 10-year government bonds, often dubbed "riskless," has averaged much higher than the real GDP growth rate in all the G-7 countries except Japan. During the Bretton Woods era, by contrast, that real interest rate averaged considerably below the real GDP growth rate, and merely equaled it during the pre-WW I gold standard era. Only during the inter-war decades did the ratio of the interest rate to GDP growth, elevated by the collapse of GDP during the 1930s, approximate the current ratios. Higher real interest rates should raise the cost of capital and depress equity values. Yet while the growth of physical investment did slacken, bond financing and equity market capitalization boomed. From 1982 until 2000 the global value of bonds listed on the organized bond markets grew two-thirds faster, and the capitalization of the global equity markets grew twice as fast, as nominal GDP. Together with the rising real interest to GDP ratios, the data imply that the share of global

income accruing to owners of financial assets, debt leveraging, and asset inflation, had all been increasing at rates that can't persist indefinitely. The 64 trillion dollar question is therefore whether the liberated financial markets can lower these rates to sustainable limits smoothly, or whether that will require financial crises and collapsing asset values of global proportions. With the economic slowdown now underway, this question is being asked with increasing frequency. For a pessimistic answer from a surprising source, see The Economist, January 27, 2001.

A second, less submerged rock on the horizon is the fragility of the post-1970s arrangement by which the U.S. has maintained its dominance over capital exporting. It's an arrangement without historic precedent. In the pre-WW I gold standard era, Britain had dominated long-term capital exporting by re-exporting part of its sizeable current account surpluses. It also facilitated the servicing of its foreign portfolio by running chronic trade deficits without restricting imports. After the war it was impelled by its shrunken current account surpluses to restrict access to its capital market by non-imperial borrowers, which exposed another critical flaw that helped bring down the post-WW I gold standard. The U.S., which filled the international lending gap in the 1920s, ran trade surpluses which it reinforced with higher tariffs, along with current account surpluses. Servicing existing dollar bonds came, therefore, to depend increasingly on selling additional bonds. When the pessimistic investment climate after the 1929 stock market crash curbed the U.S. appetite for new foreign issues, the pyramid lending pattern also crashed in a wave of defaults on the dollar bonds that deepened the 1930s international financial crisis.

Currently, a less protectionist U.S. has been running large and growing deficits on its current account and financing them and its capital exporting by borrowing abroad. The U.S. net international asset position has thus moved from surplus at the end of the 1970s, to a $1.5 trillion deficit in 1999, about 20% of its GDP. To be sure, most of the external debt is payable in dollars, and until recently the net outflow of profits from foreign equity investment in the U.S. had averaged merely $10 billion per annum. However, that's begun to rise fairly substantially as past Japanese mal-investments in U.S. real estate get corrected, while even more of the recent foreign investments in the U.S. are being consummated through the exchange of shares that adds nothing to the financing of the current account deficits. Concurrently, the growth of interest payments on U.S. private and government foreign debt has begun exceeding the growth of nominal GDP. In his recent assessment Wynne Godley sees in all this the imminence of a "debt trap" dynamic. He projects that within two years raising U.S. interest rates will raise debt servicing costs enough to require still more borrowing to cover the current account deficit. Yet inducing larger and larger inflows from increasingly nervous foreign lenders will soon require such high interest rates and fiscal austerity as to impart a deflationary bias to the U.S. and the world economy [Godley, 2000].

The U.S meets Argentina? Not quite; the U.S. can still print the currency required to service its foreign debt. Godley's specific projections are intended primarily to highlight a warning that the U.S. pattern of financing its capital exports by borrowing abroad is becoming non-viable. His policy message is that, while correcting with preemptive policy adjustments will be economically costly, leaving the correction to the

markets will be even more costly. It's an assessment more redolent of the 1930s than of the golden age of the gold standard.

V. Reforming the Global Financial Architecture: Forward to Globalizing Neo-Liberalism or Back to Bretton Woods?

There is now broad consensus that something must be done to reduce the incidence of international financial crises. As Gerald Corrigan, of Goldman, Sachs and former president of the New York Federal Reserve Bank, observes, "By any standard the frequency and consequences of these events are simply too great." In the jargon of financial bureaucrats, the "global financial architecture" needs reforming. Beyond that, the consensus fragments. The reform agenda of the IMF, and of the central bankers and finance ministers of most of the industrial powers who dominate the IMF, would extend free capital mobility while requiring developing countries to adapt their policies and financial structures in order to handle the volatile capital flows more effectively. Kept off that agenda is the Bretton Woods alternative: to restrain the freedom of financial capital to move globally, in order to dampen its volatility and weaken its power to coerce domestic economic policies.

Each approach to global financial reform is thus embedded in a different perspective on the relationship between capitalism and the general welfare. Bretton Woods was intended to accommodate Welfare Capitalism. It subordinated its promotion of freer trade and FDI to the promotion of domestic economic stability and social welfare objectives by its signatories. The expansion of trade and the revival of FDI during the Bretton Woods era occurred on a base of national economic structures that in all the industrialized countries, and in some of the developing countries, consisted of large

government shares of GNP, progressive tax systems, and closely regulated financial markets that facilitated the effectiveness of counter-cyclical macroeconomic policies. The "Golden Age of Capitalism" with its relatively fast, stable, and equitable economic growth was thus an era of "Big Government" and regulated markets. On the other hand, the official agenda for financial architectural reform is embedded in the more comprehensive neoliberal program to shrink "Big Government" by privatizing government functions, reducing tax progressivity, and deregulating commodity and labor as well as financial markets, on the assumption that it will accelerate economic growth and improve general economic welfare. International compacts to restrict the freedom of action of individual governments is central to each approach, but the Bretton Woods effort is the more modest. The Articles of Agreement sanction quantitative export, import and exchange controls, and regulate exchange rates, but leave domestic policy alone. The neoliberal effort is far more intrusive. The WTO, the Mutual Agreement on Investment (MAI), and the policy conditions the IMF attaches to its credits, focus on restructuring domestic as well as foreign economic policies and legal arrangements in order to create a globalized economy that will be propelled and regulated primarily by free market forces, with the liberated financial markets as the top overseers.

1. Neoliberalism's "Trickling Down" Welfare Claim in Theory and Practice

This essay has targeted thus far two of the welfare claims rationalizing the neoliberal program. Part II demonstrated that there is no support from economic theory for the contention that free market forces generate stable long-run economic growth, while Part III showed that the attempt to implement that program has decelerated rather than speeded up economic growth. The current foreboding which haunts supporters of

the neoliberal program, however, extends beyond economic instability. As the recent Davos meetings illustrate, the global economic elite is also beginning to worry about the political consequences of the growing "North-South income divide" and heightened unemployment and income concentration within both the North and the South. During the Cold War years such worries led to elite acquiescence to welfare capitalism in the North, and to foreign aid to "win hearts and minds" for democratic capitalism in the South. Currently the concern is that populist backlash in both North and South will reverse the trend toward free market globalization.

The concern has emerged because events have refuted a third welfare claim of neoliberalism. This is the claim that the counter-egalitarian tax and spend reforms it has been promoting will pay off economically for all the major sectors of society, because faster economic growth necessarily increases the demand for labor, which bids up wages. A rising tide that raises all yachts must also raise all rowboats. Instead, as Table 8 shows, the tide weakened and unemployment rose after the demise of Bretton Woods in both the U.S. and the E.U. But the table also shows different welfare consequences from the slowdown.

[Table 8 about here]

Through 1995, employed E.U. workers came off much better than did employed U.S. workers. Benefits were also higher for the E.U. unemployed, while a relatively higher per capita growth rate made it easier fiscally for the E.U. countries to sustain more generous unemployment and welfare programs. Table 9 also shows that wage inequality declined between 1980 and 1995 in Germany, and remained nearly constant in Sweden,

France, and Italy. Not so for the U.S. and Thatcherized Britain, whose wage spread topped the other E.U. countries in the Table after 1980. Thus the shares of the real wage increases going to the lower half of the wage range remained roughly constant in France and Sweden and rose in Germany and Italy. By contrast, the U.S. real wage decline was concentrated in the lower half of the range.

[Table 9 about here]

However, the 1996-2000 data of Table 8 appear to validate the rising tide welfare thesis of neoliberalism. U.S. growth per capita rose sharply, overtaking the E.U. growth rate and almost the 1960-73 U.S. average growth rate. Concurrently, U.S. unemployment fell sharply and its average real wages turned up, overtaking the E.U.'s. Reinvigorated, neoliberals began citing the U.S. as the model to follow, noting especially the flexibility of its labor markets and the relative austerity of its welfare programs. However, current trends are casting some doubt on the durability of the 1996-2000 pattern. Since the 3rd quarter of 2000, GDP growth of the U.S. has dropped below the E.U.'s, and its unemployment rate has been rising, while the E.U.'s has been falling. Back to the pre-1996 pattern? It's too soon to say. It has, however, persuaded U.S. politicians and businessmen, who had been hyping the American model at previous Davos meetings, to suspend the hyping at this year's meetings.

Among the developing countries, Latin America, which has gone furthest in adopting neoliberal reforms, also illustrates most graphically the weakness of the "trickling down" effects of neoliberalism. The effect of the reforms has been to increase income inequality still further in a region whose inequality already had topped all other

regions of the world. Moreover, the increased inequality has included a relative decline of well-paying professional and industrial jobs, which has pushed large segments of the professional and skilled labor cadres into lower paying jobs and self-employment.

Argentina is an especially poignant example. Throughout most of the post-war decades it had proudly viewed itself as a Latin American exception, with a large middle class, well-educated labor force, strong unions and a European level of income inequality. But this has been changing dramatically in the past decade. By the mid-1990s income inequality was 46% higher than the West European level, and 86% higher than Scandinavia's.[23] In the past six years Argentina's open unemployment has ranged between 14% and 21%. Last year 29.4% of the population was classified as impoverished by World Bank criteria, of which almost half, according to recent Argentine studies, had formerly enjoyed a middle class life style [Latin American Regional Reports: Southern Cone Report, December, 19, 2000; p.7].

The decline of well-paying jobs and the higher unemployment throughout the region reflect two main features of the neoliberal reforms. One, the rolling back of the state through privatizing public assets and public functions, eliminated more professional jobs from the public sector than it created in the private sector. Across the region the adverse impact appears to have been most severe in Argentina, whose percentage of university graduates in the labor force is the region's highest, and who had led the region in aggressive and extensive privatization during the 1990s.[24]

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[23] Computed from Gini coefficient estimates in Szekely and Hilgert, 2000, Table 1. The Gini coefficient is a widely used overall index of inequality. Argentina's coefficient is still 11% below the Latin American average.

The other feature was eliminating industrial protection and opening up fully to FDI. A recent analysis by the Economic Commission for Latin America and the Caribbean (ECLAC) of 1990-96 data found that while labor productivity increased, industrial employment fell in the more industrialized Latin America countries. Concurrently, industrial production had become more import-intensive, and thus more sensitive to exchange rate movements and currency crises than in the bad old days of import-substituting industrialization [Katz, 2000].

The study identifies two restructuring patterns responsible for these results. In the Southern Cone countries and Brazil, industrial growth was concentrated in large capital and natural resource intensive firms producing mainly for export. The expansion was led by MNC subsidiaries, and reflected the general restructuring by large industrial corporations from vertical integration to reliance on international outsourcing, which meant greater reliance on imported inputs at the expense of local suppliers. Concurrently, trade liberalization and exchange rate overvaluation allowed cheaper Asian imports to take over much of the home market for labor-intensive consumer products, such as clothing, shoes and furniture. In Mexico, low wages and proximity to the U.S. market promoted the *maquiladora* pattern--assembling imported components for re-export--but here also cheaper imports undercutting the labor-intensive consumer goods industries resulted in a net drop in Mexican industrial employment. The study concludes that the free market reforms show "a growing incapacity to generate new jobs or maintain

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[24]The hard hit also include failed Argentine businessmen forced to become cab drivers and messengers. 35,000 small Argentine industrial and agricultural firms were forced to close shop in the past decade [Moffett and Druckerman, 2001].

the employment levels of a decade ago in the industries of diverse Latin American countries."

Faster economic growth could reverse the trend, but under the free market reforms faster export growth and larger capital inflows are the main mechanisms for speeding up economic growth. And the more comprehensive the free market reforms the less developing countries are able to regulate either of the growth mechanisms, or to expand domestic demand as an alternative to export-led growth. During export booms all signals are on go; capital pours in, allowing easier monetary-fiscal policies to magnify the expansion of income and home demand. But when the boom ends portfolio capital exits, leaving behind an increased foreign debt to be serviced with shrinking export revenues.

Too often the residue is an exchange rate crisis, leading to a domestic financial crisis because businesses can no longer service their bank loans, and domestic banks that had borrowed abroad during the export boom can no longer service their hard currency debt. Governments then feel impelled to "socialize" the bank debt servicing to stanch the banking crisis and to regain the confidence of the foreign financial markets, which requires deeper cuts in other fiscal outlays to contain the fiscal deficit. The larger the foreign debt accumulation the harsher the adjustment burden required to maintain debt servicing and regain capital market confidence. The political costs of going to the IMF for short-term hard currency help will then appear less onerous than going it alone, even though that help requires acceptance of the IMF conditions, which include more free market reforms, and thus greater dependence in the future on export-led growth and the vagaries of the international capital markets. And as such dependence spreads through the developing countries, it is more likely that the abrupt withdrawal of portfolio capital

from a country hit by a currency crisis will spread the crisis by sparking withdrawals from other developing countries with open capital markets and comparable structural characteristics [Kaminsky et al., 2000]. The free market approach requires developing countries to climb the economic development ladder with one hand tied behind their backs.

2. Prospects for Returning to a Bretton Woods Global Financial Architecture

Clearly, a Bretton Woods architectural arrangement would open up more policy space for countries to adjust their exchange rates and interest rates to meet domestic economic and social needs than does the neoliberal approach. Indeed, the arrangement enshrined in the 1945 Articles of Agreement remains the IMF's charter, and defines the obligations of the IMF member countries, though now "honored more in the breach than in the observance." Financial economist Martin Mayer concludes a critique of the risk reduction claims of the official architectural reforms with this trenchant observation:

> All countries have signed off on Article IV of the Articles of Agreement of the International Monetary Fund, requiring that "each member shall: (1) endeavor to direct its economic and financial policies toward the objective of fostering orderly economic growth with reasonable price stability…[and] (2) seek to promote stability by fostering orderly underlying economic and financial conditions, and a monetary system that does not tend to produce erratic disruptions." These, not the facilitation of trading opportunities or capital movements *per se*, are the relevant objectives. It's the economy, stupid, not the market for paper [Mayer, 1999].

Disregard of the intent of Article IV as well as of Article VI, which authorizes member countries to use capital controls, and the IMF to deny its credits to members using them to finance capital outflows, went largely unchallenged while its economic justification, that neoliberal reforms were a superior way of fulfilling Article IV's objectives, held sway. That the disregard persists, despite growing awareness that the

justification is fundamentally flawed on both theoretical and empirical grounds, illustrates that infusing the architectural reform effort with a Bretton Woods perspective requires winning political as well as analytic battles. Under existing global conditions, it especially requires altering power balances in the major capitalist countries where the international financial markets and the MNCs are headquartered.

A possibility, or a cry of despair? I suggest it's the former for two main reasons. One, already mentioned, is the growing fear among the business elites that popular reactions to the income polarization trends and frequent financial crises in developing countries will cause abrupt policy reversals from neoliberal reformism to spread out of control. The second is that the stress of exchange rate volatility and further financial crises could harden the existing semi-open regional trading blocs into closed and antagonistic regional trade and currency blocs, as happened in the 1930s following the collapse of the gold standard. Stabilizing the dollar, euro, and yen real exchange rates would alleviate much of the stress, which would require, *inter alia*, joint action to curb, rather than expand, free capital mobility. The pressure from the non-financial business elite for action along these lines could open up interesting possibilities for political alliances of convenience to implement Bretton Woods type financial reforms.

3. An Enhanced Package of Global Financial Reforms: Bretton Woods Light

The following package includes items already on the official reform agenda along with others that have been struggling, thus far unsuccessfully, to force themselves on that agenda. Combined, they are an updating of the Bretton Woods architecture commensurate with the changed economic and political environment of today. They

could help restore some of the stable and equitable economic growth of yesteryear, while adding institutional building blocks for erecting a genuinely integrated global economy of the future. The package, which has eight components, is part of the recent statement by the ICFTU and allied union groups to the Prague meeting of the Boards of Governors of the IMF and World Bank [ICFTU et al., September, 2000]. Six components are directed at crisis-prevention and at weakening the power of the international financial markets over domestic macro-economic policies. The other two are intended to help equalize the adjustment burden between the creditors and developing countries hit by debt servicing crises. We list first the six crisis-prevention components and discuss the merits and technical and political obstacles to implementing each of them. These are:

1. A small globally uniform tax on all private foreign exchange transactions, a.k.a. the Tobin tax.
2. A target zone arrangement to limit exchange rate fluctuations between the Big Three currencies; the dollar, the euro and the yen.
3. Increasing capital requirements on inter-bank loans in the Basel Accords.
4. Raising the capital requirements on derivatives issued by banks.
5. Curbing tax and regulatory evasion via off-shore havens.
6. Re-authorizing developing countries to impose capital controls as needed.

The Tobin Tax

Named after Nobel Laureate economist James Tobin, who proposed it soon after the breakup of the Bretton Woods exchange rate system, the tax is a “market-friendly” alternative to direct capital controls. That is, the tax allows the market to the screen out hot money from longer-term financial flows. Around 80% of the $380.2 trillion annual global foreign exchange transactions in 1998 (see Table 5) involved round trips of a week or less. Most related to interest rate arbitraging and open speculation by banks,

investment houses, hedge funds and MNCs, taking very large short-term positions to exploit transitory and usually small profit margins. Covered interest rate arbitraging, described in footnote 21, in which banks move huge sums between currencies to exploit tiny profit margins, would be squeezed most by a small Tobin tax.

To illustrate: assume an interest rate difference of 1% between U.S. and U.K treasury notes, and that the cost of carrying out the various steps of covered arbitraging is 0.8%. If the operation involves a weekly round trip, and is repeated weekly, the annual net return on the outlay is 10.4% (0.2% x 52). A 0.1% Tobin tax on each leg of the round trip would wipe out that return, so that an interest rate difference of 1.2% would be needed to restore the after-tax return to its previous level. Uncovered arbitraging and speculating on future exchange rate movements are motivated by higher expected returns since they are riskier, but the tax also reduces the expected returns from such operations, and thus their volume. The higher the tax rate, the more the tax bite reduces the short-term flows, and the more autonomy countries will have over their interest rate policy. On the other hand, a small tax would bite minimally into the much larger profit margins of extended round trip activities, such as exporting and importing. Indeed, these get an offsetting benefit; to the extent the tax reduces exchange rate volatility, it reduces exchange rate risk and the need to incur hedging costs.

The annual tax revenue could be substantial. Preliminary guesstimates by Professor Ranjit Sau and me are that a 0.1% tax, applied to the 1995 global forex turnover of $307 trillion, using a range of elasticity assumptions and other adjustments, could have generated annual revenue of between $148 billion and $180 billion, while the turnover volume would have declined between 20% and 30%, as a result of the tax [Felix

and Sau, 1996; Table 9.3]. Applying the same assumptions to the higher 1998 global forex turnover would raise the revenue figures by 24%.

The technical problems of enforcing the tax are intricate, but not insuperable. The tax collecting could be done by the existing taxing agencies of each participating country, with the revenue pooled and administered by a central authority created for that purpose, or by a reformed IMF. Participation could be globalized by making it an additional requirement for remaining an IMF member in good standing. Two alternative proposals have been proposed for curbing evasion of the tax by moving forex transactions to tax-free havens. One is to levy the tax at the deal-making site, the most expensive and difficult of the transaction operations to move offshore, especially to tax havens with minimal human resources in place, such as the Cayman Islands [Kenen, 1996]. An alternative proposal is to use SWIFT, the world-wide inter-bank electronic payment system, plus the national electronic equivalents, to collect the tax. These systems are used for large value financial transactions between forex trading banks that collectively make up the so-called "wholesale" foreign exchange market. The orders and settlement of trades in these electronic systems are closely supervised by central banks which under this proposal would collect the tax. Dealers would presumably pass the tax to their non-financial "retail" customers by widening the bid-ask spread [Schmidt, 2001]. How to ensure that the different types of cross-currency trades, from spot transactions to complicated over-the-counter derivative transactions, are taxed equitably has also elicited a variety of plausible suggestions. In other words, as regards the technical feasibility of the Tobin tax, the positive indications are strong enough to warrant adding the tax to the official reform agenda for more in depth investigation.

The main obstacles to getting it on the agenda are political. Official Washington has manifested overt hostility to even considering the Tobin tax, such as suppressing the attempt of the United Nations to promote a volume of conference papers on the feasibility of the Tobin Tax by threatening to suspend its dues payments to the U.N. (For a detailed account see "Le projet de taxe Tobin, bete noire," Le Monde Diplomatique, February, 1997). On the other end of the political spectrum are the growing grass roots pro-Tobin tax movements of NGOs and unions that have been spreading from Europe to Canada, Latin America and Asia. These movements have been winning over parliamentarians, but are stonewalled thus far at the ministerial level.

Getting the Tobin tax on the official agenda would bring to the fore other political problems, related to the fact that almost all the foreign exchange transactions subject to tax take place in a few financial center countries. The foreign exchange markets of Britain, the U.S. and Japan handled 56% of all global forex transactions in 1995, with Britain alone handling 30%. Adding Singapore and Hong Kong (13%), and Switzerland, Germany and France (14%), brings the total to 83% of all global transactions handled in the forex markets of 8 countries. Ten smaller industrialized countries handled all but 2% of the remaining transactions.[25] This highly skewed tax collecting means that agreement between the G-7, Switzerland and, now, China, could make the Tobin tax happen, but they would also dominate the setting of its terms, such as the minimum global tax rate, and the distribution of the tax revenue. Converting the powerful is essential for getting the tax adopted on terms that advance the humanistic goals for the global economy of its

[25]The adoption of the euro in 1999 is altering the distribution by eliminating most forex trading in the national currencies of the Euroland countries, with the currencies themselves scheduled to disappear in

current supporters. A daunting task, though future financial crises should bring realistic segments of the economic and political elites on board.[26]

Target Zoning the Big Three Currencies

Limiting fluctuations between the dollar, euro and yen exchange rates is a loose equivalent to the fixed dollar price of gold that had anchored the Bretton Woods exchange rate regime. The three currencies are the dominant "vehicle" currencies today. Prices of many internationally traded commodities are quoted in one of the three, international financial settlements are via one of the three, and official foreign exchange reserves are held in one or more of the three. Limiting the volatility of the Big Three exchange rates would substantially reduce the exchange rate risk that haunts international trade and finance.

To achieve this, the monetary authorities of the U.S., Euroland, and Japan would have to agree on exchange rate midpoints and on upper and lower limits to fluctuations of the market rates around the mid-points. Enforcement would require the Big Three central banks to coordinate their buying and selling of the three currencies in the foreign exchange market to keep fluctuations within the chosen limits. To provide more flexibility, the arrangement should include a mechanism for adjusting the midpoint rates when confronted with major alterations in trading or other economic conditions. This

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2002. The next BIS census of foreign exchange trading, scheduled for Spring, 2001, will provide the first comprehensive data on the extent of the changes.

[26]Political turnarounds can be quite rapid. In the aftermath of the U.S. stock market crash of October 1987, the U.S. Congress commissioned studies and held hearings on the feasibility of imposing a securities exchange tax on stock market transactions to reduce volatility. An important paper supporting the feasibility of such a tax was co-authored by Lawrence Summers, then a Harvard professor. Interest in the

also follows the Bretton Woods model, which permitted countries to move to a new fixed exchange rate when confronted with a "fundamental disequilibrium."

Political/economic tradeoffs are involved. Setting narrower limits would demand closer coordination of domestic interest rates by the Big Three. Setting wider limits reduces the interest rate coordination requirements, but allows more currency speculation and exchange rate risk to persist. A coordinated Tobin tax would make narrow limits more economically as well as politically feasible. The tax would make currency speculation more costly, and the accumulated tax revenue could be devoted in part to reinforce the market interventions of the Big Three central banks to keep exchange rate fluctuations within the desired limits. And as illustrated previously, the tax would also ease the interest rate coordination required to protect the limits

Currently, there are more overt indicators of support at the elite level for a target zone than for the Tobin tax. At the March 1999 meeting of the G-7 finance ministers, the French, German, and Japanese ministers apparently sought to put target zoning on the agenda, but were shot down by the U.S. Nevertheless, *ad hoc* collective interventions in the currency markets have been occurring with U.S. participation. And the demand from the non-financial business sector for more stable real exchange rates, which motivates such intervention, could become a powerful political force for target zoning. The large swings in real exchange rates shown in Table 6 have been generating large swings in the profits and competitive positions of exporters, importers, and import-competing firms. Even MNCs that produce and outsource in various currency locales, have not been

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tax faded as share prices began their extended boom, while Summers converted into a free capital mobility enthusiast on being appointed to a high position in the U.S. Treasury.

exempt from adverse effects of such swings. A major factor in the upsurge of FDI in the past two decades has been MNCs slicing up the production chain and outsourcing segments around the world where costs—primarily labor costs—are cheapest. But unexpected mid-term swings of the real exchange rates, which also alter relative labor costs between different locales unexpectedly, confound investment decisions. That helped generate the global excess capacity problems now afflicting the automotive, micro-chip and other MNC-dominated industries. Rising interest in target zoning could also arouse non-financial business interest in the Tobin tax as a facilitating mechanism.

Raising the Capital Requirements on Inter-bank Lending

The Basel Committee on Banking Supervision (BCBS), like street cleaners following the circus elephant parade, has been engaged since the mid-1970s in cleaning up successive financial messes produced by banks feeding on new opportunities created by financial globalization. Currently, it is engaged in revising the 1988 Capital Adequacy Accord, rendered inadequate because of financial innovations and "regulatory arbitraging" by the banks. The background is as follows.

The 1988 Accord was a response to the over-lending by leading U.S. and British banks to Latin American banks and governments which helped produce the Latin American Debt Crisis of the early 1980s. The lenders had protected themselves against exchange rate and interest rate risks by denominating the loans in foreign currency—chiefly dollars--and requiring the interest rate to be adjusted to changes in LIBOR (the London inter-bank offer rate), the lending banks' cost of funds benchmark. Comforted, the banks began offering loans of up to seven years maturity, indeed, pushing such loans

to fill their portfolios. In doing so, they overlooked default and liquidity risk. When that hit hard in 1982, major international banks, heavily leveraged on their equity capital, found themselves with non-performing Latin American loans which greatly exceeded that equity capital. Since the defaulted loans could only be sold to bottom-fishing speculators at a fraction of face value, some leading U.S. banks had become technically insolvent, others nearly so. For example, Citibank, whose capital to asset ratio was then 4%, had 12% of its portfolio in Latin American loans. Had the liquidation value of those loans fallen to one-third or less of their book value, Citibank would have been insolvent. In addition, the troubled banks, major foreign exchange dealers, held large deposits of domestic and foreign correspondent banks. To add to the insolvency threat, massive deposit withdrawals by nervous correspondent banks could have produced with electronic speed a liquidity crisis of international proportions.

Emergency intervention by a consortium of the monetary authorities of the major creditor countries, the IMF, and the lead lending banks averted the crisis with emergency loans to sustain debt servicing by the heavily indebted. Debtor governments were in turn forced to take over servicing the foreign debts of their private banks and corporations. The lending banks were also required to contribute to the bailout funds, which they did until they had rebuilt their balance sheets sufficiently by 1987 to enable them to refuse to contribute further. Helping the balance sheet improvement were higher resale prices for Latin American loans. These rose because Mexico and other heavily indebted Latin American countries were privatizing state assets on a large scale and were willing to accept bank debt paper at or near face value as payment for the assets. This enabled the

lending banks to sell their Latin American paper at less extreme discounts to buyers of the privatized assets.

From this experience the BCBS decided that the key to preventing a recurrence was to prevent the banks from incurring excessive credit risk. The 1988 Accord tried to do this by classifying bank assets in risk classes, with higher capital/asset ratios assigned to riskier assets, and by requiring the bank's overall capital/asset ratio--a weighted average of the capital/asset ratio of each class multiplied by the percentage of total assets in that class—to equal or exceed 8%. But once the Accord went into effect in the early 1990s the banks began regulatory arbitraging--that is, searching for loopholes that would allow them to stretch their capital over larger quantities of assets. They found a key loophole in the risk-weighting scheme, which set the capital/asset ratio for inter-bank loans of less than a year at 20% of the ratio assigned to loans to private non-banking firms. This induced the international banks to start short-term lending on a large scale to banks in Asia, Latin America and the ex-Soviet Bloc countries, which then onlent the funds at large spreads to domestic borrowers. The Asian crisis began when the foreign banks abruptly cut back lending to Thai banks. The Thai banks lacked the foreign exchange to pay off the large mass of rapidly maturing foreign loans, while the foreign exchange reserves of the central bank of Thailand turned out to be much too small to fund a lender-of-last-resort rescue. The IMF worsened matters by tying its emergency credits to the central bank to a sharp increase of interest rates in the hope of re-attracting foreign bank loans. This failed, in part because the interest rate spike bankrupted many of the domestic borrowers, rendering insolvent a large swathe of Thai banks. Instead,

frightened by the Thai debacle, the foreign banks helped spread the Asian crisis by refusing to roll over loans to Indonesian and Korean banks.

The low risk-weight on inter-bank lending also raised the prospective return on bank capital from interest rate arbitraging and exchange rate speculation relative to more traditional bank lending. This has contributed to exchange rate volatility. It has also raised the risk that sudden withdrawals of inter-bank deposits could globalize liquidity crises, a risk that was barely averted when the Latin American debt crisis erupted in 1982.

The impending new Basel Accord is an attempt to close these and other loopholes by replacing the fixed risk-weighted capital requirements of the 1988 Accord with more flexible ones that are intended to be better measures of the true credit risks associated with the various bank assets. Two alternative weighting schemes are proposed by the BCBS draft document. The new "standardized approach" requires banks to apply risk-weights based on external ratings of their private and government borrowers' credit by rating agencies, such as Moody's and Standard & Poor. The poorer the external credit rating, the higher will be the capital requirement. The alternative is to allow banks with "sophisticated" in-house risk management systems judged adequate by the bank supervisory authorities, to use their systems for setting capital requirements, but with oversight by the bank supervisors. The supervisors would also be empowered to raise the capital requirements when judged inadequate, and to require the banks to publicize more details about ownership and liability and asset structures in order to enable the capital markets to better value the bank shares.

The finalized new Accord, which may incorporate modifications after further consultations with banks and other interested parties, is scheduled to be announced by the end of 2001, and to be fully implemented in the 12 countries of the BCBS by 2004. It is also likely that, as was the case with the 1988 Accord, adoption will spread to the majority of other countries.

Will this do some good? Perhaps. Will it eliminate financial crises and other major problems related to financial globalization? Surely not. The BCSB document acknowledges that it may not even do a great deal to reduce bank credit risk, the limited objective of the new Accord. The IMF's news letter summarizes the document's assessment as follows:

> "Clearly, the reliance on external ratings and banks' own systems implies new sources of risk and uncertainty in the supervisory process. The "science" of credit-risk measurement is still young and unproven over a full credit cycle, and banks' incentives remain fundamentally different from those of depositors and bank supervisors" [IMF Survey, February 5, 2001, p.39].

The assessment is warranted. The credit rating agencies have tended to follow the cycle rather than anticipate it. They failed to downgrade any of the Asian firms and economies until after the Asian crisis erupted. Their subsequent downgrading has been criticized for exacerbating contagion, for example, by downgrading Brazil's bonds, which encouraged a greater exodus of portfolio capital. And the internal risk management systems of the "sophisticated" international banks blessed the heavy pre-crisis lending to Thailand, Indonesia, and Korea, before signaling the abrupt reversals that set off the crises.

However, the increased responsibility and power given the bank supervisory agencies, notably central banks, by the new Accord, offers an opportunity to pressure for altering the controlling boards of the central banks to give stronger representation to groups, such as unions, that are focused on the larger problems related to financial globalization. It would be wise to exploit that opportunity.

Raising Capital Requirements on Bank-issued Derivatives

Derivatives are financial contracts whose value 'derives" from the current and/or expected future prices of underlying ownership claims such as shares and bonds. The transaction can be in a single currency, or can involve two or more currencies, in which case exchange rates are involved. Derivatives can be traded on organized exchanges, in which case, the exchange standardizes the size and other features of the contract and require a down payment or margin from the transacting parties, in return for which the exchange guarantees payment should one of the parties default. Alternatively, banks, acting as intermediaries, can customize a contract between the contracting parties, or to use the financial jargon term, the counter-parties. These are called over-the-counter or OTC contracts. For the buyer derivatives are a way of placing a big bet on the price movement(s) of the underlying asset(s) while risking only a small payment. The counter-party issuing the derivative, on the other hand, who takes the bigger risk of having to deliver the underlying asset at a loss, will cover that risk by asking a high price for the derivative contract, and hedging his risk by simultaneously buying derivatives on assets whose price he expects will move oppositely from the asset he might have to sell.

The volume of OTC derivative transactions began exploding shortly after the 1988 Basel Accord went into effect. The banks seized on derivatives as a way of leveraging their capital by earning fat fees without having to record any additional assets on their balance sheets. In 1999 the annual global value of the underlying assets tied to derivative transactions reached $675 trillion, most of it tied to OTC contracts engineered by banks. This compares to world GDP in 1999 of $31 trillion. Although the data are not precise on this, the majority of the contracts appear to be cross-currency OTC contracts, and hence have an important impact on foreign exchange rate movements.

The risk to the banks is primarily settlement risk. In the event one or more of the counter-parties involved in the derivative should default, how much residual responsibility for insuring the payment flows to the other counter-parties would devolve on the bank that arranged the contract? The OTC contracts provided little information on this and other essentials to bank supervisors or to each other. This became evident in the Long Term Capital Management bankruptcy in Fall, 1998. LTCM, a highly regarded Wall Street hedge fund, with two Nobel Laureate Economists as partners, became engaged in an enormously leveraged bond speculation scheme that turned sour. It had borrowed heavily on its reputation from nine premier Wall Street banks and investment houses, none of which knew of the extent of each others' loans to LTCM. In a timely act of crony capitalism, Alan Greenspan, the chairman of the Federal Reserve, coordinated a temporary bailout of LTCM by its bankers to keep it from having to dump its bonds and derivative contracts at once. With Russia's bond defaults that summer as background, the dumping would have threatened a meltdown of bond prices and a freezing up of the global bond markets.

The BCBM reforms are attempting to target the OTC derivative loophole by assigning capital requirements on such bank activity, and by requiring more public information on the contracts. This would be a beneficial, but modest step, though it would still permit the OTC derivative activity of banks—a socially dubious aspect of Casino Capitalism-- to persist. A more decisive step would be to require that all derivative trading be done through organized exchange markets.

Curbing Tax and Regulatory Evasion via Off-Shore Havens

The O.E.C.D. is now engaged in trying to effect this long-needed reform, but is encountering strong resistance from the tax havens. In November 2000 it delivered a memorandum to 35 tax haven countries and territories demanding that they abandon an array of "harmful tax practices" within five years. The memorandum gave the 35 countries and territories until July 2001 to accept the demands and begin the reform process or face sanctions from the 29 O.E.C.D. members. However, when the governments of the tax havens fiercely rejected the demands, the O.E.C.D. backed off. It abandoned its July 2001 deadline and agreed instead to a joint meeting between representatives of the tax havens and O.E.C.D. countries. The acrimonious meeting, held in early January of this year, managed to produce a face saving agreement to set up a joint task force that will try to come up with a mutually acceptable definition of "harmful tax practices" and ways to reform them [New York Times, January 10, 2001].

The task force is scheduled to report to the Tokyo meeting of the O.E.C.D. and Pacific Nations in mid-February 2001, so it will soon become clear whether it has been able to arrive at an acceptable compromise that doesn't amount to abandoning the

O.E.C.D.'s objectives. If not, the O.E.C.D. will have to decide whether to return to strong-arm methods for getting its reform demands implemented. Clearly, it is of considerable importance to support the O.E.C.D. demands. They would at least partially close one of the channels by which capital is able to undercut progressive taxation and evade capital controls.

Re-authorizing Developing Countries to Impose Capital Controls as Needed

Article VI of the IMF's charter, as pointed out earlier, already authorizes capital controls. But since the IMF has been ignoring that article, instead high-pressuring developing countries to eliminate controls, re-authorization would call off the dogs.

The six components of the crisis prevention package reinforce each others' effectiveness. To date, however, only components 3, 4, and 5 are on the official agenda. The unfinished task is to build up enough political support to force adoption of the other three.

4. Equalizing Debt Payment Adjustments in Financial Crises.

In the absence of bankruptcy laws, the incentive is strong for each creditor to rush to seize debtor assets before the others can. The rush results in the dismantling of firms with merely liquidity problems that could be overcome if given time, and therefore in a larger aggregate loss to creditors as well as a haphazard distribution of the losses. Creditors as well as debtors thus have had a joint interest in governmental mechanisms that would overcome the "free rider" problem and allow more orderly and rational debt workouts. Over the decades this led in capitalist economies to the buildup of bankruptcy laws and bankruptcy courts with the power to oversee such workouts. When creditors

cannot all agree on the terms, the courts can enforce “stand-still agreements” on creditors. These allow debtors to suspend part or all debt servicing for a period, during which creditors are required to keep rolling over their existing loans. The courts may also press for agreements that require creditors to take “haircuts,” that is, agree to forgive some of the debt and share the losses. One of the many reasons the “global economy” is at a primitive and dangerous stage of development is that it lacks such global institutions for orderly, equitable workouts of international debts.

Instead we have partial ad hoc arrangements. Those handling intergovernmental debts in arrears are relatively equitable and farsighted, compared to those dealing with debts incurred in the global financial markets. The Paris Club, a consortium of creditor governments set up to deal with arrears on government loans to developing countries, has generally been willing to extend maturities and adjust interest payments on such loans. The Jubilee 2000 movement has managed to extract partial forgiveness of the foreign debts of poor African nations because the debts involved are all owed to foreign governments, the World Bank, and the IMF. On the other hand, the IMF-led bailouts, the chief arrangement for adjudicating payment crises of the developing countries, have been focused on minimizing losses to the creditor banks and bondholders.

The IMF bailouts of the 1990s have, however, evoked an array of unofficial proposals for “bailing in” private creditors. Most of the proposals focus on two main themes: temporary debt “stand-stills” for developing countries in payment difficulties, and comprehensive rescheduling of debts to private lenders on the lines of the Paris Club programs for intergovernmental debt. The ICFTU supports both types of workout proposals [ICFTU, 2000]. And the IMF has recently taken tentative steps in support. It

has come out in favor of “collective action” clauses in bond contracts, which would allow holders of a majority of a bond issue to act on behalf of all the bondholders in negotiating workouts. In the current payment arrears of Ecuador, Pakistan, and Ukraine, the IMF deliberately kept its bailout funds too low to cover full debt service in order to pressure the private creditors to come up with more funds. However, it remains to be seen if the latter, a shot across the bow of the bond markets, heralds a full scale follow-through in the event of defaults by large debtors.

The proposals recognize that for the workouts to be orderly rather than disruptive, participation of the private creditors would have to be mandatory, since unilateral action by a single important developing country would likely produce panic in the bond markets and an across the board shutoff of new lending to other developing countries [Group of 22, 1998]. Agreement among the leading creditor countries to require mandatory participation would be difficult to obtain. (Radelet, 1999, is a useful survey of the proposals and the barriers to adoption.) Many of the proposals suggest using the IMF as the credit-worthiness and enforcement agency. It would be empowered to set the conditions for debtors in arrears to merit favorable treatment. And there is the rub. Unless the IMF changes its neoliberal tune, its conditions are likely to run contrary to key components of the Bretton Woods Light package. Supporters of that package should be on guard against this.

VI. Concluding Remark

A decade ago, with confidence in her neoliberal reforms running high, Margaret Thatcher famously dismissed her critics with the remark, “There is no other choice.”

Today with neoliberal theory and policy in disarray, those seeking a more orderly, equitable world economy can respond confidently "There is no other choice but to try."

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Table 1
Global growth of GDP: floating rate decades compared to 1960-1971

	1972-81		1982-91		
A. Total sample of countries					
	Number of countries	%	Number of countries	%	Nu co
Decade growth higher than 1960-71	17	32.1	5	9.4	
" " lower " "	36	67.9	48	90.6	
B. Less oil-exporting countries[a]					
Decade growth higher than 1960-71	11	25.0	4	9.1	
" " lower " "	33	75.0	40	90.9	

Source: World Bank, World Tables.
[a] Oil Exporters : Algeria, Ecuador, Egypt, Indonesia, Mexico, Nigeria, Norway, United Kingdom, Venezuela

Table 2

Annual Growth of Gross Fixed Investment at Constant Prices, 1959-97

	G-7 Countries	OECD Countrie
	(Percentages)	
1959-71	6.1	6.0
1972-84	2.5	2.3
1985-97	3.6	3.7

Source: OECD. Economic Outlook Annex Tables, various issues.

Table 3

Annual Growth of Exports of Goods and Services at Constant Prices, and Ratios of Export to GDP Growth, 1959-97

(Percentages)

A. Average Annual Export Growth[a]

	G-7 Countries	OECD Countries	World
	(Percentages)		
1959-71	7.8	8.5	8.2
1972-84	6.2	6.3	7.6
1985-97	6.6	6.7	5.9

B. Ratio of Exports to GDP Growth[a]

	G-7 Countries	OECD Countries
1959-71	1.7	1.8
1972-84	2.1	2.3
1985-97	2.5	2.5

[a]G-7 and OECD data are weighted averages, using relative GDP as weights. World Exports for 1959-74 are deflated by the average of U.S. imports andexport price indices, for 1975-97 by the IMF unit export value index.

Sources: OECD Economic Outlook Annex Tables, various issues, and IMF International Financial Statistics, various issues.

Table 4

Annual Productivity Growth of the OECD \business Sector, 1960-97						
	Labor Productivity			Total Factor Productivity		
	1960-73	1973-79	1979-97	1960-73	1973-79	1979-97
	(percentages)					
G-7 Countries	4.5	1.6	1.4	3.1	0.7	0.8
Other OECD Countries	5.0	3.1	2.6	2.9	1.2	1.4
All OECD Countries	4.6	1.8	1.6	3.0	0.8	0.9

Source: OECD, Economic Outlook, June, 1999, Annex Table 59.

Table 5

Ratios of Annual Global Foreign Exchange Turnover to Global Exports and Official Reserves[a], 1977-1998

	Annual Forex Turnover	Forex/Exports	Global Reserves/Exports
	(US$ trillions)		
1998	380.2	67.8	0.29
1986	67.5	33.9	0.28
1977	4.6	3.5	0.23
Memorandum Items		1961-65	1966-70
1. Global Reserves/exports		0.43	0.32
2. Reserve Position with IMF/exports		0.03	0.03

[a]Reserves include official gold holdings.

Sources: Bank for International Settlements, Central Bank Survey of Foreign Exchange Activities, triannual surveys, 1986-1998. Daily turnover data multiplied by 250 trading days. U.S. Federal Reserve Bank of New York, Summary of Results of the U.S. Foreign Exchange Market Turnover, (New York, September, 1992). U.S. 1977 estimate divided by 0.17, the average U.S. share of global turnover computed from the BIS surveys. .International Monetary Fund, International Financial Statistics, various issues.

Table 6

Decade Variation and Annual Volatility of Real Exchange Rates, since 1970(1)
by Developed and Developing Country Groups
(1970-1979 mean rates=100)

	1970-1979		1980-1989	
	Mean	Coef. Of Var.	Mean	Coef. Of Var.
I. Developed Countries				
1. United States	100.00	0.0742	107.66	0.1205
2. U.S., Germany, Japan	100.00	0.0577	102.76	0.0930
3. Euroland(2)	100.00	0.0738	93.91	0.0719
4. Others(3)	100.00	0.0628	104.28	0.0559
5. Overall Average	100.00	0.0671	102.15	0.0859
II. Developing Countries				
1. Asia(4)	100.00	0.1178	94.13	0.1785
2. Latin America(5)	100.00	0.0786	97.91	0.2888
3. Middle East-Africa(6)	100.00	0.2535	125.67	0.3171
4. Overall Average	100.00	0.1500	105.90	0.2673

Footnotes:

(1) Tradeweighted Indices

(2) Euroland: Austria, Belgium, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Portugal, Spain

(3) Others: Australia, Canada, Denmark, New Zealand, Norway, Sweden, Switzerland, United Kingdom

(4) Asia: Hong Kong, India, Indonesia, Korea, Malaysa, Pakistan, Philippines, Singapore, Taiwan, Thailand

(5) Latin America: Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Peru, Venezuela

(6) Middle East-Africa: Kuwait, Morocco, Nigeria, Saudi Arabia, South Africa, Turkey

Source: JPMorgan Guarantee Trust Co., World Financial Markets

Table 7

Real Long Term Interest Rates[1] Less Real GDP Growth Rates of the G-7 Countries:

Thirteen Year Averages, 1959-97

	Canada	France	Germany	Italy	Japan	U.K.	U.S	G-7 Average
1959-1971	0.65	0.22	0.88	0.49	n.a.	0.71	0.59	0.55
1972-1984	0.63	0.80	1.42	-0.24	0.29	-0.11	0.52	0.47
1985-1997	3.26	2.86	2.35	3.75	0.90	1.63	1.67	2.34

Memorandum: Pre-1959 G-7 Average Ratios

1881-1913	0.97
1919-1939	2.40
1946-1958	0.36

[1]Annual interest rates on 10 year government bonds deflated by national CPI.

Sources: Interest rates and CPIs from IMF, International Financial Statistics. Real GDP growth rates, OECD, Economic Outlook Annex tables. Pre-1959 data, Michael Bordo, "The Bretton Woods International Monetary System: An Historical Overview," Table 1, in Michael Bordo and Barry Eichengreen eds. A Retrospective on the Bretton Woods System, (University of Chicago Press, 1993). Real GDP per capita growth rates in Table 1 were multiplied by population growth rates.

Table 8

Annual Rates of Unemployment and the Growth of Real Wages and GDP per Capita in the United States and the European Union, 1960-2000

	Unemployment Rate		Real Wage Growth (percentages)		GDP per Capita Growth	
	U.S.	E.U.	U.S.	E.U.	U.S.	E.U.
1960-73	4.81	2.35	1.45	2.09	2.72	4.76
1974-79	6.68	4.57	0.03	5.30	1.62	2.52
1980-89	7.16	9.23	-0.85	3.32	1.49	2.23
1990-95	6.32	9.85	-0.68	1.07	0.85	1.55
1996-2000	4.62	9.82	1.60	1.02	2.48	2.05

Sources: Sheldon Friedman and Christian Weller "One More Time: Labor Market Flexibility, Aggregate Demand and Comparative Employment Growth in the U.S. and Europe, Economic Policy Paper E011, AFL-CIO Public Policy Department, Washington, D.C. 1998,. Tables 1,8,10. O.E.C.D. Economic Outlook June, 2000, Tables 1,12,16,21.

Table 9

Trends in Wage Earnings Inequality in the U.S. and Europe, 1980-95*

	Early 1980s		Mid-1990s		Change 1980-1995	
	50/10	90/50	50/10	90/50	50/10	90/50
France	1.67	1.94	1.65	1.99	-2	+5
Germany	1.65	1.63	1.44	1.61	-21	-2
Italy	1.96	1.50	1.75	1.60	-21	+10
Sweden	1.30	1.57	1.34	1.59	+4	+2
United Kingdom	1.69	1.65	1.81	1.87	+12	+22
United States	1.78	1.96	2.00	2.21	+22	+25

*Measured as the ratio of the earnings of the 50^{th} percentile worker to those of the 10^{th} percentile worker (50/10), and of the earnings of the 90^{th} percentile worker to those of the 50^{th} percentile worker.(90/50).

Source:Lawrence Mishel, Jared Bernstein, and John Schmitt, The State of Working America, 1996-97 Economic Policy Institute, Armonk, N.Y., M.E, Sharpe, 1998. Table 8.10.