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**Credibility and Cooperation
under the Gold Standard**

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The one feeling shared by all observers of the current international monetary system is dissatisfaction with the performance of floating exchange rates. Even countries like the United States whose political leaders are for ideological reasons favorably inclined toward floating have been forced to abandon policies of benign neglect when exchange rates get out of line. Sporadic intervention is no more popular than benign neglect. It is criticized for creating uncertainty, in part owing to doubts that exchange-market intervention unaccompanied by changes in monetary and fiscal policies can have more than transitory effects.

These observations have prompted growing discussion of alternative international monetary arrangements. The menu of options ranges from the Williamson-Miller blueprint for target zones to Richard Cooper's scheme for a world money and Ronald McKinnon's proposal for reestablishment of the gold standard, perhaps without a monetary role for gold.^{1/}

A common element of all these schemes and a source of their appeal is that they envisage the establishment of rules-based system. Under the target zone proposal, governments may possess discretion over whether or not to intervene within the band but are compelled to act once the exchange rate reaches the border of the zone. Under the world money proposal, governments will forgo the right to alter the exchange rate at all. The McKinnon gold standard proposal would involve similar restrictions.

The advantage of rules-based systems, it is argued, is that they resolve the problems of credibility and cooperation that have so bedeviled international monetary relations in recent years. By investing in expensive reform of the international monetary system and adopting stringent rules, governments can banish doubts that they are committed to stabilizing exchange rates. By rendering their commitment to stable rates fully credible, institutional

reform can minimize the intervention in which central banks will be forced to engage. Take the case of a weakening exchange rate. If the credibility of the government's commitment is in doubt, capital may flow out in anticipation of devaluation. This will enlarge the amount of intervention the authorities must undertake to stabilize the exchange rate. But if their commitment is credible, capital will flow in instead in anticipation of profits once the authorities intervene to prop up the exchange rate. The amount of intervention actually required will be minimized.

A further advantage of a rules-based system, the argument continues, is that it minimizes the need for cooperation. Each country simply complies with rules mandating specific changes in domestic policy in response to movements in its exchange rate. This is Voltairian international economics, in which each country tends its own garden. It renders irrelevant the obstacles to international policy coordination to which so much attention has been devoted in recent years.^{2/}

I shall argue that this view of fixed-rate systems like the classical gold standard is a misreading of the historical record. Though it is correct to argue that credibility was central to the successful operation of the gold standard, credibility was in fact much more fragile and tenuous than standard accounts suggest. Credibility derived not from rules but from the nature of domestic politics and from a particular conception of how the economy worked. It is unlikely that the domestic preconditions that rendered the commitment to the gold standard credible can be replicated today.

The view that there was little if any role for international cooperation under the gold standard is seriously misleading. The successful operation of that system was based on extensive and systematic cooperation. International cooperation grew more critical as the period progressed and as international monetary arrangements took on an increasingly modern form. Moreover, credibility and cooperation were linked. Ultimately, fixed

exchange rates were credible because the commitment to their maintenance was international, not merely national, and because it was backed up by systematic cooperation.

1. A Precis of the Gold Standard

The classical gold standard, rather than the normal way of organizing international monetary affairs prior to 1914, was a relatively short-lived system.^{3/} England, admittedly, had gone onto the gold standard in 1717, when Sir Isaac Newton, as Master of the Mint, set too high a silver price of gold and drove full bodied silver coins out of circulation. But other countries were slow to join the gold standard club. Bimetallism remained the order of the day. Countries shifted back between gold- and silver-based circulation as the mint prices of gold and silver diverged from market prices. Some countries experienced extended periods of inconvertibility and floating rates.

Only after 1870 was there a broad-based movement toward gold. Germany led the way in 1871 by establishing a new gold-based currency unit, the mark, and using the indemnity received as victor in the Franco-Prussian war to acquire gold reserves. Denmark, the Netherlands, Norway and Sweden followed, as did France and the associated countries of the Latin Monetary Union (Belgium, Switzerland, Italy and Greece). Gold became the monetary standard in every European country except a few that retained inconvertible paper. In 1879 the gold standard reached across the Atlantic, as the United States formally terminated the Greenback Period by restoring gold convertibility, and into Asia when Russia and Japan adopted gold standards. Some countries, including Italy, did not legally adopt gold convertibility or peg their currencies to gold until the turn of the century. Several of the larger Latin American republics also restored gold convertibility after 1870 but were forced to suspend it once again around 1890. Any birthdate for a truly international gold standard would therefore be approximate. But clearly the earliest conceivable date is 1879.

Three factors account for the rise of the gold standard in the final decades of the 19th century. First, development of the steam engine reduced the risks of counterfeiting.^{4/} The smallest practical gold coins were still too valuable for use in everyday transactions. The solution was to introduce token coins valued at more than their metallic content. Minting these coins to high standards with steam-powered machinery greatly increased the cost of counterfitting.

Second, massive silver discoveries starting in the 1860s threatened to kindle inflation in silver standard countries. Between 1861 and 1874, the silver price of gold had risen by some nine per cent, and more of the same was to come. The realization that the silver standard was incompatible with price-level stability provided a motivation to switch to gold.

Third, the leading commercial and financial power, Great Britain, was already on the gold standard. Britain had emerged as the leading exporter of both manufactures and financial capital and the leading market for producers of other countries. There was a suspicion that her financial arrangements were somehow key to her economic success. More concretely, adoption of the gold standard and maintenance of a stable sterling exchange rate simplified trade with Britain and inspired the confidence of British foreign investors. The gold standard might thereby facilitate growth by stimulating commodity exports and capital imports.

A distinctive feature of the classical gold standard was how its operation depended on a combination of rules and discretion. The rules are familiar. The domestic currency price of gold was fixed. There were no restrictions on the import and, more importantly, export of gold. The monetary liabilities of the central bank were tied to the gold reserve. Under the proportional system, which prevailed in countries like France, the value of gold reserves could not fall below a fixed proportion (say, 35 or 40 per cent) of the currency circulation. Under the fiduciary system, which prevailed in countries like Britain, there existed an

unbacked fiduciary issue fixed in amount, but additional notes had to be fully backed with gold. In principle, these rules should have left individual countries little control over their money supplies. An attempt to expand money supply would have led to a balance of payments deficit and an accumulation of domestic currency in foreign hands. Foreigners would have returned it to the issuing authority for conversion into gold, until the money supply was restored to initial levels. Central banks concerned to limit reserve losses should have refrained from engaging in such initiatives in the first place.

In practice, central banks possessed considerable discretion in the application of the gold standard rules. The maintenance of excess gold reserves allowed them to alter domestic money and credit conditions without violating reserve restrictions. If a central bank possessed gold in excess of its 40 per cent statutory minimum, it could reduce the discount rate or initiate expansionary open market operations without immediately violating gold cover regulations. This central banks habitually did. Arthur Bloomfield, in a classic study, found that a wide range of central banks sterilized reserve inflows and outflows (neutralized their impact on domestic financial markets) in fully half the years between 1880 and 1914.^{6/}

This raises the question of how countries that sterilized reserve losses avoided exhausting their gold reserves. In part the answer is that, when crisis loomed, they terminated the policy of sterilization and allowed gold movements to affect domestic financial market conditions in the requisite direction. But in part the answer can be found in how the other gold standard rules were applied. The domestic-currency price of gold was not always rigidly fixed but could be varied via the "gold devices," which widened or narrowed the bid-ask spread on gold.^{5/} In crises, the convertibility of notes into gold could be suspended, as in England in the crises of 1847, 1857 and 1866. The free export of gold was similarly at the authorities' discretion. This was officially the case in "limping gold standard" countries like France, Belgium and Switzerland, which could provide gold or silver

at their option. Other central banks, such as the German Reichsbank and the Swedish Riksbank, made clear that attempts to obtain gold at inconvenient moments might provoke an unfavorable response. Domestic banks that did so might lose their access to the discount window, for example.

The operation of the gold standard clearly was more complex than suggested by standard accounts emphasizing its rules-based dimension. To determine whether this experience has any relevance to current discussions of international monetary reform requires a better understanding of how the system truly worked.

2. Credibility

When discussing the credibility of the commitment to gold, one must distinguish countries at the core of the gold standard system -- Britain, France and Germany -- from those at its periphery. In the core countries there was little doubt that authorities would eventually take whatever steps were necessary to defend the central bank's reserve and to stabilize the domestic-currency price of gold. If the exchange rate fell toward the gold export point, funds would flow in, in anticipation of the capital gains that would accrue once the central bank intervened to strengthen the rate. Because there was no question of the commitment to the existing parity, capital flows responded quickly and in considerable volume. The exchange rate consequently strengthened of its own accord. Stabilizing speculation thereby minimized the need for intervention.

What rendered the commitment credible? First, there was little notion that internal and external balance were at odds. After World War I, defense of the gold standard and the reduction of unemployment came to be seen as conflicting objectives. If a country suffered simultaneously from a balance of payments deficit and high unemployment, the central bank still could raise interest rates to redress the deficit. But doing so might exacerbate

unemployment. Political pressure to avoid heightening the unemployment problem gave central bankers pause when contemplating measures to restore external balance. The credibility of their commitment to the gold standard might be cast into doubt.

Not so before the war. Unemployment emerged as a coherent social and economic problem only in the final decade of the 19th century.^{7/} In Victorian Britain, social commentators referred not to unemployment but to pauperism, vagrancy and destitution. In the U.S., persons who had lost their jobs were described as out of work, idle or loafing, but only rarely as unemployed. In France, the authorities referred not to unemployment but to vagrancy and vagabondism. These terms betray a lack of appreciation of how macroeconomic events, notably the trade cycle, affected the labor market. Because its social consequences were inadequately appreciated, there was only limited pressure for central banks to adapt policy to employment targets.

The limited political power of the working classes sustained this state of affairs. In many countries, the franchise remained limited to property owners. World War I transformed this situation by compelling the enfranchisement of virtually all those enlisted to fight the war. Prior to that time, Parliamentary labor parties possessed little power even in countries like Great Britain where industrialization and the creation of a wage labor force had been underway for a century. Not until the 20th century, and in particular until the massive rise in unionization during and immediately after the Great War, did trade unions acquire the power to influence the formulation of economic policy.

Even where officials wished to respond to unemployment, there was little agreement of how it was affected by monetary policy. There existed no well articulated theory of how monetary conditions could be manipulated to stabilize trade or reduce unemployment, like that developed by Keynes and others between the wars and enshrined in textbooks after World War II. Those who focused on changes in money and credit, such as Ralph Hawtrey,

argued that they tended, perversely, to amplify the trade cycle.^{8/} Rather than advocating active monetary management to stabilize the economy, the majority of observers advised a passive and therefore predictable monetary policy. Defense of the gold standard, to be achieved through the maintenance of external balance, was seen as conducive to the expansion of trade and foreign lending upon which the rapid growth of the world economy was based.

These points should not be exaggerated. By the first decade of the 20th century, unemployment had become a burning social issue throughout the industrial world. The spread of unionism and extension of the franchise had heightened the political influence of those vulnerable to unemployment. Although the links between monetary policy and the macroeconomy remained inadequately understood, there was a growing consensus that high interest rates first depressed inventory investment, then depressed fixed investment, and finally depressed the rest of the economy.^{9/} Policymakers were not insensitive to these considerations. Differences between the gold standard era and subsequent periods were differences in extent, not differences in kind.

There were differences in kind in the realm of fiscal policy. There was virtually no use of fiscal devices to achieve macroeconomic objectives, and minimal use of them to achieve distributional goals. There was no belief that budget deficits or changes in the level of public spending could be used to stabilize the economy. Governments strove to run balanced budgets. In the main they succeeded. If one wishes to interpret the gold standard as a rules-based regime, then one must emphasize this fiscal rule.

For tax revenues, governments relied primarily on import duties. The distributional consequences of tariffs were widely understood and hotly contested. In Germany, the famous alliance of iron and rye (heavy industry and large-scale agriculture) combined to secure tariff protection. In the U.S., eastern manufacturers were similarly able to secure a

tariff. In Britain, exporters in alliance with commerce and finance successfully defended free trade. Other groups -- agriculture in Britain and the U.S., light industry and dairy farming in Germany -- were adversely affected and lobbied for changes in fiscal policy. But changes in tariff revenues were accompanied by changes in government expenditure. This minimized fiscal imbalances among countries that threatened to undermine the stability of the exchange rate system. Fiscal coordination was achieved, de facto, by the operation of a balanced-budget rule. There were virtually no budget deficits to be financed through the issue of currency and bonds. This greatly simplified the task of monetary management.

The same forces operated at the periphery of the gold standard system, but less powerfully. The experience there was one of repeated convertibility crisis, suspension of the gold standard and devaluation. If a country had a track record of devaluing, the credibility of its commitment to the gold standard was cast into doubt. Capital was less likely to flow in stabilizing directions in response to disturbances, rendering all the more likely additional convertibility crises and forced devaluations.

Several factors contributed to this unhappy state of affairs. First, countries at the periphery were subjected to severe external disturbances.^{10/} This raised the costs of adjustment, encouraging governments to opt instead to finance external deficits and, ultimately, devalue. Agricultural exporters and primary producers suffered more severe terms-of-trade disturbances than did producers of industrial goods. They tended to experience simultaneous shocks to the current and capital accounts of their balances of payments. A creditor country like Britain, France or Germany could respond to an export shortfall by raising interest rates and curtailing foreign lending. A debtor country, in contrast, had little control over the direction of long-term capital flows. A shock to its export markets producing a deterioration in its current account also rendered it a less

desirable place in which to invest, leading to a simultaneous deterioration in its capital account.

In addition, there was a tendency to enlist monetary policy in the cause of financial deepening and economic development.^{11/} Liberal credit policies encouraged the extension of loans by banks to industry. Deficit spending on public works was justified even when financed by monetization. In Argentina, Brazil and Chile alike, one can find instances where monetary policy was subjugated to development policy. That the recipients of these loans were politically privileged both encouraged the extension of credit and reduced the likelihood that it would be devoted to the most productive uses. The absence of autonomous central banks in many of these countries figures in the story, for it implies that monetary policymakers had less independence than at the core.

Finally, the distributional consequences of the policies required for maintenance of the gold standard were especially prominent at the periphery.^{12/} There was a pronounced gap between the landowners and exporters likely to benefit from inflation and devaluation and the wage earners likely to suffer from reduced real incomes. Often landowners and exporters were one and the same. If inflationary policies which reduced the real value of mortgage debts led ultimately to devaluation which enhanced the competitiveness of exports, so much the better.

Superimposed upon this distributional conflict was the influence of silver mining interests. Where silver mining was important, there existed a natural constituency opposing the gold standard and demonetization of silver. After 1860, new discoveries depressed the market price of silver. Representatives of silver mining regions in the Western United States and South America pressed their governments to peg the nominal price of silver, purchase excess supplies, and use them as backing for notes. In the U.S., the Sherman Silver Purchase Act of 1890 increased the rate at which silver purchases injected money into

circulation. The gold losses which resulted came within a hair's breadth of driving the U.S. off gold. Only with William Jennings Bryan's defeat in the 1896 Presidential Election were the silverites defeated and was the credibility of the U.S. commitment to the gold standard affirmed.

3. Cooperation

But it is likely that the commitment to gold still would have lacked credibility in the absence of international cooperation. Cooperation was most extensive among the core countries. The Bank of England stood ready to let gold go when it was needed in the United States. The Bank of France stood ready to lend specie to the Bank of England or purchase sterling bills when the British gold parity was endangered. The Reichsbank and the Russian Government came to the aid of the Bank of England in periods of exceptional stringency. The favor was returned, as in 1898 when the German banks and the Reichsbank obtained assistance from England and France. The smaller gold standard countries of Europe, notably Belgium, Finland, Norway and Sweden, repeatedly borrowed reserves from foreign commercial banks and governments.

The resources upon which any one country could draw when its gold parity was under attack thus far exceeded its own reserves. This provided countries additional ammunition with which to defend their gold parities. What rendered the commitment to the existing set of parities credible, ultimately, was that the commitment was international, not merely national. That international commitment was activated through international cooperation.

The pivotal role of cooperation was especially evident in periods of financial distress. In 1894-95, due to the operation of the Sherman Silver Purchase Act, U.S. reserves fell to alarmingly low levels. With time the disequilibrium could be eliminated by reducing the rate of silver purchase and retrenching on the budgetary front. But the immediate problem

was to replenish reserves so as to restore confidence in the currency. The Secretary of the Treasury therefore arranged a loan from a syndicate of domestic and foreign bankers. Leading members of the syndicate were the Morgan and Rothschild houses in London, which received tacit support from the Bank of England. The \$60 million loan enabled the U.S. to surmount the crisis.

This episode encourages the belief that Great Britain functioned as an international lender of last resort under the gold standard. In fact, it could equally be the international borrower of last resort, as illustrated in 1890 and 1907. In 1890, the insolvency of the House of Baring, which had borrowed short in order to purchase foreign bonds now rendered unmarketable by the Argentine revolution, threatened to undermine confidence in other British financial institutions. Foreign deposits in London were liquidated, and gold drained from the Bank of England. The Bank's reserve fell alarmingly. The central bank faced a dilemma: it could restrict credit to protect its gold reserve, or it could lend £4 million to Baring to buttress domestic financial stability. There seemed to be a tradeoff between actions to restore internal balance and actions to restore external balance.

In the end, it was possible to address both problems. The Bank of England borrowed £2 million of gold from the Bank of France and £1.5 million of gold from Russia. Together these loans almost exactly financed the bailout of Baring. Within days the Bank of France made another £1 million of gold available. Confidence in the domestic financial system was restored. Equally importantly, the knowledge that the excess reserves of France and other countries would be made available to England reinforced confidence in the British gold standard. The crisis quickly subsided.^{13/}

In 1906, rapid expansion in the United States led to extensive borrowing in London and a drain of bullion and coin from the Bank of England. Again, the threat to sterling's convertibility was contained through international cooperation. Less is known about the

timing and form of cooperation on this occasion.^{14/} Contemporary sources suggest that the Bank of France first offered a loan to the Bank of England, and then purchased sterling on the open market to support the British exchange rate. There was a corresponding drain of gold from the Bank of France and a flow of precious metal toward the Bank of England. The French refrained from raising the discount rate, the normal response to gold losses.

Difficulties resurfaced the following autumn in the wake of the American financial panic. A wave of bank failures in the United States led to a shift out of deposits and into currency, a surge in the demand for gold in the U.S., and a drain from the Bank of England. Again, the key to containing the crisis was international cooperation. Both the Bank of France and the Reichsbank allowed their reserves to decline and gold to be transferred to England, to finance England's transfer of gold to the United States. Of gold shipped to the U.S. in November and December 1907, 40 per cent was newly mined. Of the remainder, nearly £10 million originated in France, Germany, Belgium and Russia. Less than £0.4 million came from the Bank of England. The willingness of these Continental countries to part with gold was essential to defense of the sterling parity.

The techniques developed in response to the difficulties of 1906 and 1907 were utilized repeatedly in the course of subsequent years. Again in 1909 and 1910 the Bank of France discounted sterling bills to ease seasonal strain on the Bank of England. By the end of the gold standard period, the process of international cooperation was becoming increasingly regularized. Financial experts such as the Italian economist Luigi Luzzatte recommended founding an international monetary fund to institutionalize the practice.

4. Conclusion

What does this account of the gold standard, emphasizing credibility and cooperation, imply for discussions of international monetary reform? It serves to remind that many of

the domestic political preconditions that rendered the commitment to stabilizing exchange rates fully credible are no longer present. Internal balance no longer takes an automatic back seat to external balance in the calculations of policymakers. That they might hesitate to take whatever steps are necessary to restore external balance if those steps threaten to exacerbate a domestic recession naturally casts doubt over the credibility of their commitment to fixed rates. Consequently policymakers' resolve to stabilize exchange rates is likely to be put to an early and repeated test.

Moreover, the balanced-budget rule that was central to the harmonization of policies across countries and to the minimization of stresses on the exchange rate system has been jettisoned. Different countries use countercyclical fiscal devices to very different extents. Even where discretionary fiscal policy has fallen out of favor, political constraints prevent governments from rapidly adapting fiscal policy to external targets. The large U.S. budget deficits of the 1980s are merely the most graphic illustration of the general point.

The smooth operation of fixed rates in normal times therefore hinges more than ever on international economic policy coordination. Defense of those rates in times of crisis similarly requires international cooperation. This has always been true of fixed rate systems. The pivotal role of cooperation under the classical gold standard underscores the point that installation of a rules-based regime far from obviates the need for policy coordination. If anything, it heightens its importance.

FOOTNOTES

1. See Williamson and Miller (1987), Cooper (1989) and McKinnon (1988).
2. See Frankel (1988).
3. A detailed survey of the history of the gold standard is provided in Eichengreen (1985).
4. See Redish (1988).
5. Further details are to be found in Eichengreen (1985) and Giovannini (1989).
6. See Bloomfield (1959).
7. This paragraph summarizes material from the editors' introduction to Eichengreen and Hatton (1988).
8. An accessible discussion of the state of monetary thought in the interwar period is Keynes's evidence before the British Macmillan Committee, summarized in Cairncross and Eichengreen (1983), chapter 3. See also Hawtrey (1913).
9. A 1907 survey conducted by The Economist Magazine provides evidence that British observers were appreciative of these links. See Moggridge (1972), chapter 1.
10. This is the factor stressed by Fishlow (1987).
11. See for example Hirschman (1963).
12. This is the influence emphasized by Fetter (1931).
13. A good introduction to the episode is Fulford (1953).
14. A critical survey of the literature on this period is Sayers (1936), chapter V.

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