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The International Monetary System: in Search of New Principles

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Résumé

Les perturbations récentes des marchés financiers ont mis en évidence l'impuissance du G7 et ont réveillé l'intérêt pour un système monétaire international plus ordonné. Ce regain de préoccupation pour les réformes dans les affaires monétaires coïncide avec la commémoration du cinquantième anniversaire de Bretton Woods. Cette circonstance a encouragé de nouvelles études et de nouveaux débats sur le système monétaire international. Ce document participe au renouveau de la réflexion.

La première partie est théorique. Elle essaie de donner un cadre d'analyse pour justifier des objectifs minimaux. Elle part de l'hypothèse que le système monétaire international est un bien public. Le système ne peut être régulé entièrement par les marchés financiers conformément à la doctrine du *laissez-faire*, bien qu'il soit influencé de manière prépondérante par les marchés. Les gouvernements ont la responsabilité de préserver la stabilité monétaire internationale. Ils ne peuvent l'exercer correctement s'ils n'acceptent pas des principes d'action collective. Ces principes sont combinés dans un régime monétaire international dont la théorie peut énoncer les critères de viabilité. Un résultat important est que la crédibilité d'un régime monétaire international n'est pas une fonction monotone de la rigueur des règles de change. Les régimes à changes fixes avec des marges de fluctuation étroites sont trop rigides, les régimes à changes flexibles purs sont trop instables. Ils ne réalisent pas un bon compromis entre les deux principaux critères de la viabilité que sont la prédictibilité des actions gouvernementales d'un côté, la flexibilité des ajustements pour réduire les divergences réelles entre les nations de l'autre.

La deuxième partie s'appuie sur le cadre théorique pour proposer des voies de réforme. La globalisation financière a changé la nature du système monétaire international. Etroitement contrôlé par les gouvernements à l'époque des règles de Bretton Woods, il est devenu dépendant des impulsions des marchés. Les effets de cette transformation ont été sensibles. La concurrence entre les devises a fait disparaître le rôle d'ancre internationale que jouait le dollar. Elle a aussi accru la symétrie des influences exercées par les autorités monétaires des Etats-Unis, du Japon et de l'Allemagne sur les anticipations des marchés. Il s'ensuit que la cohérence du régime monétaire international ne peut plus provenir de la direction d'une devise-clé. Elle dépend d'une collaboration systémique qui est encore dans les limbes.

La première idée qui a eu de l'influence au milieu des années quatre vingt a été la coordination des politiques économiques au sein de zones cibles de change. Sa mise en pratique a toutefois rencontré des obstacles qui n'ont pas été surmontés jusqu'à maintenant. Ce sont les conflits d'intérêts nationaux, les désaccords sur les déséquilibres macro-économiques et sur l'orientation globale des politiques monétaires, le manque d'instruments pour gérer à la fois les taux de change et les objectifs internes. Une idée peut-être plus prometteuse serait le développement progressif d'une constitution monétaire. Elle se fonde sur une hypothèse qui a un précédent historique avec l'étalon-or. Dans un système soumis à l'influence des marchés, les principes d'action collective

eux-mêmes doivent être enracinés dans des institutions qui sont conçues pour interagir avec les forces du marché. Ces institutions sont les banques centrales indépendantes. Le principe d'indépendance devrait être étendu géographiquement et développé fonctionnellement pour inclure la gestion des taux de change. Des conventions de répartition des compétences devraient être établies entre les banques centrales et les gouvernements dans les pays dont les monnaies jouent un rôle international. Les banques centrales doivent pouvoir décider de la politique monétaire externe, les gouvernements conservant la prérogative de conclure des traités monétaires et de choisir les régimes de change.

Un petit groupe de banques centrales indépendantes, si elles sont guidées par des définitions cohérentes de la stabilité monétaire et si elles sont fermement engagées à défendre les valeurs respectives de leurs monnaies nationales, ou dans certains cas de la monnaie commune d'une union monétaire, peut établir un ensemble d'ancres monétaires compatibles. C'est l'expression du bien public international la plus élaborée qu'il soit possible d'atteindre dans les circonstances présentes et prévisibles. Après une période d'apprentissage collectif, cette organisation pourrait aboutir à une stabilité de fait des taux de change au voisinage de repères validés par les marchés, sans engagement formel explicite de défendre des marges de fluctuation. Sur cette base, les banques centrales du G10 pourraient coopérer pour endiguer les éventuelles spéculations déséquilibrantes et tenir la volatilité résiduelle des taux de change dans des limites raisonnables.

Resterait le problème plus vaste des distorsions de taux de change réels au niveau mondial, concernant notamment des pays dont l'influence économique globale est montante mais qui sont hors des mécanismes monétaires élaborés par les pays à monnaies convertibles. Ce problème doit être traité dans l'enceinte du FMI par une procédure de surveillance multilatérale. Le FMI devrait donc recouvrer sa position de centre institutionnel du système monétaire international qui est conforme à ses statuts. Pour ce faire, la distribution des votes doit être modifiée au sein du Comité Intérimaire au bénéfice des nouvelles puissances émergentes. Celles-ci doivent avoir leur mot à dire dans les affaires monétaires, en rapport avec leurs poids grandissants dans l'économie mondiale.

Abstract

The recent disturbances in financial markets have emphasised the powerlessness of the G7 and have awakened the wish for a more orderly international monetary system. This need coincides with the celebration of the fiftieth anniversary of Bretton Woods. An opportunity has arisen to undertake new studies and hold new workshops on the international monetary system. The present paper participates to the reviving debate.

The first part is theoretical. It tries to provide a background for minimal objectives. It starts from the hypothesis that the international monetary system is a public good. It cannot be run exclusively by financial markets under the doctrine of *laissez-faire*. Governments have a responsibility to preserve international monetary stability. They cannot exercise it properly if they do not accept common principles of collective action. These principles are combined in a monetary regime whose criteria of viability are defined by the theory. It can be shown that the credibility of an international monetary regime is not a monotonous function of the tightness of exchange rate rules. Fixed or flexible exchange rate regimes are too rigid or too unstable to realise a good compromise between both criteria of viability: the predictability of governmental actions for market expectations on one hand, the flexibility of adjustments to reduce real divergences between nations on the other.

The second part is political and builds on the theoretical background. The globalisation of finance has changed the international monetary system from being a predominantly government-controlled system to being a predominantly market-led system. Competition between currencies has degraded the international anchor role of the dollar and increased the symmetry of leverage between the monetary authorities of the United States, Japan and Germany. Therefore the consistency of the international monetary regime can no longer be supplied by the leadership of a key currency. It depends upon a still elusive systemic collaboration.

The co-ordination of economic policies within target zones of exchange rates was the first idea put forward in the mid eighties. Its implementation met some obstacles impossible to overcome: conflicting national interests, disagreements about the stance of economic policy overall, lack of instruments that can be applied to macroeconomic regulation. A more promising idea might be the progressive development of a monetary constitution. It stems from the following hypothesis: in a market-led monetary system the principles of collective action themselves should be rooted in institutions which are shaped by market forces. These institutions are independent central banks. But the principle of independence should be spread geographically and extended functionally to the management of foreign exchange. A convention of power sharing should be established between central banks and governments, the latter retaining the exclusive right to conclude monetary treaties and to choose exchange rate regimes.

A cluster of independent central banks, guided by consistent definitions of monetary stability and dedicated to preserving the intrinsic values of their respective currencies, could achieve a set of compatible nominal anchors. It appears to be the best expression of the international public good that can be achieved in present and foreseeable circumstances. On this basis, central banks of the G10 countries could effectively cooperate to manage the volatility of exchange rates in the short run. Finally the broader problems of real exchange rate misalignments worldwide should be addressed to the multilateral surveillance mechanism implemented by the IMF. But, for the IMF to become the institutional center of the international monetary system in conformity with the Fund's status, the voting powers should be redistributed in the Interim Committee. Emerging economic powers should indeed have weights more in line with their systemic importance in the world economy.

The International Monetary System: in Search of New Principles

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Dealing with the prospects of the international monetary system (IMS) is not without risk for at least three reasons. Firstly, there is no safe theoretical background which is both robust and widely accepted, in the field of international monetary economics. Secondly, the financial globalisation in process is too brand-new to allow an accurate assessment of the problems involved, as far as international macroeconomic regulation is concerned. Thirdly, one can easily be accused of being naive if either one ritually calls upon inter-governmental co-ordination, or outlines grandiose plans for international monetary reform.

The conceptual and practical difficulties met by studies on international monetary matters are rooted in the very nature of money. As the most basic and vital social link of modern society, money plays a crucial, cohesive role in the economic system. But it is also politically determined. Money can be either a source of rivalry or a vehicle of peace in the political order. In the sphere of international monetary relations, rules which were mutually accepted once can be rejected for having become unfair or ineffective.

The IMS provides the highest level of regulation in the world economy, but also the mechanisms which are the most vulnerable to change. There is no indisputable conductor in the concert of nations to rule out the conflicts which stem from strategic interactions. There is no supranational sovereignty to guarantee the trust in a currency extensively used by foreigners. The XXth century witnessed the decay of the gold standard, which was an implicit monetary constitution, and the rise of the nationalisation of money. Since World War I, national currencies have been subjected to political objectives. The international regulation of money has become problematic. The founding fathers of Bretton Woods were far-sighted in their willingness to design a system both symmetrical in its obligations and co-operative, thanks to the creation of a new international institution, the IMF. They could not prevent, however, the system from becoming hegemonic and legitimised not by its intrinsic virtues but by the Cold War. As happens with all single-leader systems at some point, the Bretton Woods system was put under pressure when the US government exploited its dominant position to dodge the tough domestic decisions which were called for at the end of the 60's. From then on international monetary disturbances have been recurrent. They have not degenerated into the global collapse

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of the 30's however. On the contrary private financial links have been able to develop with an amazing speed. Those features have to be understood prior to asking questions about the development of the IMS towards multilateral co-responsibilities, heralding the promise of a new monetary constitution.

In the following pages, I take the risk of providing a reasoning for three main conclusions :

First, *laissez-faire is not viable in macroeconomics*. Collective action is needed. This is not a question of finding an optimal system. What is at stake is developing and preserving a viable monetary regime which is capable of delivering the services of international money as a public good. A theoretical analysis will consider the criteria for a viable IMS and the subsequent organising principles.

Second, *the ad hoc experience of collective action put forth since 1985 is unsatisfactory*. Episodic rescue operations by central banks successfully resolved some foreign exchange crises. But they were too scanty to co-ordinate market expectations. Exchange rates have remained very unstable. Capital mobility has magnified the dissensions between economic policies. Emerging economic powers run exchange rate policies with systemic consequences. Nevertheless they are kept out of macroeconomic debates whose forum, the G7 club, is less and less suited to perform a task of global regulation.

Lastly common principles shall be reasserted. But they will not come from an explicit and formal reform. They will eventually emerge from institutional trends already in motion. The first is the principle of *central bank independence* which reverses the subjection of money to politics. The second is the principle of *mutual surveillance* which should be implemented by the IMF regaining a crucial monetary role and which implies that emerging powers are given a say in international monetary affairs.

I. Theory: the need and features of collective action

There are several good reasons against *laissez-faire* in macroeconomics. They shall not all be ascribed to market failures. There are also some intergovernmental co-ordination failures and failure to recognise that the IMS delivers a public good, which is produced as a less that satisfactory level if participants indulge in free riding.

Unregulated financial markets work badly because they have problems with the management of endogenous uncertainty, in sharp contrast with the diversification of exogenous risks. Uncertainty triggers disturbing collective behaviour which leads to various and serious inefficiencies: multiple equilibria ; speculative dynamics in assets markets (higher volatility and price misalignments); underpricing of risk, over indebtedness and sudden regime changes in credit markets (disruption from high elasticy of credit supply to acute credit rationing).

When governments benefit from large facilities of foreign investment and disregard any rule or agreed principle to limit the scope of their discretionary policies, there will always be times when they will run dissonant, even contradictory policies. Those dissensions are perceived by private traders in free markets (investment banks, hedge funds, securities houses). The latter shape market expectations thanks to their connections with big institutional investors. Therefore conflicting policies nourish new views on the future course of exchange rates which compete with existing conventional opinions. Heterogeneous expectations may set up unpredictable dynamics: high volatility of spot exchange rates whenever attracted by contradictory views on future exchange rates; a shift from a stable pattern of exchange rates to a bubble path or a self-reinforcing drift with a continuous weakening credibility of government announcements to the markets; self-fulfilling speculative attacks leading to foreign exchange crises when a strong mimetic contagion leads to an abrupt change from one pattern of market expectations to another.

Market and intergovernmental failures interact perversely. Unstable markets lead to distorted, real exchange rates with adverse macroeconomic consequences for the countries concerned. Non-co-operative policy reactions to exchange rate misalignments launch competitive devaluations or revaluations, depending on the disturbance most feared. In turn, market perception of conflicting policy reactions worsens foreign exchange instability because the sustainability of the asserted goals of the authorities is doubted.

Such negative externalities in international macroeconomics amount to public bads. They deny the public-good character of the IMS, whose logic is precisely to preclude inefficient equilibria and to thwart distabilizing speculative dynamics. The IMS cannot fulfill its *raison d'être* if governments are not convinced that international monetary stability is worth pursuing as a valuable and autonomous goal. Joining an international monetary regime and working to preserve its existence is an objective in itself for the authorities responsible for the most widely-used currencies. They should acknowledge the advantages of a viable monetary regime and the need for collective action if a regime were ever to achieve dynamic stability in the long run.

I.1. Systemic organisation and collective action

Even if it is an unorthodox and new approach in international monetary economics, a monetary system is best understood as a network. The reason is that the first and foremost function of money is to channel and regulate flows of payments. Economics of networks has been developed to deal with the organisation of flows. It provides a linkage between the microeconomics of basic flows (information, commodities, payments) and the macroeconomics of regulating institutions. This linkage is what traditional equilibrium theory cannot do, as soon as markets are incomplete and handicapped by less than perfect information. In such circumstances, which are what the real world is all about, markets are not self-adjusting and there is no single general equilibrium to provide the micro foundation of meaningful aggregation, using the device of the representative agent. When markets are imperfect, non market institutions are necessary for markets to work. The entanglement between markets and institutions is the gist of economic systems. It cannot be understood as a problem of aggregation, but as a problem of mediation.

Up to now, network theory has been applied to industrial economics, telecommunications, transport, banking and the like. Its main achievement is to point out the endogenous tensions which make the so-called natural monopolies liable to deregulation, while showing why deregulation cannot be complete. Network theory stresses that mediations are requisite for systems to function properly. Extending network theory to monetary matters is relevant. It sheds some light on the basic problem of international monetary economics : since there are increasing returns in using an international currency why isn't it unique? If there are institutional restraints, and more deeply preferred habitats which explain the separation of national payment systems, why hasn't any national currency become an international currency? How can the opposite tendencies of centralisation and decentralisation at work in the IMS ever combine into an international monetary regime which may be fragile, albeit stable for some time?

A network is made up of three parts: its infrastructure, its infostructure, its services to end-users. The quality of an international currency is rooted in its infrastructure. It depends on the liquidity and openness of its financial markets: depth, resilience, high turn-over of wholesale markets, confidence in the financial strength of market makers, standards of prudential regulation. For a given multicriteria, measured quality, the costs decrease with the size of the markets. Therefore, the development of infrastructures is driven by a concentration of the vehicle functions of money, in favour of a single key currency. However, the quality of an international currency depends also on its infostructure, i.e. on the political conditions of regulation and control: market opinions on future economic policies, degree of strictness of exchange rate rules, and attitudes towards capital mobility. Finally the retail services to end-users are customised. They are differentiated according to the functions of invoicing, hedging, asset holding, etc. The very nature of those services calls for decentralisation and competition, because fixed costs are less and the diversity of products is more important for end-users. The infostructure is the sensitive part of the network. It receives the contrary demands of concentration and diversification, and it has to deliver a systemic consistency. Not only is competition between currencies in the infostructure of the IMS enhanced by the political costs of side payments, which increase fast as a large number of sovereign nations are brought under the leadership of a single key currency, but it is backed by market beliefs which impinge decisively upon expectations about government policies. Market beliefs are driven by a liberal paradigm which sets out that currencies have intrinsic values revealed by competition. Because market beliefs do not uphold the idea of an universal currency, the regulation of international money cannot be efficient if it does not match these beliefs.

The most fundamental result of network theory is the necessity of collective action as a way to overcome the divergent dynamics of infrastructure, infostructure and final services. Viable international monetary systems are potentially diverse because they are organisational compromises which shift through time, according to the balance between the aforementioned forces. The Bretton Woods system had a highly centralised infrastructure, the dollar being the single vehicle currency in wholesale markets. Its infostructure was placed under the leadership of US monetary policy, only mitigated by capital controls raised by other countries. The present system is a degenerated network with the dollar still prominent in wholesale markets and with an unstable infostructure: the dollar, yen, and DM being run without clear-cut obligations and responsibilities. This confused configuration of badly regulated competition is illustrated on the second diagram of Figure 1, by overlapping rays featuring the scope for currency substitution which potentially covers all international transactions. A truly polycentric system is sketched on the third diagram. It is based upon the principle of symmetry. The infostructure carefully delineates currency zones wherein international transactions are regulated by key regional currencies. The competition between key currencies is managed within a self-contained set of truly international transactions. The international monetary regime is the combination of agreed principles and formal rules which structure collective action between the authorities responsible for the key regional currencies.

I.2. The features of viable monetary regimes

Applying network theory to the IMS avoids the ambiguities of Mundell's triangle of possibilities, as far as the taxonomy of viable international regimes is concerned. In Mundell's analysis an international monetary regime is the combination of three criteria: the degree of strictness of the exchange rate rule (from perfectly flexible exchange rates to completely fixed rates), the degree of capital mobility (from zero to infinity), the weight of external objectives in the government utility function (from purely domestic objectives to common monetary policy). Because the criteria are not independent, the relevant combinations are featured into an equilateral triangle (Figure 2). The triangle encompasses all the viable regimes, i.e. all the regimes not subjected to the theorem of impossibility. The theorem states that it is impossible to combine strictly fixed exchange rates, perfect capital mobility, monetary policies dedicated to domestic objectives. Yet the restriction is minimal. If Mundell's theorem were true, each country would be free to pick up any point in the triangle. An international regime would be nothing but a collection of points chosen by individual countries. But this method is too loose to be determinate. It leaves too many degrees of freedom, and too many implicit assumptions to absorb them. When they are made explicit, they are disputable to say the least. Consider the choice of a government featured at any point in the triangle. It gives a more or less flexible exchange rate, which is supposed to be an equilibrium exchange rate. For all regimes are supposed to be equilibria. For such an identification to be admissible, it is implicitly assumed that market expectations are consistent with the choices of governments. We have enough evidence to know that this assumption is wrong. Independent choices made by governments are often perceived incompatible by the private sector and induce unstable exchange rates. More important, the hypothesis of independent choices by governments, maximising their own utility functions, skips the gist of an international regime: its public-good character. Regime preserving is a goal in itself, which cannot be identified to welfare maximising of individual countries. Because of strong externalities in international relations, because governments always keep up strategic complementaries, an international regime provides common advantages worth preserving. But it means that principles of collective action, an international infostructure in the language of network theory, have to be built up and kept operational.

Network theory teaches that international regimes are compromises. A good compromise in the infostructure is one which is able to accommodate changes in the infrastructure, without disrupting its own mechanisms of regulation and control. To fulfil these conditions, a good compromise must strike a balance between two criteria. On the one hand, the actions of governments must be predictable to the private sector. On the other hand, the actions of governments must bring about flexible adjustments to correct real divergences between countries. Predictability and flexibility are attributes of a viable international regime. They are both affected by the principles of collective action which structure the international regime.

The principles of collective action are drawn from the logics of action. Two attributes are relevant for the analysis of mutual actions of governments: symmetry and co-responsibility. The degree of symmetry determines the sharing of obligations required to preserve the regime. The degree of co-responsibility determines the extent that foreign agreements impinge upon the decisions of governments. Table 1 shows how ideal and historical regimes are distributed according to the combination of both principles of action.

Each type of regime has its pattern of regulation depending upon the weight it grants symmetry and co-responsibility. Whenever symmetry is present, governments have similar obligations. The way they are performed depends upon the conduct of governments. If they accept to be subjected to an automatic adjustment, a strict exchange rate rule can be enforced. Domestic variables bear the brunt of adjustment. With flexible exchange rates, the exchange rate adjusts and determines *a posteriori* the effective sharing of obligations. When hierarchy is imposed, the obligations of governments are qualitatively different. The key currency country assumes the obligation of providing international liquidity and determining the aggregate money supply if the exchange rate rule is tight. The other countries assume the obligation of adjusting to the exchange rate rule which can be modulated according to the acceptable degree of co-responsibility. The more discretionary the national policies, the more flexible the exchange rates, or the less mobile the capital flows.

Table 1 shows that historical regimes are found more easily in the middle square of the Table. This is not fortuitous. If we remember that a viable regime is a regime that can be dynamically stable, thus that can be preserved through time, the regulations provided by the different types of regimes must be compared under the criteria of viability, i.e. predictability and flexibility. The relationship between the principles of collective action, the exchange rate rules and the criteria of performance of international monetary regimes are exhibited on the three diagrams of Figure 3.

A regime preserved through time is deemed credible. It avoids the opposite threats of too much rigidity and too much instability. It can be achieved with a proper balance of predictability and flexibility.

The first diagram of Figure 3 shows that the predictability of collective actions is an increasing function of the tightness of the exchange rate rule. The narrower the exchange rate margins, the more predictable the future exchange rates if speculative attacks can be ruled out. The likelihood of an attack is lessened either by a well enforced automatic adjustment or by an accepted leadership which shifts the curve upward. In contrast, severe real divergences between countries, which call for broad price adjustments, make tight exchange rate rules vulnerable to balance of payments crises.

The second diagram exhibits a decreasing relation between the effectiveness of real adjustments and the tightness of the exchange rate rule. The reason is the following. Fixed exchange rates make domestic prices bear the full weight of adjustments. But the change in these prices is shackled by well-known inertia. Therefore price adjustments are slower with fixed exchange rates, the dilemma between inflation and unemployment more pervasive. Since reducing real divergences is better achieved by flexible exchange rates, well chosen discretionary policies in a symmetric system are better suited than relying on automatic adjustment to manage flexible exchange rates.

Combining both functions in the third diagram, it can be seen that the strictness of the exchange rate rule affects both criteria of viability in opposite ways. It follows that the credibility of an international regime is not a monotonous function of the rigour of the exchange rate rule. Unless monetary authorities conclude firm commitments to respect automatic adjustments, or unless a strong leadership is based upon very robust fundamentals, the polar regimes of the textbooks are too rigid or too unstable to be viable. *The mixed regimes are the most credible, because they are the most capable of change without disruption*: exchange rates are flexible enough but not too volatile, there is some co-responsibility in the conduct of governments, and a mild asymmetry between the main countries. They are the characters of a polycentric system. Its regulating monetary regime can only be built on compromise. The development of contemporary monetary relations has to be investigated against the theoretical apparatus developed herein and its main conclusion.

II. Policy: a changing IMS in search of a tacit constitution

In conformity with the above conclusion, it is necessary to look for trends which could shape a mixed regime. Two questions shall be answered: Is there a development towards more symmetry? May greater co-responsibility be considered likely?

Two major trends have indeed gathered momentum in international relations: the first is the globalisation of finance; the second is the emergence of new competitive economic powers in Asia, and the promise of future ones in Eastern Europe and Latin America.

The globalisation of finance has benefited from the impetus given by the governments of many countries to capital mobility for the purpose of financing substantial balance of payments deficits and high public debts in the 1970's and 80's. *This powerful trend has changed the IMS from being a predominantly government-controlled system, to being a predominantly market-run system.* Private finance has swiftly and smoothly adjusted to payment imbalances and public financing needs. As long as international credit has become more elastic, governments have been able to worry less about balance of payments constraints and more about domestic problems. Therefore the international regime has changed. The viability of the IMS has come to depend less on meeting current account deficit limits and more on market opinion about the sustainability of accumulated indebtedness. Meanwhile, private sources of international liquidity have superseded official sources. Consequently, adjustments to external constraints have become inter-temporal, but also more uncertain since they depend on market assessments of future economic policies of independent governments which are able to pursue discretionary goals.

The huge rise of foreign loans has been a major cause of currency competition. Asset holders have been diversifying their portfolios, thanks to the freedom offered by financial deregulation. Financing needs of countries able to borrow in their domestic currencies have speeded up the trend of internationalisation, and have made these countries respondent to the whims of foreign creditors. Currency competition has destroyed a basic function of international money, previously performed by the dollar: the nominal anchor. The demise of international nominal standard has hugely increased the volatility of exchange rates (Table 2).

Table 2
Relative volatility of nominal exchange rates

Bilateral exchange rates	Standard deviation of monthly percent change			
	1960-71	1972-80	1981-90	1991-94
D.M/Dollar	0,82	3,43	3,39	4,04
Yen/Dollar	0,80	3,06	3,52	2,55
DM/Yen	1,08	3,21	2,68	3,22

Source : B.I.S

A much higher volatility makes capital mobility imperfect since it is converted by asset holders into time-varying risk premia. Furthermore it means that expectations are loosely held, which is the ground for endemic instability and sudden speculative attacks. Subsequently, the differential speed of change between exchange rates and nominal prices has provoked well-known misalignments of real exchange rates.

The hindsight provided by about twenty years of evidence, leads to a mixed opinion concerning the impact of financial globalisation on the IMS. There have been many malfunctionings : distortions of exchange rates, and other assets prices, over indebtedness, over-reactions, underpricing of risk. The level of systemic risk has increased and several market crises of international scope have burst out. But the higher level of instability in the market run system has been somewhat embodied in its regulation. *An endogenous functional instability preserves a systemic stability, at least among developed countries*. Even if they move too much, flexible exchange rates and financial prices trigger adjustments in the end, not only in the private sector, but in government policies alike. Therefore imbalances and fragilities do not stay put in the same sectors or countries. Disequilibria shift from one area of concern to another in the response to the overreactions of markets. Because international financial liabilities have been secured presumably with the help of international lenders-of-last-resort in some adverse circumstances, the system has been able to change without any major disruption.

Beside financial globalisation, the broadening of international competition in world trade, and the ongoing regional groupings raise additional challenges. These are trends towards a multipolar world economy. They create more symmetry. But they are far from shaping well organised currency areas linked together in a polycentric monetary system. The forces of regional integration work on different levels in different parts of the world. Trade flows, capital flows, growth potential, political influence do not coincide with zones of monetary integration. The EC is a unique case where a process of convergence is being deliberately aimed at to achieve monetary and eventually political unification, on top of economic and financial integration. Even in the EC, where an institutional apparatus has long been developed at a supranational level, the transition towards monetary union is hindered by many obstacles. In no way can the EC set an example for other zones of the world. The Far East is not going to integrate under the aegis of the yen. NAFTA is certainly a device to strengthen US hegemony. But it will not do much for the dollar and if it is attempted to expand to South America, it will be resisted. This is the reason why the world economy is not leading to a well balanced tripolar system, contrary to popular belief. It is rather tilting towards an entanglement of ill connected multipolar areas. There will be more economic weight and more political influence of continental powers like China, India and later on Brazil and Russia. These powers are not at all involved in international monetary management, whereas their exchange rates are getting a systemic importance. Their domestic macroeconomic policies will affect their emerging financial markets, whereas they have no incentive for co-responsibility whatsoever. That is the reason why a lot more instability may be expected in international markets, triggered by spectacular crises in emerging markets, if nothing is done to change the balance of power in the Bretton Woods institutions. The worst error would be to believe that the G7, created to solve the problems of the 70's, could transform into a world directory to solve the problems of the 90's.

Discarding seemingly attractive but false solutions, it remains to be understood how the international monetary regime can cope with basic trends in the world economy.

II.1. From the floating dollar standard to the concertation within the G7

The transformations which affected the IMS in the 70's did not happen at the same speed. The demise of the Bretton Woods system simply cut that last link with gold, in August 1971. A futile attempt to keep an international anchor at the Smithsonian Agreement in December 1971 hung fire. The regime of fixed exchange rates anchored on the dollar burst out in February 1973. From that moment on, the anchor function of international money has all but disappeared. However the change from a government-controlled IMS to a market-led one did not happen at once. Before the creation of the EMS, the Deutsche Mark was more a safe-haven currency, like the Swiss Franc, than a competitor for the dollar. The rising demand of international credit by debtors all over the world to pay for oil imports was mainly in dollars. A limited portfolio substitution occurred in strong currencies which did not raise barriers of capital control. The wholesale market for international liquidity was mostly an interbank Euro-dollar market. It generated an elastic supply of loanable funds. International banks used it to lend to non-official borrowers, largely to sovereign debtors, or to the local banks of debtor countries with government guarantees. The loans were supplied with thin margins. Therefore the Euro-dollar interbank interest rate became the leading interest rate.

The unstable dollar standard

These characteristics justify labelling the international regime, from March 1973 to the debt crisis of August 1982 at least, and even to the summer of 1985, a floating-dollar standard regime, in spite of flexible exchange rates which were supposed to insulate domestic economies. The cause of this singular outcome can be found in the twin failures of foreign exchange markets and government policies. Exchange rates never converged to equilibrium. Two mechanisms prevented the insulation of countries from foreign monetary disturbances. First, the overshooting of nominal exchange rates made nominal and real exchange rates highly correlated. Second, the uncertainty about future exchange rates implied a currency substitution which linked together the demands for money of different countries.

Because of these imperfect adjustments, the floating rate delivered only a partial autonomy for the monetary policies of countries other than the US. In this respect, a feature of the Bretton Woods system persisted: the US money stock remained positively correlated with the money stock of the rest of the OECD. But the logic of the linkage was very different, and displayed the degraded quality of the floating-dollar standard. The correlation between the national money aggregates was concomitant with a covariation between the OECD money aggregate, and the effective nominal exchange rate of the dollar. When the dollar depreciated, not only did US money growth increase, but so did OECD money growth. When the dollar appreciated, overall money growth decreased as well. The reason of this perverse regulation can be found in the aforementioned behaviour of exchange rates.

The doctrine of the time was a *laissez-faire* policy as regards to the exchange rate. Every country was encouraged to run its monetary policy irrespective of what others were doing. Confronted with dissonant monetary objectives, foreign exchange markets delivered very unstable exchange rates. Because the linkages through the real exchange rates and the demands for money, foreign countries could not ignore the excessive fluctuations of the dollar. They were obliged to try to smooth them, and by so doing they induced global fluctuations in money growth and nominal income. In the first stage of free markets and flexible exchange rates, the international regime remained asymmetrical.

The aborted hopes of the Plaza-Louvre agreements

In the fall of 1984 and the winter of 1985, the dollar was driven into a devastating appreciation by a self-fulfilling speculative bubble. The arguments of people who upheld that managed exchange rates were necessary to make an international regime viable were enhanced by plain facts. The misalignment of real exchange rates against the dollar reached such a magnitude than even the governments most devoted to free markets and flexible exchange rates became concerned. The long-awaited debate about the surveillance of exchange rates, which had gone nowhere beforehand, was revived. But instead of being carried on in the IMF, the experiment of concerted managed exchange rates took place in the G7. It concerned mainly a triumvirate made up of the US, Germany and Japan. It raised the hope that a tripolar system was being born, other OECD countries keeping privileged exchange rate links with one of the three leading currencies.

The Plaza Agreement of September 1985 was a successful move by the monetary authorities of five countries to burst the bubble. The subsequent decline of the dollar threatened to become a collapse, inducing the authorities to act again. The Louvre Accord which followed in February 1987 was more ambitious. The governments of the G7 stated that the exchange rates had returned broadly in line with fundamentals and that the dollar required no further depreciation. The statement announced the setting of an implicit target zone whose central rates were kept secret and reviewable with changes in the fundamentals, and whose margins were soft. This was a further step towards more symmetry, because concerted interventions were called for to break destabilizing speculation and to fight foreign exchange crises. To undertake the required interventions, each central bank had to borrow or to hold currencies of the others.

The Louvre Accord was flawed, however. The difficulties encountered in its implementation showed a basic weakness in the target zone approach, at least the way it was conceived in the G7. The co-operation singled out exchange rates as its exclusive target, i.e. the relative values of the currencies. It provided no orientation for the overall stance of monetary policy within the G7. If the authorities came to the conclusion that a further depreciation of the dollar should be resisted, the target zone guideline gave no clue how this should be done. Should the Fed raise US interest rates or the Bundesbank lower German rates ? With independent central banks aiming at preserving the intrinsic quality of their respective currencies, and having different conceptions about what the stability of money means, conflicts between domestic objectives and exchange rate targets would eventually arise. Such a conflict had spectacular consequences in the fall of 1987. In conformity with the Louvre Accord, a weakness of the dollar in the late summer had to be fought. The US authorities wanted interest rates to be lowered in Europe, while the Bundesbank was adamant not to lower rates suggesting that the Fed should raise its own interest rates. Contradictory statements in October were a proximate cause of the stock market crash. This event was vivid example of an unsolved problem of the international monetary regime: co-ordinating exchange rates when no mechanism exists to control a macroeconomic variable for the whole area, like the overall interest rate level, could be counter productive. Pressures on exchange rates spill over on other financial markets.

Since October 1987 there have been no further attempts to enter publicly announced agreements like the type of the Louvre Accord. Co-responsibility has been limited to episodic efforts, like joint interactions by US and Japanese authorities to resist an excessive appreciation of the yen against the US dollar. With such an *ad hoc* and limited co-operation, always shaded by vested interests, no accumulated knowledge can improve the procedures to achieve more ambitious goals. Since the episodic management of exchange rates does not impinge upon domestic monetary policies, the short run fluctuations of exchange rates remain too broad. The G7 interventions cannot help stabilising market expectations. Nevertheless the international regime after the Plaza-Louvre agreements is no longer a floating dollar standard. The misalignments of exchange rates have been mitigated. The trend depreciation of the dollar has been checked . A more pronounced decoupling of interest rates has been achieved leading to desynchronised trade cycles between the US and Europe. This advantage of a greater symmetry favours in principle a higher stability for the world economy.

II.2. Searching for new principles of collective action

The 1980's ended with a malfunctioning international regime, but with one which is robust enough to withstand systemic shocks. Therefore it can be argued that there is no need for a grand reform. The time is not ripe for another formal conference on the Bretton Woods model. The international monetary system is experiencing a continuous change rather than a revolution.

Yet, it would be wrong to conclude that nothing has to be done but sticking to the rare episodes of concerted interventions between central banks. As recent events show, the G7 now has very low credibility with financial markets. The basic trends in the world economy are overloading the regulation capacities of the present monetary arrangements.

In the present decade, the globalisation of finance has spread to long term securities markets. Capital mobility in Europe had dire consequences on the foreign exchange crises in 1992 and 1993, while the EMS had previously been able to stand against severe disturbances with orderly realignments. In the spring of 1994, a contagion in long term capital markets was largely disconnected from fundamentals. The scope of speculative waves has become larger and throws serious doubts on the efficiency of financial markets. To improve allocative efficiency so justifying the hopes of financial liberalisation, overall financial stability, and not only the prevention of foreign exchange crises, should be the objective of multilateral co-operation.

With more extensive capital mobility, disagreements between economic policies have stronger negative consequences. As regards the performance criteria of international regimes, the developments of the last two decades have tilted in favour of flexibility and against predictability . Enhancing predictability without jeopardising flexibility is the challenge faced by the adaptability of the IMS. The difficulty of this question has already been stated theoretically. Twin problems have to be solved: sharing obligations in the adjustment mechanism; preserving the international regime amidst national interests. The problems used to be solved by a strong leadership. The fundamental trends in the world economy discard this solution for the foreseeable future. A stable regime can only come from systemic collaboration taking care of the public good character of the IMS. In principle there is an alternative: co-ordinating economic policies or developing the basis of a new monetary constitution.

Co-ordination is a false good idea

The co-ordination of economic policies has been ritually advocated and largely documented in academic studies. In spite of its intellectual appeal, it has never been seriously implemented between the main countries. To be effective is has to go further than agreeing to stabilise exchange rates within pre-specified margins. Either national governments should contribute in targeting a common international variable (be it an interest rate, a monetary aggregate, a prince index for traded goods or whatever) or they should combine their instruments of monetary policy to maximise a common utility function. But the latter is too demanding. It amounts to a surrender of sovereignty, the political cost of which is much too high when weighed against the elusive advantage of co-operation. The former is more promising : joining forces to regulate a relevant international variable, if coupled with a target zone for exchange rates, would make a more predictable system. But countries would not have enough instruments available. It is possible to affect interest rate differentials to manage exchange rates within agreed ranges, and to decide jointly of the average level of interest rates in order to achieve an aggregate target.

Yet countries will still need a supplementary instrument to counteract specific shocks. But fiscal policy is no longer an instrument of macroeconomic management. In most countries, it is hindered by heavy structural rigidities, including the interest cost of the public debt. That is the reason why the largest countries refuse adamantly to relinquish their monetary policy for the purpose of international co-ordination. As long as this obstacle has not been overcome, international co-ordination will not be possible on a permanent basis.

Learning the rules of a new monetary constitution

Since the IMS is changing with the underlying trends of the world economy, the system should be structured by institutions which are shaped by market forces themselves. This is the foremost requirement of a market-led monetary system. The set of institutions and procedures which has developed in line with market forces can be called a *monetary constitution.* It preserves the public good character of international money.

To understand better what this means, let us indulge in a short historical digression. The Gold Standard was a monetary constitution. It was not created by the will of governments assembled in a major conference. As a matter of fact, the conferences of 1863 and 1865 failed miserably. The Gold Standard took a quarter of a century to expand fully. It gained momentum with the successive moves by individual countries espousing its unwritten rules. A country like the US had *de facto* followed the principles of collective action implied by the Gold Standard for about twenty years before declaring formally its membership in 1900.

The Gold Standard was not a target zone. The single formal rule was convertibility into gold. It was more than the setting of exchange rates; it was the institution of a nominal anchor by declaration of an international price, the price of gold. Therefore the formal part of the monetary constitution resolved the problem which hinders the functioning of target zones. It gave an orientation to the overall stance of monetary policy. But the Gold Standard was a monetary constitution for a more important reason. The system worked as long as gold coins remained a substantial component of the money stock in every country, linked to the rule of convertibility. The conversion of bank notes into gold on demand by the public at large transmitted macroeconomic constraints on central banks which were inescapable. The monetary constitution involved automatic adjustment of domestic variables which were strongly correlated among member countries. There was little room for autonomous monetary policies. The requirement of convertibility was a norm of a higher political order, rather than an objective of economic policy. This hierarchy of values was enforced by the universal belief that the rule of convertibility was an essential part of natural order. This belief was so embedded that it was not shaken in the least when convertibility was suspended. This enabled capital flows to be sensitive obediently to leading interest rates, and be powerfully equilibrating.

What are the lessons to be drawn from this disgression? Certainly not the one that is drawn by some nostalgic worshippers of the Gold Standard. The concept of monetary constitution is what constitutes a valuable lesson, not the formal rule of convertibility which has no bearing in the present world. The concept means an environment of institutions and ideas which insulates, as much as possible, the management of money from political pressures wherever they come from: governments, political parties, economic lobbies or the financial community. In today's world the concept of monetary constitution finds its proper expression in *the principle of central bank independence.*

From this theoretical position, it is possible to outline what the development of a new monetary constitution for the IMS might be. Instead of an international nominal anchor, which was provided by the price of gold, *the best that can be achieved is a set of compatible domestic nominal anchors*. Instead of looking for a grid of relative values of currencies, the public-good character of money is to be found in its intrinsic value as a purchasing power over commodities. Defining and maintaining the quality of money in economies linked by financial globalisation is the task of independent central banks. Since distinguishing between domestic and foreign monetary policies in a financially integrated world has lost meaning, the principle of central bank independence should be extended both geographically and functionally. It should encompass at least all the countries of the G10, and give central banks control over the management of exchange rates, with governments retaining the sole power to decide the exchange rate regime.

The first stage of development of the monetary constitution is already in process, in as far as more countries introduce reforms to institute the principle of central bank independence. This stage should be a learning process whereby independent central banks will hopefully come to a common definition of what the stability of money means. Meanwhile, central banks are going to compete on the quality of their respective currencies, this competition being grounded in the exercise of the power of monetary sovereignty. Thus there will surely be more substitution between currencies of similar quality while the structural advantages of the dollar in wholesale markets become more narrow. A high level of financial activity between competing currencies, which promise a similar quality in the medium run, will modify the exchange rate regime: *more short run volatility but less pervasive misalignments* *can be expected*. This outcome is the result of recurring financial shocks in integrated financial markets and less dissonant monetary policies, if they are run according to the same doctrine and are less exposed to dissonant political influences.

Under the prevailing monetary constitution, a second stage can be implemented to improve the degree of co-responsibility in the IMS. Independent central banks, in charge of the management of exchange rates, are better equipped than governments to manage exchange rates in the short run against destabilizing speculation. There is no question of committing themselves to defend a target zone. The objective could be a *de facto* limitation of the short-run volatility of exchange rates, wherever compatible with the medium-run stability of domestic prices. Central banks of the G10 already have a forum to collaborate in the Committee of Governors, with the technical assistance of the BIS.

A third stage of monetary reform is rather more ambitious but indispensable. Better monetary policies in G10 countries coupled with institutionalised co-responsibility between the central banks of these countries still lack a regulator of money extending its authority worldwide. The emergence of new economic powers gives a systemic importance to exchange rates of currencies outside the G10. Discretionary management of these exchange rates may entail disturbing disorders: competitive devaluations (even encouraged by the IMF if adjustment problems are dealt with on a country-by-country basis), instability in emerging financial markets leading to unsteady flows of capital, disruptions in world growth. These problems could arise because economic integration is uneven. Because they are global, they need a global institutional response. It has to be found in the Bretton Woods institutions themselves. The IMF was conceived to be the institutional center of the international monetary system. The time has come for a political decision to give the IMF the means to implement what is already in the Fund's status: *the multilateral surveillance of exchange rates world-wide*. Such a political decision is hard to take and would be foresighted The large developed countries should accept that the G7 is not the economic directory of the world and that they have to share their responsibilities with other countries in the Interim Committee of the IMF. If an institutional mechanism is created for the surveillance of exchange rates and is to be effective, the voting powers should be redistributed to fit the changing balance of economic power in the world.

Figure 1.

Source : Economie Internationale, n° 59, 3rd quarter 1994, P.86

Figure 2.

Figure 3.

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