

STRATEGIES AND CONDITIONS FOR INTRODUCING A MONETARY CONSTITUTION

by
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1. Introduction

In a free society discretionary measures and interventions of government, bureaucracy and independent public agencies should be as limited as possible to

1. allow each individual as much freedom as is compatible with those of others;
2. to prevent the possible misuse of power by minorities and shifting majorities;
3. to promote justice and efficiency and to allow the formation of stable expectations by a reliable and stable legal system;
4. to allow the innovative and creative activity of many decentralized private agents relying on and motivated by stable property rights, enforcement of contracts and the rule of law.

A constitution limiting the rights and determining the duties of citizens, but also the discretionary powers of government is a precondition for the existence and maintenance of a free society (Hayek 1960; Buchanan 1974; Bernholz and Faber 1986).

All these problems have been widely discussed in the literature. Less attention has been addressed to the problem of how the wanted constitution of a free society can be reached in a situation in which wide discretionary powers of the government exist, or, in which outright oligarchies or dictatorship dominate. For can rules limiting the power and influence of government, bureaucracy and the interest groups influencing them be introduced, if the people benefiting from such a governmental system are opposed to constitutional reform? It is obvious that it is nearly as important to answer this question than the question what an adequate constitution of a free society should look like.

The question thus posed can only be answered if we understand the dynamics of change leading from one politico-economic system to another. What we need are theories explaining these relationships, theories which can only be found if we look carefully at the available empirical evidence. It is for this reason that I concentrate on the problems connected with the introduction of a monetary constitution. For work extending over years has provided some insights into the politico-economic dynamics underlying changes of monetary regimes, which might be helpful to address the questions stated above for a monetary constitution.

2. Characteristics of Discretionary Monetary Regimes

Monetary regimes leaving the decisions concerning the supply of fiat money to governments or to more or less dependent central banks are characterized by two rather negative traits. First if they are combined with flexible exchange rates they exhibit strong mid-term swings of real exchange rates, a fact which will be discussed below (Section 4). Second, they are biased in favor of inflationary developments.

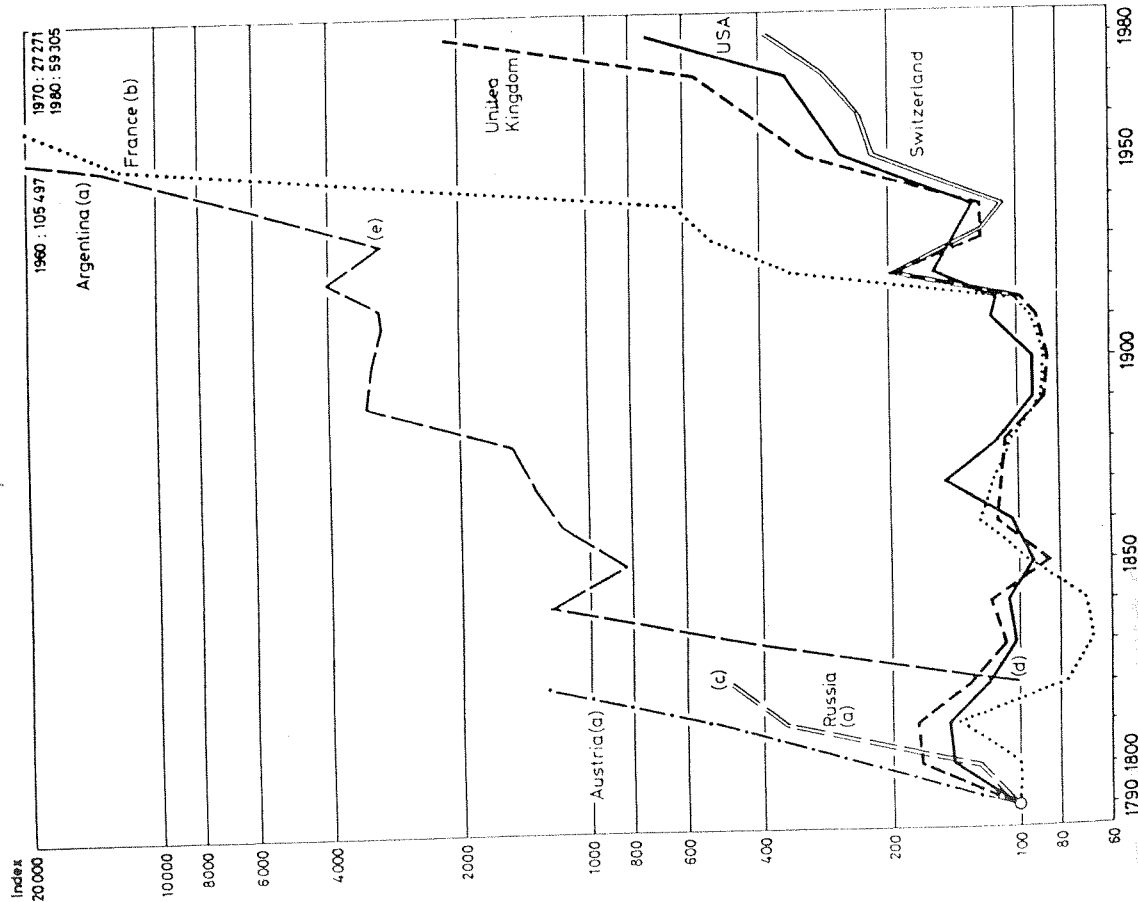
Let us turn first to the second of these characteristics. If we look at the evidence for "relatively" stable currencies like the Swiss franc and the West German mark, we find that their values shrunk from 1950 to 1980 by 61.5 percent and 60.6 percent respectively (in terms of the cost of living index). If this was true for so-called stable currencies, we should not be surprised at the far greater depreciation recorded by other currencies. Indeed, a study of about 30 currencies shows that there has not been a single case of a currency freely manipulated by its government or central bank since 1700 which enjoyed price stability for at least 30 years running. This has been true even for "autonomous" central banks, although their currencies fared better than those manipulated by central banks more subservient to their governments.

The picture would be quite different if governments and central banks were controlled by strict "monetary constitutions," like the gold or silver standards. Such systems allow public authorities hardly any discretion to control the money supply if banknotes and (indirectly) demand deposits have to be exchanged at the will of the holder, and at a fixed parity, into gold or silver.

Figure 1 illustrates this thesis clearly. The wholesale price index shows no trend between 1790 and 1914 for Great Britain, France or the USA. The same was true for Germany, Switzerland and other countries which were also on gold or silver standards. After 1914, or after 1931-36 (compare Table 1), when these countries went off the gold or gold exchange standard in favor of paper money standards freely manipulated by monetary authorities (fiat money), the situation changed dramatically. **Note that no hyperinflations are present in Figure 1.** The impression is reinforced if we look at the development of the value of fiat monies in the 19th century. Russia, Austria and Argentina were off the gold or silver standard for decades during that period (Table 1). The inflationary consequences are obvious.

In looking at the historical evidence, two points should not be forgotten. Gold and silver standards need not be the only inflation-free monetary regimes. There have, for instance, been proposals for other potentially inflation-free systems such as anchoring a monetary growth rule in the constitution (Friedman 1968) or having free competitive

Figure 1
Development of Wholesale Prices in Several Countries, 1790-1980



(a) Exchange rate on Amsterdam for Russia, on Hamburg for Austria, gold price until 1929 and exchange rate on U.S.\$ since then in Argentina. (b) 1796=100. (c) 1814. (d) 1826=100. (e) 1929. Source: Mitchell [1976, pp. 735-747]; U.S. Department of Commerce [1975, Part 1, pp. 199-202]; Bernholz [1982, p. 15]; Olarra Jiménez [1968, pp. 181-184].

private banking with no central bank monopoly (Hayek 1976; Campbell and Dorn 1986; Dorn and Schwartz 1987). All such systems, however, have hardly been tried, and it is not our purpose to discuss their relative merits *vis-à-vis* each other or *vis-à-vis* the gold or silver standards.

Second, not only the inflationary biases of monetary systems but also the variability of real factors such as real growth rates of gross national product and employment, real interest and real exchange rates should be taken into account when judging the merits of different monetary constitutions.

3. The Inflationary Bias of Governments and Central Banks

However, we are not concerned here with these problems and especially not with normative questions. Our intentions are the following: Given the inflationary bias of discretionary monetary systems, we first seek the political and economic causes of this bias. And second, we try to answer the question of what conditions make it possible to introduce an inflation-free monetary constitution in an environment favoring discretionary policies.

Table 1

PERIODS OF DISCRETIONARY MONETARY MANAGEMENT

Countries in Figure 1 were off the Gold or Silver Standards since 1790.

Country	from	to	from	to	Comment
Argentina	1824	1867	1885	1899	
	1876	1881	1914	1927	
Austria	1797	1819	1914	1923	
	1848	1892	1933		
France	1789	1796	1914	1928	Return to gold standard at new parity in 1928
	1786	1839	1914	1936	
	1854	1899			
Switzerland	1914	1925	1936		Return to old parity in 1925
United Kingdom	1797	1821	1914	1925	Return to old parity in 1821 and 1914
			1931		
United States	1861	1873	1933		Return to old parity in 1873

Note: The above dates have to be taken with caution. Periods of legal and de facto convertibility (used here) have sometimes differed. Austria had convertibility only of notes into gold in 1892; full convertibility followed in 1896. The United States kept gold convertibility for monetary authorities until 1971, and so on.

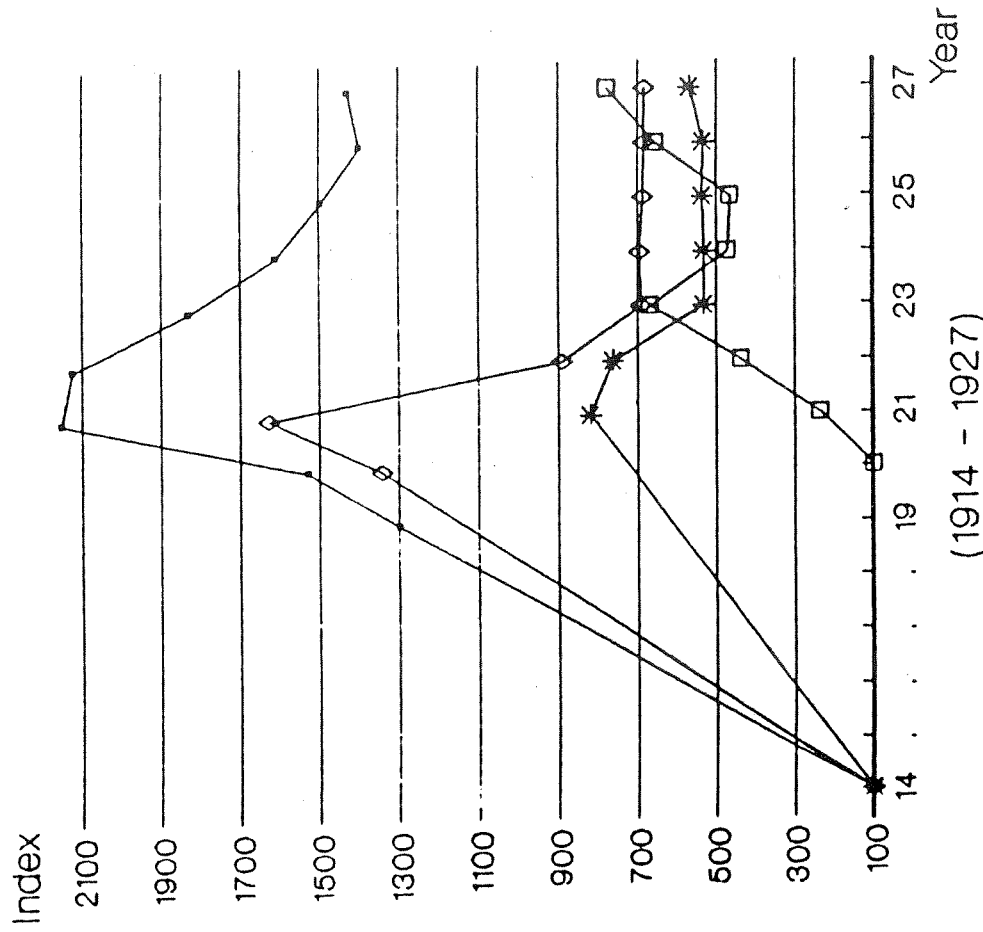
In testing our hypotheses we have to look at empirical historical evidence. In doing so we will find that only gold or silver standards have been introduced as inflation-free monetary constitutions. This does not imply that it would be impossible to introduce other inflation-free monetary constitutions under the same conditions. On the contrary, we think this would be feasible. It is simply not known whether and how well such alternatives would work, given the available historical evidence.

What are the reasons for the inflationary bias of governments and central banks? In trying to give an explanation it has to be remembered that politicians and their parties compete for the support of voters, of interest groups and of party members. Thus they have to provide benefits in the form of public goods, income transfers, subsidies and regulations without increasing the burden of taxes, as perceived by the population, too much.

Now, increasing the supply of money to finance such benefits is precisely such a method of taxation not easily discerned by the people, at least not in the beginning. Even later, the government or central bank will not be held responsible for the ensuing inflation by most citizens for a fairly long time. Moreover, by creating money, real interest rates are kept lower as long as inflation remains moderate and people do not anticipate the full consequences. In the first phase of the inflationary process, growth rates of real GNP and employment even increase. Inflation reduces the real government debt. Revenues from progressive taxes grow imperceptibly. It is obvious that in this phase the party (parties) in power will gain more votes than they stand to lose. Thus, there will be a definite preference for expansionary monetary policies. True, an autonomous central bank is less dependent on political support than the politicians. But central bankers need to be appointed and re-appointed by the political authorities. They are usually obliged, by law, to cooperate with the government. And, last but not least, they, too, are influenced to a certain degree by interests expressed in their environment and enjoy wielding discretionary powers for the "public good."

The political pressures on politicians and central bankers change when the rate of inflation accelerates. Now price and tax increases brought about by inflationary financing will be seen as substantial by more and more voters. A rising number of people will perceive the devaluation of their nominal assets, expectations become inflationary and the positive influences of unanticipated inflation on unemployment vanish. Thus, more voters will vote against than for the incumbent party. The (new) government and central bank proceed to restrict the growth rate of the money supply to get inflation under control. But this policy change certainly does not mean that politicians persist in stabilization

Figure 2
Inflation and Stabilization in Czechoslovakia, 1914-1927



Source: Statistisches Reichsamt (1928 and 1921/22-1934).

- Currency in circulation in Czechoslovakia and the USA, respectively.
- ◇ Exchange rate for U.S.\$.
- * Cost of living index for Czechoslovakia and the USA, respectively.
- Gold and foreign exchange reserves.

efforts until an inflation-free situation has been reached. Quite the contrary. Stabilization leads to a short-term increase in unemployment and real interest rates, as well as to further consequences to be discussed below. Thus, after a period of time, another about-face to more expansionary policies must be expected. The system shows a long-run inflationary bias.

4. Some Additional Features of Inflation Under Flexible Exchange Rates

We have already mentioned that strong medium-term swings of real exchange rates are characteristic for discretionary monetary regimes with flexible exchange rates. The reasons may be manifold. Especially under flexible exchange rates, monetary policies that are more expansive than those of other countries have such consequences which are also politically relevant. These consequences can be appreciated by looking at the example of Czechoslovakia in 1914-1927 (Figure 2). After the money supply in Czechoslovakia began expanding relatively more strongly than in the USA, the exchange rate of the dollar moved up more strongly and more rapidly from 1914 to 1921 than did the Czech cost of living index compared to that of the USA. Thus an undervaluation resulted which stimulated exports and discouraged imports, obviously to the advantage of the export sector and domestic industries competing against imports, and of their employees. Indirectly, the whole economy was stimulated, a fact which explains the political interest in expansionary monetary policies.

The situation changes when the relatively more expansionary policies are ended or (as in the case above) reversed. The exchange rate fell more rapidly than the relative price level (which, in other cases, can even increase further for some time) from 1921 to 1923. The undervaluation diminished and purchasing power parity would have been reestablished had these developments not been interrupted, as will be discussed later on. In other cases, an overvaluation may result for a time as a consequence of strict monetary policies and (or) strong deflationary expectations. It is clear that developments like these offset the advantages enjoyed by the export and import-competing industries and their employees. The advantages can even turn into disadvantages when overvaluation takes place. This, and the resulting unemployment, are additional factors working politically against a continuation of stabilization policies and in favor of another round of expansionary policies before inflation has been totally eliminated.

The case of Czechoslovakia, depicted in Figure 2, is not exceptional. In fact, about twenty historical cases from 1700 to the present have been studied in which the same qualitative pattern can be observed (Bernholz

1982; Bernholz, Gaertner and Heri 1985). Recently the U.S. dollar has followed a similar path against the West German mark and the Swiss franc. After the shift to flexible exchange rates in 1973, and with a relatively more expansionary monetary policy in the USA, the dollar devalued more strongly in terms of the mark or Swiss franc than corresponded to the movement of the relative cost of living indices. A sizable undervaluation developed. When the Federal Reserve Board turned to stabilizing inflation after 1979, the dollar recovered strongly. The undervaluation even gave way to an overvaluation of the American currency. From February 1985, U.S. monetary policy became much more expansionary again, which resulted in another strong decrease of the exchange rate of the dollar during the following three years.

5. How to Introduce a Sound "Monetary Constitution"

Given the inflationary bias of governments and central banks, it seems puzzling that sound monetary constitutions — like the gold and silver standards — could ever have been introduced and adhered to at all. The political interests outlined above will induce the authorities to oppose the installation of any sound monetary constitution, for such a system could not only severely limit the discretionary powers of government and/or central bank, but prevent them from reaping the short-term political benefits of expansionary monetary policies.

Given these facts, it must be asked what political and economic conditions allow, or even favor, the introduction of inflation-free monetary systems? At present we can describe two such situations. One occurs in the last phase of hyperinflation, in which scarcely anybody benefits from inflation anymore but nearly everybody is adversely affected by it. In such a situation, political advantages can be gained by introducing a stable monetary system through currency reform. Here we are interested in the second case, namely the introduction of a sound monetary constitution after moderate inflation has been experienced. In this case the solution to the political puzzle is forthcoming when the consequences of stabilization efforts are recalled.

It has just been argued that after the short-term economic and political advantages of moderate inflation have been exhausted, a disinflationary policy becomes politically feasible. Stabilization policies lead not only to rising real interest rates and unemployment and a slackening of economic activity in the short run, but also to a reduction and elimination of currency undervaluation or even to overvaluation. But this hurts the export and import-competing industries in particular and the workers employed by them. As a result, the political pressure to protect these industries against foreign competition will be stronger than that for reflating the economy.

True, consumers will be hit by protective measures, but the consequences are widely spread and are usually not perceived as the result of political actions. It doesn't pay for consumers to inform themselves, since only a small part of their budgets is at stake and the influence of individual voters on elections is so minute anyway.

Protection against foreign competition can take different forms: higher import duties or quantitative import restrictions, or an intervention against the home currency in foreign exchange markets to depress or stabilize its value. Again, the experience of the USA since 1985 gave good examples for the application of both types of measures and for the way protectionist pressure works in Congress.

A stabilization of the domestic currency can also be achieved by introducing a stable monetary constitution (like a gold standard with convertibility of banknotes into gold at a fixed parity for everybody). The political forces opposing a further revaluation of the domestic currency can be expected to support such a move, especially if the currency is still undervalued. This support will, moreover, be broader than that for protective tariffs or import quotas since the resulting stable exchange rate benefits not only import-competing but also export industries and is not as visible as the other measures favoring these industries at the cost of consumers.

Turning back to Czechoslovakia in the 1920's, this was exactly the policy followed. As can be seen from Figure 2, the currency was stabilized from 1923 *vis-à-vis* the dollar at a still somewhat undervalued level. The political support was used to introduce the gold standard. The same qualitative patterns as those sketched out for Czechoslovakia can be observed in quite a number of countries after World War I (Table 2.1) and in Argentina in the 1890's. In all these cases, the currencies were fixed at new gold parities at undervalued levels. This led to balance of payments surpluses and a strong inflow of gold for at least a number of years. Because of the implied increase of the money supply, prices kept rising for a time, until balance of payments equilibrium was reached. There is further historical evidence that the introduction of the full gold standard in the Netherlands in 1875, and in Austria-Hungary and British India in the 1890's, was possible with the help of the same political forces (Bernholz 1986). It is thus not surprising that some politicians in the USA favored the reintroduction of the gold standard in 1984-85, when the dollar was already overvalued and rising to still higher levels.

Looking at Table 2.1, we observe that all the countries which re-established a gold (exchange) standard after World War I did so, with the only exception of Yugoslavia, at a more or less strongly undervalued parity. Moreover, all these countries experienced even more undervalued exchange rates in years preceding their *de jure* and (or) the *de facto*

stabilizations. This supports our hypothesis that the fixing of exchange rates was a response to diminishing undervaluations. Note that Yugoslavia and Czechoslovakia have been taken as successor states of Serbia and of Austria-Hungary, respectively, in Table 2.

It is also instructive to compare the experience of the countries of Table 2.1 with those which returned to their prewar gold parities after World War I (Table 2.2). I have argued elsewhere (Bernholz 1986) that in these cases the return to prewar parities was helped by being perceived as a return to normal peace-time conditions after the war. Moreover, that the reestablishment of the old parity could only be accomplished because the internal price level compared to that of the USA had not increased too much. For only in this case could the opposing political forces of export and import-competing industries and of those employed by them, be overcome. In fact, CPI/CPI* is, for all countries in Table 2.2, much lower than for those of Table 2.1, with the only exception of Peru. Also, five out of seven of the countries returning to prewar parities, stabilized at about purchasing power parity, quite in contrast to those in Table 2.1. But even for the countries returning to the prewar parity we find that, except in the case of Sweden, all these currencies had been undervalued before.

6. Advanced Inflation and the Budget Deficit

It is well-known that advanced inflations and hyperinflations have only occurred when a substantial budget deficit has been financed by creating money (Jaksch 1985). If the budget deficit and (or) the already outstanding debt of the government is so big that foreigners or the domestic public are no longer prepared to buy enough interest-bearing assets from the government to cover the deficit, then inflationary financing is unavoidable. This shows that a budget always has to be financed by the present generation, *i.e.*, the present generation has to forego the resources claimed by the government. If this cannot be accomplished by ordinary taxes and by voluntary lending, it is done with what has to be called the inflation tax.

Can an inflation tax be maintained indefinitely? This is an interesting theoretical and empirical question. Theoretical articles have been written in the spirit of optional taxation theory on the optimal rate of inflation. I doubt, from a public choice and a purely economic perspective, whether such an optimal rate of inflation could ever exist in reality. But it is true that inflationary processes with varying rates of inflation can be observed since decades, especially in some Latin American countries. Still, from the empirical evidence, it appears that this is only possible if the real budget deficits and the rates of inflation are cut down from time to time (Paldam 1985).

Table 2
 DEGREE OF UNDER(OVER)VALUATION OF SEVERAL CURRENCIES
 IN THE YEAR OF THE FORMAL (RE)ESTABLISHMENT OF THE GOLD (EXCHANGE) STANDARD
 AFTER WORLD WAR I
 (1914 = 100)
 Undervaluation(Overvaluation): $CPI/(CPI \times ER) < 100 (> 100)$

Country	Year of (Re)Establishment ¹	CPI	CPI*	ER	CPII (CPI* × ER)	Minimum CPII (CPI* × ER) ⁶
Ialy	1928 ²	572	170	360	93	42 (1920)
Portugal	1931	1990	151	2319	57	48 (1923)
Romania	1929	4244	167	3270	78	35 (1922)
Bulgaria	1929 ³ (1924) ⁵	3662 (2561)	167 (169)	2411 (2400)	91 (63)	49 (1921)
Greece	1928 (1927)	1868 (1790)	168 (170)	1476 (1462)	75	62 (1923/26)
Finland	1926 (1924)	1183 (1170)	174 (169)	766 (767)	89 (90)	70 (1921)
Peru	1928 ⁴ (1928) ⁴	174	170	112	91	85 (1921)
Chile	1926 ⁵	198	178	161	69	56 (1921)
France	1928 (1927) ⁵	519 (514)	168 (170)	490 (492)	63 (61)	49 (1926)
Czechoslovakia	1925 (1923)	951 (918)	178 (173)	687 (691)	78 (77)	50 (1921)
Yugoslavia	1931 (1926) ⁵	1117 (1804)	107 (152)	1090 (1131)	95 (105)	74 (1923)
Belgium	1927 ⁵	817	169	694	70	62 (1926)
2. Countries returning to prewar parity						
Great Britain	1925	169	174	101	96	83 (1920)
Netherlands	1925 ⁵	154	174	100	89	75 (1920)
Sweden	1924 (1923) ⁵	174	170 (170)	101 (101)	101 (103)	101 (1924)
Switzerland	1925	168	174	100	97	90 (1920/23)
Norway	1925	177	170	100	104	73 (1924)
Denmark	1927	176	173	100	102	76 (1920)
Argentina	1927	132	173	100	76	65 (1923)

Symbols:

CPI Cost of living index of respective country.
 CPI* U.S. cost of living index.
 ER Exchange rate of U.S. dollar in terms of respective currency.

Footnotes:

- 1 De facto return year in brackets.
 - 2 The gold parity of the lira was fixed on December 21, 1927. Thus it seems to be adequate to take the figures for 1928.
 - 3 The gold parity of the Lev was fixed on December 3, 1928. Thus the figures for 1929 have been taken.
 - 4 Only a de facto stabilization took place.
 - 5 Since the gold parity was (re)established at the end of the preceding year, figures for the following year have been taken.
 - 6 Minimal postwar value of $CPI/(CPI \times ER)$ before de jure (or de facto) stabilization.
 - 7 Wholesale price indices.
- Sources:**
 For U.S. cost of living index: U.S. Department of Commerce, Bureau of the Census (1976).
 Statistisches Reichsamti (1928).
 Statistisches Reichsamti (1936 and 1937).
 For dates: Schwarzer and Schneider (1988).

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For one case, at least, we get a clear-cut result. If the budget deficit as a proportion of government debt remains greater than the growth rate of Gross National Product for a sufficiently long time, it cannot be financed by issuing debt and (or) the inflation tax. Given this tautological fact, it is important to note that once inflation accelerates enough, this always increases the real budget deficit. For expenditures have to be paid rather soon, whereas tax revenues come in with more or less extended lags. Thus it can easily happen that the real budget deficit cannot be maintained once it has, at least partly, to be financed with the inflation tax and if the rate of inflation has crossed a certain threshold. The tendency towards higher real budget deficits is strengthened by the fact that the real demand for money decreases with the rate of inflation. This means that the base of the inflation tax shrinks so that the government has to increase the tax rate, namely the rate of inflation, by issuing more money to obtain the same real revenue from the inflation tax.

What happens in such circumstances? For a long time economists have thought that the real stock of the inflating money decreases to lower and lower levels (which is true), that the velocity of circulation rises and that more and more people return in more and more transactions to barter (which is only true to a rather limited extent).

Recently, however, it has become more and more obvious from the empirical evidence, that currency substitution takes place, *i.e.*, that good money drives out bad money in spite of all governmental regulations trying to prevent this. The lower real demand for the inflating money is compensated for by a rising real demand for good money (Bernholz 1988). It follows that under conditions of advanced or hyperinflation, the government has either strongly to cut back inflation or even to erase it with a monetary reform. Otherwise the increasing rate of inflation would not only lower real revenues from ordinary taxes but also from the inflation tax to insignificant amounts. Since the "good money" is nowadays foreign exchange or indexed domestic money, and has often been in former times gold and silver coins, the government would also lose its control of the money supply.

If the government is politically unable to undertake the necessary reforms or if the reforms falter, it can happen, and has happened that the bad national money is driven out totally by the good money (Table 3). Then the government has finally to legalize the good money to receive tax revenues again. The budget problem has to be solved, since no inflation tax is available any longer. These problems are clearly seen by Holtfrerich (1980, p. 310), when he states concerning the German hyperinflation "that the stabilization of the currency was rather necessary in Germany because of a crisis of the state rather than of the economy. The economy had widely changed to a foreign currency standard, with which

Table 3

**ADVANCED INFLATIONS ENDING
IN TOTAL NATURAL SUBSTITUTION
OF BAD THROUGH GOOD MONEY**

Country	Period	Earlier Currency Reform Failed ¹	Kind of Good Money	Source
United States	1776-81	March 1780: new dollar bills 1 : 20	specie and state paper money	Phillips 1972, p. 170 sq. Bezanson 1951, pp. 325 sq.
France	1789-97	February 1796: mandats territoriaux 1 : 30	gold and silver specie	Thiers 1840
Peru	1875-87	September 1880: ² incas 1 : 8	silver coins	Garland 1908, pp. 58 sq.
Mexico	1913-17	June 1916: infalsifiable currency 10 : 1	gold and silver specie	Banyai 1976, pp. 73 sq. Kemmerer 1940, pp. 114-15

¹ By a currency reform, we understand a change of the monetary regime with the intention to produce a new stable money. The mere removal of zeros or introduction of newly denominated paper notes is not considered to be a currency reform.

² From the report given by Garland it is doubtful whether a currency reform was seriously intended.

it could have lived.... The crisis originated since the Reich could and would not tolerate the use of foreign currency for domestic transactions wanted by the economy because of reasons of national self-preservation and especially as long as the inflation was needed as a source of revenues" (my translation).

We conclude that advanced and hyperinflations have their own dynamics which finally enforce reforms. These reforms have to solve the problem of the budget deficit and of money creation at the same time. Whether this crisis of the state and the necessary reforms lead to an inflation-free monetary constitution depends on the ideas available at this juncture in history.

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