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CENTRAL BANK INDEPENDENCE IN THE TRANSITION ECONOMIES

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It is a great honor to have been invited to participate in this seventieth anniversary of the National Bank of Hungary, a central bank which has had a remarkably varied history for so young an institution. The National Bank was born in the aftermath of one of the classic hyperinflations, following the breakup of the Austro-Hungarian Empire. In 1924 the Hungarian inflation was stabilized with the help of a League of Nations loan with policy conditionality, the inter-War equivalent of an IMF program. The program not only succeeded in stabilizing the economy, but was also responsible for the creation of this Bank.2/

At the end of the Second World War, the National Bank participated in what remains, by a comfortable margin, the worst ever hyperinflation: in July 1946 prices rose at the monthly rate of 41.9×10^{15} percent (Cagan, 1956). For a few days last year, the Hungarian record seemed to be in danger as the Serbian inflation rate accelerated, but that hyperinflation has now been stopped. When the final data come in, the Serbian

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1/ International Monetary Fund (on leave from MIT). This is a revised version of a lecture delivered at the Seventieth Anniversary Conference of the National Bank of Hungary, held in Budapest in November 1994. I am grateful to Patrick Downes and Barry Johnston of the IMF for useful discussions and Mohamed El-Erian for helpful comments. The views expressed in this paper are those of the author, and should not be attributed to the International Monetary Fund.

2/ See Yeager (1981) for a brief account.

hyperinflation will probably turn out to have been the second most rapid in history.

My topic is central bank independence from the perspective of transition economies--a topic which is well suited to this occasion in this Bank which was founded as a result of an earlier transition resulting from the breakup of an empire. And on a personal note, I should add that I come to the subject in a state of personal transition: when I was invited to give this lecture, I was a professor of economics and an academic, and now I find myself to be an IMF official. Because the internal transition is not yet complete, I will to some extent sound like an official, and at other times I will sound like an academic--a combination that is not necessarily a bad one.

I. Central Bank functions

I will approach the topic by asking whether and to what extent independence is likely to enhance the performance of a central bank in a transition economy. The list of central banking functions is not entirely fixed. The critical function, the *sine qua non*, is of course monetary policy, management of the supply of money and credit. Typically monetary policy is set the goal of maintaining both the internal and external values of the currency; in some legislation, the central bank is also required to attempt to maintain full employment and promote growth.

Secondly, central banks typically serve as the bankers' bank, including in most economies a lender of last resort function. Third, the central bank is typically the government's bank. Fourth the central bank is generally responsible for the supervision of the banking system, as well as the

supervision and development of the financial system more generally. In this context, the central bank is frequently but not always responsible for the operation and development of the payments system. Finally, the research department in the central bank may be one of the few, if not the only, places in which serious analysis of the state and prospects of the economy is undertaken; this function is likely to be more important the less developed is the economy.

The balance of responsibilities among these functions is very different in transition economies than in the older industrialized economies, where central banking in the modern sense has been established for much longer. In particular, in a transition economy, the tasks of supervising and developing the financial system and developing the payments system are relatively more important. That is not to say that the task of controlling the supplies of money and credit is any less important in a transition economy; it is to say that the other functions are relatively more important.

I will argue that in all these respects, an independent central bank is likely to perform better than a less independent central bank--in transition as well as in other economies. However, because the independence of a central bank can never be absolute, and because economic and legal arrangements are changing very rapidly at the start of the transition process, legal independence provides a guarantee neither of actual independence nor of superior inflation performance: because the fiscal system is under exceptional strain early in the transition process, legal

independence is far less likely to keep inflation low than it is in the older market economies.

Even if the central bank has the legal authority not to finance the government, the political pressures to do so may be overwhelming. And sometimes, even when the central bank does not succumb to government pressure, the treasury will succeed in financing itself in some other, essentially monetary, way. For instance, in 1924-25 the Polish "small-change inflation" took place on the basis of treasury emission of small-denomination notes that it was authorized to issue to replace coins--even though the supply of larger-denomination notes, under the control of the central bank, did not expand. In other cases, including in Russia at the end of 1994, governments have issued promissory notes to finance themselves; in addition, governments under fiscal pressure may finance themselves through arrears. The central bank faces a very difficult, and sometimes an impossible, task if the fiscal system is not working well.

I will also argue that the case for a monetary rule, in particular the rule of fixing the exchange rate, is likely to be much stronger in a transition economy than in other economies.

Despite the fact that central bank independence does not guarantee low inflation--it never does--it remains desirable to legislate for an independent central bank. For the central bank to be independent, it should be given the explicit goal of price stability; and it should to the maximum possible extent be shielded from the political pressures that face all central banks everywhere, particularly the pressures of being required to

finance the government budget and to provide credit to specified sectors of the economy.

II. The modern theory of central bank independence

I will start by reviewing the theoretical reasoning that supports the general case for central bank independence. I will then ask how the theory and the evidence supporting the theory apply to transition economies.

The starting point is to recognize that the modern theory of central bank independence is a theory of the second best. The arguments in this theory relate to the monetary policy functions of the central bank far more than to its role in strengthening the financial system-- precisely those aspects that are relatively more important in transition economies.

In the first best world, all policy makers act at all times for the common good, upon which there is widespread agreement. Accordingly, coordination cannot possibly be worse than uncoordinated policies. In an ideal world, monetary and fiscal policy should be coordinated, whereas the essence of an independent central bank is that monetary policy decisions should be made independently of fiscal decisions. The initial arguments in support of this arrangement were those of experience--particularly inflationary experience; recently the lessons of experience have been backed up by theory.

The analytic argument for central bank independence builds on the inflationary tendencies that are inherent, first, in the conflict between the short- and long-run effects of monetary expansion, and, second, in the fact that governments can finance themselves by printing money. In each case, the government may gain in the short run from creating more

inflation, but society will pay for the inflation in the longer run. The key argument for central bank independence is that the economy and the country need an institution that will take the long run view of the costs of inflation.

Consider first the short-run tradeoff between inflation and output, the Phillips curve. It is almost always possible to get a little more output in the short run by accepting more inflation.1/ The tradeoff exists because expectations--both in the capital markets and in labor contracts--are slow to adjust, and because existing contracts build in previous expectations of inflation. Given the tradeoff, a government, whose horizon may extend only to the next election, is likely to be tempted to exploit it.

In the long run, however, the tradeoff goes the other way. There is mounting evidence that the long-run tradeoff between inflation and economic growth is negative. Rapid inflation reduces economic growth (Fischer, 1993). It does this in part because it reduces the efficiency of the financial system, it renders the price system much less effective, it taxes holders of money, and it redistributes wealth. There has been a great deal of work on the costs of inflation, and there is no doubt these costs are substantial once the inflation rate is in the double digits.

Many of the costs of inflation could in principle be removed or reduced through indexation. Many countries have introduced indexation in an attempt to reduce the costs of inflation: among them are Brazil in the 1960s and 1970s and Israel in the 1970s, where indexation was pervasive; partial

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1/ However, at high rates of inflation, it may be necessary to accept a lot more inflation to get even an ounce of output.

indexation exists in many countries, particularly the indexation of wages. The evidence is that countries that try to live with inflation, by indexation, end up with more inflation and for longer--and thus they too do not escape the costs of inflation. The countries which were proudest of living with inflation, Brazil and Israel, had especially bad inflationary experiences. In both these cases, inflation seemed to be stable for a while; then an inflationary shock would hit, and inflation would rise to a new higher plateau. In the case of Israel, for example, an inflation that stayed at thirty percent for a few years increased to a hundred percent after a devaluation; the next devaluation took the inflation rate to four hundred percent. A similar phenomenon, of inflation rising from plateau to plateau, was observed in Brazil. This experience suggests that policymakers have to deal with inflation rather than try to live with it.

However, even though pervasive indexation is inflationary, some aspects of indexation may be useful. For instance, government provision of long-term indexed bonds would make it possible for people to inflation-proof their retirement savings, and need not be inflationary. Consider for instance the introduction of indexed bonds in the United Kingdom at a time of high inflation. Inflation has fallen subsequently, and there is no sign that the existence of inflation indexed bonds has increased inflationary pressures in Britain. The decision to sell indexed bonds may well have been received by the markets not as a signal of the government's permanent acceptance of inflation, but instead their willingness to forego the benefits of reducing the real value of debt through future inflation.

The conflict between the short- and long-run tradeoffs between inflation and output is one reason to believe that society may end up with excessive inflation. A second reason, which is even more relevant in transition economies than elsewhere, is the fiscal aspect of inflation associated with money printing as a source of government finance. This is perfectly summarized in much-quoted words of Keynes (1924, p.46):

> A Government can live for a long time, even the German Government or the Russian Government, by printing paper money... The method is condemned, but its efficacy, up to a point, must be admitted. A Government can live by this means when it can live by no other. It is the form of taxation which the public finds hardest to evade and even the weakest government can enforce when it can enforce nothing else.

The revenue motive for inflation is especially relevant at present in several economies in transition. At the worst point of the German hyperinflation, the tax system produced 1.5 of GNP in tax revenues. No economy in transition has done quite as badly as this, but at the beginning of 1994 Georgia's tax revenues were only 2.3 percent of GDP. The share of taxes in GDP has fallen sharply in many of the economies in transition. The rest of government spending has to be covered by the printing of money. When an economy is in total fiscal disrepair, no central bank--however formally independent it might be--can create macroeconomic stability. But the more independent the central bank, the more likely the government is to realize that it has to improve its fiscal system.

Now why is it that these two factors--the Phillips curve and the inflation tax--are the basis of the argument for central bank independence? Each implies that it is attractive for a government to try to promise low inflation and to produce higher inflation. The lower is expected inflation,

the lower are nominal wages, and the more tempting it is for government to inflate. At the same time, the lower is expected inflation, the more cash people hold and therefore the greater the real revenue from a given rate of unexpected inflation. The benefits of inflation, and especially unexpected inflation, for the government will mean that inflation tends to be higher than is socially optimal--and recent experience even in the industrialized countries certainly confirms that inflation has been too high. That is why some means has to be found of dealing with the problem of inflation.

The creation within the government of an independent institution, which is given the explicit task of keeping inflation low, is one answer to this problem. There are two ways of dealing with the inflationary bias of policy. The traditional way is to appoint financially conservative central bankers, individuals who are known to think that inflation should be avoided at virtually any cost.1/ And indeed, central bankers are recognizably conservative when it comes to protecting the value of money. They may be fortified in their own preferences by giving them a charter that specifies that their job is protect the value of money or to keep inflation low.

Central bankers are also often shielded from the temptations of the world by placing them in very pleasant institutions. While I have not been able to track down the reference, I have been told that an ancient Roman writing on how to prevent inflation recommended puting the mint on an island, providing handsomely for the needs of those operating the mint, and not allowing them to leave the island. They would be responsible for

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1/ The theory to support this approach was developed by Kenneth Rogoff (1985).

producing enough money to meet the needs of the economy, but not so much as to produce inflation.

The other way to try to ensure that the central bank does not produce excessive inflation is becoming increasingly popular. New Zealand is the leading example in this regard. The approach, based on the principal-agent problem in economics, involves setting up an incentive structure which seeks to ensure that the central bank delivers the performance that is expected of it, typically a low rate of inflation. The governor of the central bank in New Zealand has a contract with the government to produce inflation between zero and two percent, and if he fails to produce that inflation, the government is entitled to fire him. The contract includes clauses that allow the inflation rate to change if there are adverse changes in the terms of trade or if indirect taxes are increased. It was widely believed that the governor was also given a fixed nominal salary, to encourage him further not to inflate; however this proposal was rejected because it would then have been in the governor's interest to disinflate, a process which would be likely to create a recession, and the political spectacle of the governor benefitting from large-scale unemployment was not thought to be attractive.

The New Zealand and Canadian approach, where there is an explicit contract between the central bank and the government, is different from that in Germany. There the Bundesbank is set the goal of protecting the value of the currency, but is not directly responsible to the government or the public for carrying it out--it is not directly accountable for its actions, except before the bars of public opinion and history. Because the right people have been appointed, because a tradition has been built up, and

because there is little doubt of what the public wants, the German system works well. So far, so has the New Zealand system.

What are the relative merits of the two approaches? The contract approach, as in New Zealand, has one major advantage, which is that it deals better with the issue of accountability than the conservative central banker approach. There is a problem in providing independence for the central bank, which is partly captured in the standard question, "Who guards the guardians?" Public officials need to be responsible to some person or body. Who is it, and who should it be?

Now this is a tough a problem but it is not an impossible one. Many countries have independent judiciaries as well as independent central banks, and there are procedures for dealing with irresponsible judges. Nonetheless, it is worth recognizing that central bank independence is ultimately not a very democratic way of dealing with the problem of monetary policy--which has profound political consequences, and that if central bank indpendence did not deliver a good outcome, we would not be in favor of it. As we shall see shortly, the evidence favors central bank independence.

The New Zealand central bank statute faces the question of accountability directly, and says the central bank is accountable to the elected government, with which it has to reach an agreement on inflation targets, and then carry out the contract. In the event the government disagrees with the central bank, it can overrule it, but only for a year at a time. Similarly in Canada, the government can overrule the central bank, but it never has, because it is politically costly to do so. However the

right to overrule remains an important determinant of the balance of power between the government and the central bank.

In thinking about the independence of the central bank, it is useful to draw a distinction between two concepts, goal independence and instrument independence. A central bank has goal independence when it has the right to define the goals of monetary policy. It has instrument independence when it has the right to deploy the tools at its command in whatever way it believes best in pursuit of its goals. Central banks should not have goal independence. Their tasks should be precisely defined. Central bank charters of the 1930s typically had such a plethora of well-intentioned goals that they provided no clear guide to policy. The goals should be very specific, and they should be to preserve the value of the currency, or to maintain low inflation.

Central banks do need instrument independence. Once the goals of policy are specified, it should be left to the central bank to do its best to attain them, given the instruments at its command. It should not be the task of the outside economist, or the rest of the government, to also prescribe to the central bank how to run monetary policy, for instance by following a monetary rule. The central bank is a technical institution, which has been given specific powers, and it should be held responsible for using them in the best possible way--that is, it should have instrument independence.

Now how can anyone make sure that central banks actually are independent? In the first instance, the law has to give the central bank the powers it needs to conduct monetary policy, which means it needs the

power to set interest rates and to conduct credit policy; and it especially needs to be free not to finance the government or particular sectors of the economy. Whether legal independence leads to actual independence depends on the country's legal traditions, on the pressure of public opinion, on respect for the law, and on a certain amount of political forbearance--for, as has already been noted, no central bank is strong enough to withstand the adverse effects of a government determined to run an irresponsible fiscal policy.

In addition, it takes time for a central bank to establish its independence, through consistent anti-inflationary behavior over time, and through demonstrated determination under the pressures that it will inevitably face.

III. Some evidence

Figure 1 presents the single most persuasive argument for central bank independence: for a group of eighteen industrialized countries, there is a strong negative relationship between central bank independence and the average inflation rate between 1962 and 1992. The measure of independence is based on the legal status of the central bank. The more goals that are specified for the central bank, the less independent it is; the more it has to finance the government, the less independent it is; and so forth. The Bundesbank, whose goal is defined as being to maintain the value of the currency, is the most independent central bank in this sample. The observation for New Zealand in Figure 1 relates to the pre-reform central bank.

The result in Figure 1 is the key empirical finding that validates the theoretical arguments in favor of central bank independence. Another piece of evidence, discussed in Fischer (1994), is that central bank independence does not reduce the growth rate, implying that lower inflation does not come about at the expense of growth.

Figure 2 shows the relationship between inflation and output variability. The theory that suggests that the appointment of conservative central bankers should reduce the average inflation rate also implies that lower inflation is achieved at the expense of more variable output. Indeed, this theory also implies that we should find a negative relationship between the variability of output and the variability of inflation. There is no such tradeoff in Figure 2. Instead countries with more independent central banks have lower inflation, no less growth, more stable inflation, and more stable output growth. Thus the evidence is that, in the industrialized countries, central bank independence is on average associated with lower inflation but has no visible adverse consequences.

Of course, we are referring here to a long run relationship. The evidence in Figures 1 and 2 does not mean that there is no short-run Phillips curve, it does not mean that an independent central bank can cut the inflation rate at no cost in terms of output.

Before turning to the economies in transition, I want to refer to one other piece of evidence that bears on the issue of central bank independence. If we extended Figure 1, showing the relationship between inflation and central bank independence, to a group of seventy two developing countries, for whom legal measures of central bank independence

have been created, we would find a positive (though not a statistically significant) relationship--that is, the greater is legal independence, the higher the average inflation rate.1/

Does this mean that central bank independence is counter-productive in developing countries? No. What is does say is something about the extent to which legislation may be ineffective in this group of countries; it tells us that it takes a lot of other things than the law to make central bank independence effective. For the governors present, I should say that there is something which is clearly negatively associated with inflation in developing countries: that is the longevity of the governor. The longer the term of the governor, the lower the inflation rate--and you can see that the causation could go in both directions.

IV. Central bank independence in transition economies

With this review of the theory and evidence on central bank independence behind us, we turn to the transition economies. Two special factors stand out. First, given the difficulties most transition economy governments have in financing the budget, the potential gains from coordinating monetary and fiscal policy are larger. In particular, there will be major fiscal consequences of restructuring the banking system, major difficulties in financing firms, and general budget financing pressures.

Second, given the enormous difficulty of imposing hard budget constraints and the simplicity of telling the central bank to provide credit, it is also more urgent to try to reduce direct policy pressures for credit creation. The political pressures on the central bank are likely to

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1/ This evidence is presented in Cukierman (1992).

be more intense in transition economies, and hence there is a stronger need to protect the central bank.

The pressures for credit creation and the need for hard budget constraints make central bank independence, protection from political pressures, more urgent; but the weak and complicated fiscal situation implies that some form of collaboration is needed. These arguments point in opposite directions.

There is a third argument. There is a great need to build up expertise within the government--expertise in the running of the economy, in research on the economy, and expertise particularly in developing the financial system, which is typically one of the most underdeveloped parts of most transition economies. The central bank will typically have to play a critical role in that aspect of development. And this means that it would be desirable to create an island of expertise, political stability, and--it must be confessed--higher pay scales, in a separate organization, rather than within a government which is bound to be going through a difficult process of reorganization.

The balance of these three arguments points, I believe, towards independence for the central bank, for it is essential to find some means of shielding the central bank from the pressures of the government. There is a danger that if the central bank turns out not to be able to withstand government pressures, the law itself is brought into disrepute. That danger exists, but the the danger that the central bank is left completely vulnerable without the law is greater. Thus the risk has to be taken that central bank independence will not be respected.

The problem of accountability is very severe in a transition economy. The question is to whom should the central bank be accountable. If it is accountable to the government, then it will find it difficult to deal with fiscal pressures. If it is accountable to the parliament, then there is a great danger of parliamentary populism--as has been seen in some transition economies. For the period of transition I would reluctantly advocate a Bundesbank-type of accountability and independence, in which the central bank is simply given the powers to control credit and interest rates, and told to produce low inflation, without being made formally accountable to any body except to history, the citizens, and the conscience of the central bank's managers.

This is not a particularly attractive solution, but it is probably the best way to deal with monetary policy early in the transition period. The fraternity of central banks can play a very constructive role in this regard: central bankers like to get together, like to talk about how well they have done in reducing inflation, and that may be the public opinion to which central banks become accountable. That certainly helps stiffen the backs of emerging central bankers.

V. Concluding comments

Let me conclude with two more observations. One is on the need for a nominal anchor in the typically rapidly changing economic environment of a transition economy. The monetary and financial systems are developing, and the real economy is being transformed. I do not see how in these conditions it can be optimal to work with the money supply or nominal credit as a nominal anchor for the economy. Very little is known about the behavior of

money or credit demand, which strengthens the case for an exchange rate anchor.

The exchange rate is the natural nominal anchor, both as a source of discipline and as a guidepost for monetary policy in countries which have some chance of being able to sustain a fixed rate. But the exchange rate cannot be held fixed if the budget deficit is ten or twenty percent of GDP--better forget about a stable exchange rate in that case. However it may well be possible to implement a fixed exchange rate when the budget deficit is still large but not impossibly so. In the internal policy dynamic, the fixed exchange rate can help bring fiscal discipline.

It is very important to recognize that when the exchange rate is used as a nominal anchor, it does not have to be fixed forever. The Polish approach which was to fix a nominal exchange rate for a year to bring relative stability to inflation, is the right way to begin a stabilization. Then once inflation has come down to the low single digits per month, a crawling peg can be instituted along the lines laid out by Jacob Frenkel in his lecture, with the eventual goal of reducing inflation to industrialized country levels. But at no stage in this process should the exchange rate be allowed to become significantly overvalued.

The second concluding observation relates to the issue of which agency, the fiscal or the monetary authority, should manage the government's debt. If, as I believe, the expertise is more likely to be in the central bank to begin with, then debt management should in the beginning be done in the central bank--and it should as rapidly as possible be moved to the treasury. Debt management creates a conflict of interest for the central bank, which

will be tempted to manage interest rates with an eye on the implications for debt management.

The creation of a competent and credible central bank is one of the essential elements in the process of economic transition. Neither competence nor credibility can be legislated. Rather credibility has to be earned, by demonstrating independence and competence over time. And although legislating independence does not ensure actual independence, legislation is necessary if the central bank is to have a change of becoming genuinely independent. Then it is up to the central bankers to fight to to establish their independence in practice.

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Chart 1: Inflation and CBI

GMT Index

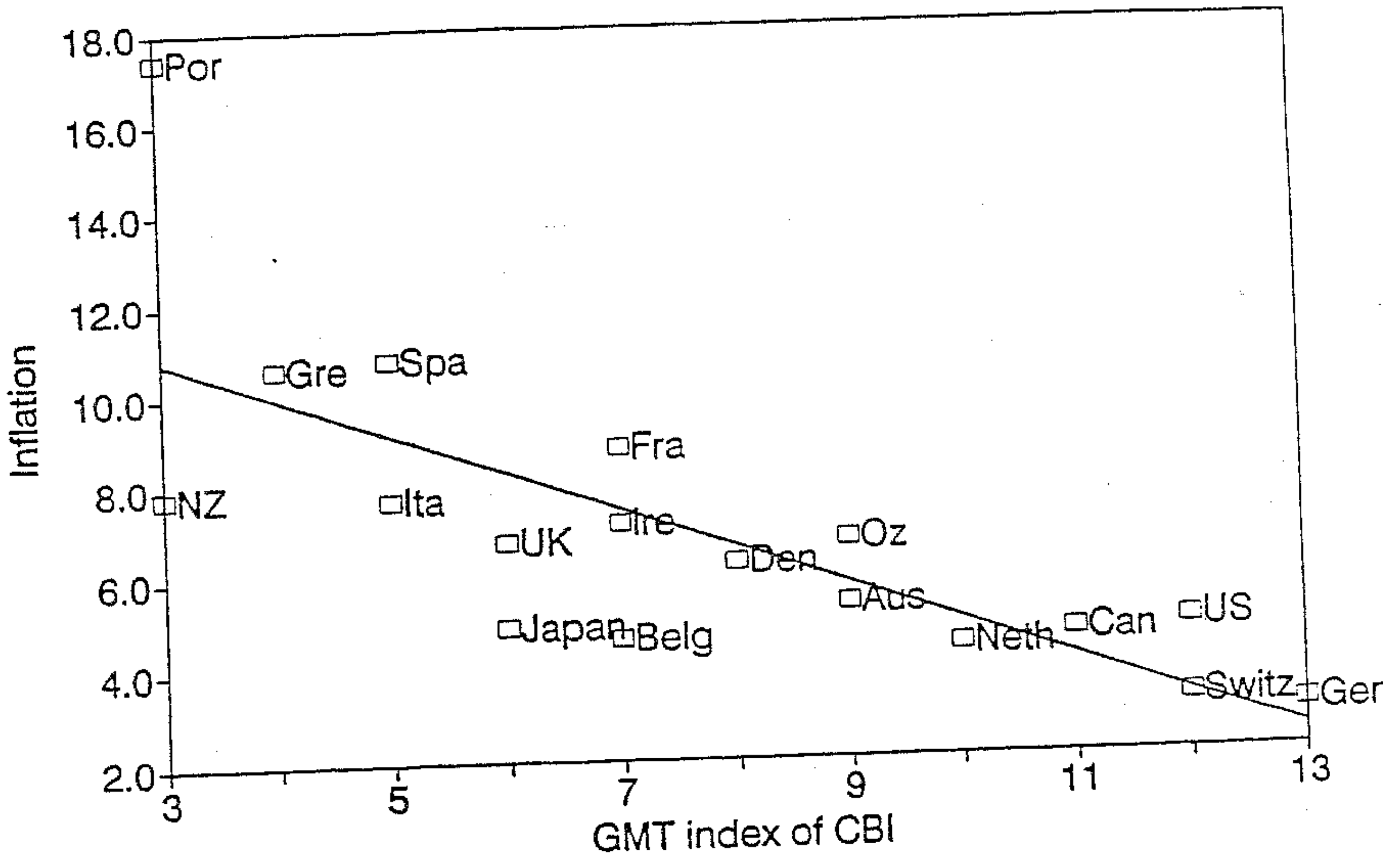

Chart 2: Inflation & Output Variability
1960-1992