

# Central Bank Independence: The Key to Price Stability?

by Charles T. Carlstrom and Timothy S. Fuerst

Industrialized nations have achieved a remarkable decline in inflation: Their average annual rate tumbled from 5.6% in the 1955–88 period to 2.7% in 1988–2000 (see figure 1). One of the most extraordinary success stories is New Zealand, whose average annual inflation plummeted from 7.6% in the earlier period to 2.7% in the later one. Many commentators have attributed this improvement to inflation targeting, which New Zealand instituted in 1989, but it would be premature to credit inflation targeting alone.

The turning point was the 1989 passage of the Reserve Bank of New Zealand Act, which incorporated two fundamental reforms: First, it gave the Reserve Bank greater independence from the central government. Second, it established an explicit inflation target, becoming the first of many countries to do so. Once considered the least independent of central banks, New Zealand's now ranks among the more independent ones.

This *Economic Commentary* suggests that greater independence has been the key factor in New Zealand's inflation success. Furthermore, it was not the only nation to grant its central bank more independence. Others followed suit, and increased independence is, perhaps, responsible for a decline of nearly two percentage points in the average inflation rate for the industrialized nations as a whole.

## ■ Advantages of central bank independence

The hallmark of good central banking is maintaining low levels of inflation over extended periods. But what institutional structure is most likely to achieve and

preserve low inflation? Central banks are considered more independent when they can resist the pressure to make short-term policy decisions that are at odds with their long-term objectives. Central banks gain independence chiefly through institutional reforms such as long-term appointments for central bank governors, for example; explicit inflation targets; and a combination of institutional reforms and targeting. The element common to both inflation targeting and central bank independence is constraint of the fiscal authority's behavior.

At first glance, it is hard to see any benefit in imposing constraint on oneself. But most of us need some sort of commitment in the face of temptation, whether it in the form of Ulysses having himself lashed to the mast to resist the lure of the sirens, or moving the alarm clock to the far side of the room to withstand the yearning for extra sleep. Such constraints inhibit people from acting in their short-term interest, recognizing that actions that seem optimal in the short term may be undesirable in the long term.

The same is true of the fiscal authority, which may be tempted to inflate in the short run to deliver, say, a more favorable exchange rate, a higher output rate, or a lower level of inflation-adjusted debt. These short-run temptations may contravene the goal of long-run price stability, so it may be in society's best interest to grant monetary policy power to an independent, far-sighted central bank.

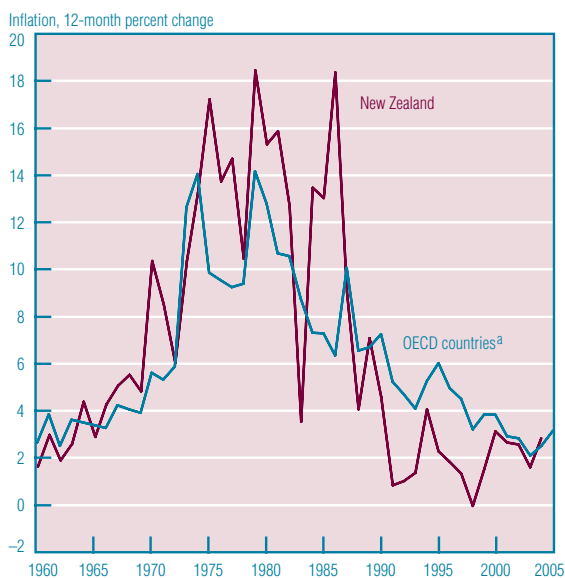
Because we are interested in the evolution of independence over time, this *Commentary* uses two different studies of central banks' independence in industrialized nations, one for 1955–1988 and

**Low inflation over long periods is the sign of an effective central bank. The authors suggest that a large fraction of the worldwide decline in inflation since the early 1980s results from an international movement toward more independent central banks.**

one for 1988–2000. Economic growth has increased the number of industrialized nations, so the later sample is larger than the earlier one. To measure independence, these two studies consider several common factors, including the extent of instrument and/or target independence, the central bank's practices for financing government debt, the length of governors' terms, and the relative importance of inflation stabilization and output stabilization.

Governments use various institutional means to implement independence. For example, in the United States, five of the 12 regional reserve bank presidents have a policy vote at any given time. These presidents are appointed by the boards of directors of their respective district banks. In addition, the seven Federal Reserve governors are appointed by the president of the United States (and confirmed by the Senate) to long, staggered tenures, a practice that nearly guarantees a bipartisan commitment. Neither the U.S. president nor Congress can remove a governor or district bank president without cause.

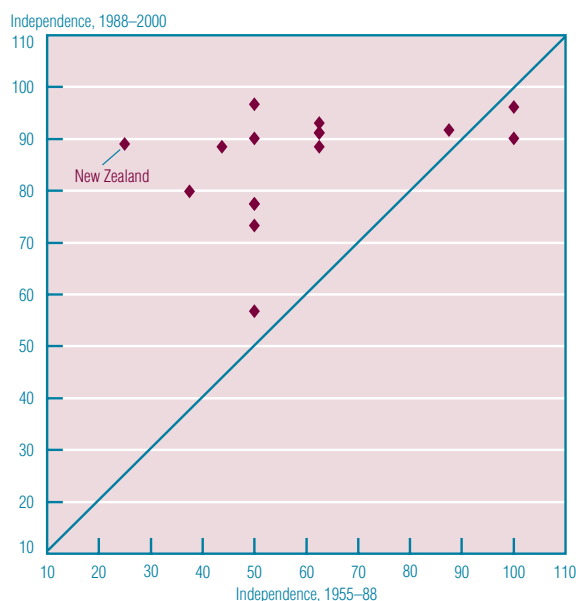
**FIGURE 1 INFLATION**



a. All OECD countries except Turkey.

SOURCES: International Labour Organization; Organisation for Economic Co-operation and Development; Bloomberg Financial Information Services; Alesina and Summers, 1993; and Fry et al., 2000.

**FIGURE 2 INDEPENDENCE, EARLY PERIOD VERSUS LATE PERIOD**



■ **The New Zealand example**

Before 1989, the Reserve Bank of New Zealand was essentially an arm of the government and enjoyed little independence. The Bank was an advisor to New Zealand’s government, so its monetary policy was subject to the discretion of the minister of finance.

Figure 2 illustrates this. Historically, New Zealand ranked lowest among industrialized countries in measures of central bank independence, and its inflation rate was among the highest. Throughout the 1970s, New Zealand posted double-digit inflation levels, sometimes exceeding 18%. The response was the 1989 passage of the Reserve Bank of New Zealand Act, a monumental piece of legislation. As the act defines it, the central bank’s primary function is to “formulate and implement monetary policy directed to the economic objective of achieving and maintaining stability in the general level of prices.” The act codifies inflation targeting and gives the bank a high degree of autonomy as to how it meets its objectives. It also limits severely the circumstances under which the bank’s governor can be dismissed.

■ **Quantifying inflation success**

Figure 2 shows that New Zealand’s independence score rocketed from 25 in 1955–88 to 89 in 1998–2000, with passage of the act as a watershed. In the earlier period, New Zealand was the least independent central bank; in the later period, it ranked among the most independent. And other nations have granted their central banks more independence as well; consequently, the developed countries as a whole have undergone a substantial increase in central bank independence over time. In figure 2, all of them lie close to or above the 45 degree line, implying that independence is (almost) always greater in the more recent period.

We have noted that New Zealand’s inflation rate fell from 7.6% (above the industrialized countries’ average) in the earlier period to 2.7% (below average) in the later one. How much of this success can be explained by the increased independence of their central bank?

Figure 3 demonstrates a strong relationship between independence and inflation for a group of countries in the earlier period. In the later period, the relationship for the same nations is less

clear. Because countries that had little independence in the early sample greatly increased it in the later one, the variation of independence among countries decreased, which makes drawing conclusions more difficult. However, if we broaden the sample to include Austria, Greece, Hong Kong, Iceland, Ireland, Korea, Portugal, Singapore, Taiwan, and Finland, figure 3 reveals a strong relationship between independence and average inflation. Moreover, the impact of independence on inflation is similar across time, a result that is consistent with other studies.

From the linear pattern in figure 3, we can deduce that the predicted decline in New Zealand’s inflation comes solely from its dramatically increased independence, which is responsible for a decline of 4.2 percentage points in its average inflation rate. That is, holding all else equal, if New Zealand in the earlier time period had an independence score as high as today’s, then the annual inflation rate would have been 3.4% instead of the 7.6% that actually occurred.

Referring again to figure 3, we conclude that holding everything else equal, the increase in central banks’ independence would have lowered the average inflation rate worldwide from 5.6% to 3.8%.

**FIGURE 3 AVERAGE INFLATION VERSUS INDEPENDENCE**



a. For New Zealand, Spain, Italy, Belgium, France, Norway, Australia, Sweden, U.K., Denmark, Japan, Netherlands, Canada, U.S., Germany, and Switzerland.

b. For Austria, Greece, Hong Kong, Iceland, Ireland, Korea, Portugal, Singapore, Taiwan, and Finland.

SOURCES: International Labour Organization; Organisation for Economic Co-operation and Development; Bloomberg Financial Information Services; Alesina and Summers, 1993; and Fry et al., 2000.

In fact, worldwide inflation averaged 5.6% in the 1955–88 period and 2.7% in 1988–2000. (We average inflation only until 2000, when the ECB was established, but our results are not significantly affected if we treated the ECB countries as one country from 1988 to 2000.)

Of course, greater independence cannot explain all of the improvement in inflation over time. For example, although the United States' independence score changed very little (from 88 in the earlier sample to 92 in the more recent one), its inflation rate fell from 4.1% to 3.3%. This decline of 80 basis points is evidently not caused by changes in independence but by other forces that have lowered the worldwide inflation rate. Because the later sample includes more countries, comparing the two linear relationships in figure 3 is problematic. But the gap between the relationships may reflect an aggregate drop in inflation of about 65 basis points for reasons other than independence.

Similarly, changes in independence were not responsible for the large inflation run-up that occurred during the 1970s in the United States and throughout the world. Central bank independence was roughly constant across countries until the late 1980s. From then until the early 1990s, most countries' central banks became significantly more independent, partly because of poor inflation performance in the 1970s and 1980s.

### ■ What about inflation targeting?

This *Commentary* does not assess the importance of inflation targeting. But it is worth noting that the average inflation rate since 1990 (when many central banks adopted explicit targets) is nearly the same for countries with targets (2.5%) and without them (2.9%). This difference is statistically insignificant, that is, entirely consistent with pure chance. Furthermore, the average independence level is nearly the same for both groups of countries.

Nonetheless, we should not conclude that inflation targeting is unimportant. For example, could the Reserve Bank of New Zealand have achieved as much autonomy had it not adopted an explicit inflation target? The same question applies to the United Kingdom, which adopted an explicit inflation target in 1992 and whose independence score afterward rose from 50 to 77. The country's average inflation rate fell by 2.7 percentage points, whereas figure 3 would have suggested a decline of 1.8 percentage points.

Furthermore, as often happens, the absence of correlation does not necessarily mean a lack of causation. For example, suppose that nations are more likely to adopt inflation targeting when they are experiencing persistently high inflation rates. In that case, the data will include countries that have adopted targeting but still have high inflation rates. If targeting is effective, these rates will fall but they may take more time to do so. Similarly, countries that have adopted targeting may be unique in that it was their only possible means of controlling inflation.

### ■ Conclusion

The evidence given here, which links central bank independence and long-run inflation, has clear normative implications. An independent central bank is a government's most effective way to ensure delivery of a low inflation rate. Furthermore, nearly 2 percentage points of developed countries' average decline in inflation over time is the direct results of their central banks' increased independence.

It is important to emphasize that the results presented here are for industrialized nations. There is some evidence that the link between central bank independence and long-run inflation is much weaker for developing nations, but that would not necessarily mean that independence is unimportant for them. It is possible that other forces that affect their inflation rates may obscure the beneficial effect of independence on inflation.

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