Seðlabankastjórar í nokkrum löndum með verðbólgumarkmið (upplýsingar m.v. 6. febrúar 2009)

Land	*Seðlabankastjóri*	*Menntun*	*Meðal fyrri starfa*
Ástralía	Glenn Stevens	Master í hagfræði	Háskólakennari og störf innan bankans
Brasilía	Henrique de Campos Meirelles	Hagfræði og MBA	Störf innan fjármálakerfisins í Brasilíu og USA, þingstörf auk fjölda annarra starfa
Bretland	Mervyn King	Master í hagfræði	Prófessor í hagfræði og störf innan bankans
Chile	José De Gregorio Rebeco	Doktor í hagfræði	Prófessor i hagfræði og störf innan bankans
Ísrael	Stanley Fisher	Doktor í hagfræði	Prófessor í hagfræði og IMF
Kanada	Mark Carney	Doktor í hagfræði	Störf í fjármálakerfinu og innan bankans
Kólumbía	José Escobar	Doktor í hagfræði	Störf í atvinnulífi og innan bankans
Kórea	Park Seung	Doktor í hagfræði	Prófessor í hagfræði, störf innan bankans og ráðherra
Mexíkó	Guillermo Ortiz	Doktor í hagfræði	IMF og ráðherra
Noregur	Svein Gjedrem	Master í hagfræði	Fjármálaráðuneyti og störf innan bankans
Pólland	Slawomir Skrzypek	Master í hagfræði	Störfí atvinnulífi og fjármálakerfi
Nýja Sjáland	Alan Bollard	Doktor í hagfræði	Ráðuneytisstjóri, Þjóðhagsstofustjóri ofl. störf
Sviss	Jean-Pierre Roth	Doktor í hagfræði	Prófessor í hagfræði og störf innan bankans
	Philip Hildebrand	Doktor í hagfræði	Prófessor í hagfræði og störf innan fjármálakerfis
	Thomas Jordan	Doktor í hagfræði	Prófessor í hagfræði og störf innan bankans
Svíþjóð	Stefan Ingves	Doktor í hagfræði	Hagfræðiprófessor, störf í fjármálakerfinu og IMF
Tékkland	Zdenek Tuma	Master i hagfræði	Prófessor í hagfræði og efnahagsráðgjafi
Tyrkland	Durmus Yilmaz	Master í hagfræði	Störf innan bankans
Tæland	Tarisa Watanagase	Doktor í hagfræði	Störf innan bankans og IMF
Ungverjaland	András Simor	Master i hagfræði	Fjármálakerfi og störf innan bankans

Alls eru 20 seðlabankastjórar á listanum. Af þeim eru allir með framhaldsmenntun í hagfræði og þar af 12 (60%) með doktorspróf í hagfræði. Heimildir: Heimasíður seðlabanka.

Seðlabankastjórar víðsvegar um heiminn (upplýsingar m.v. 6. febrúar 2009)

Land	*Seðlabankastjóri*	*Menntun*	*Meðal fyrri starfa*
Austurríki	Ewold Nowotny	Doktor í lögfræði og hagfræði	Prófessor í hagfræði og störf innan fjármálakerfisins
Bandaríkin	Ben Bernanke	Doktor í hagfræði	Hagfræðiprófessor
Belgía	Guy Quaden	Doktor í hagfræði	Hagfræðiprófessor
Danmörk	Nils Bernstein Torben H. Nielsen Jens Thomsen	Master í hagfræði Master í hagfræði Master í hagfræði	Háskólakennari og störf í bankakerfinu Störf í bankakerfinu Háskólakennari og efnahagsráðuneyti
ECB	Jean-Claude Trichet	Master í hagfræði	Störf hjá hinu opinbera, IMF, bankastjóri Frakklandsbanka og hagfræðiprófessor
Finnland	Erkki Liikanen	Master í hagfræði	Fjármálaráðherra og ESB
Frakkland	Christian Noyer	Lögfræðingur	Fjármálaráðuneyti og ECB
Grikkland	Georgios Provopoulos	Doktor í hagfræði	Hagfræðiprófessor, störf innan fjármálakerfisins og störf innan bankans
Holland	Nout Wellink	Doktor í hagfræði	Háskóiakennari, fjármálaráðuneyti og störf innan bankans
Indland	Duuvuri Subbarao	Doktor í hagfræði	Fjármálaráðuneyti og Worid Bank
Ítalía	Mario Draghi	Doktor í hagfræði	Fjármálakerfi og fjármálaráðuneyti
Japan	Masaaki Shirakawa	Master í hagfræði	Hagfræðiprófessor og störf innan bankans
Lúxemborg	Yves Mersch	Lögfræðingur	Háskólakennari og fjármálaráðuneyti
Portúgal	Vitor Constancio	Master í hagfræði	Bankakerfi, ráðherra, háskólaprófessor ofl. störf
Spánn	Miguel Ordonez	Gráða í lög- og hagfræði	Hagfræðikennari, OECD, ráðherra og IMF
Þýskaland	Axel Weber	Doktor í hagfræði	Hagfræðiprófessor

Alls eru 18 seðlabankastjórar á listanum. Af þeim eru 16 (89%) menntaðir hagfræðingar og þar af 8 (44%) með doktorspróf í hagfræði. Þeir tveir seðlabankastjórar sem ekki eru menntaðir hagfræðingar eru bankastjórar banka innan ESCB-kerfisins sem eru ekki bankar með sjálfstæða peningastefnu heldur eru undir ECB. Heimildir: Heimasíður seðlabanka.

WP/05/183

IMF Working Paper

Governance Structures and Decision-Making Roles in Inflation Targeting Central Banks

Anita Tuladhar

INTERNATIONAL MONETARY FUND

 WP/05/183

IMF Working Paper

European Department

Governance Structures and Decision-Making Roles in Inflation Targeting Central Banks

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Authorized for distribution by Juan José Femández-Ansola

September 2005

Abstract

This paper surveys decision-making roles of governing bodies of central banks that have formally adopted inflation targeting as a monetary framework. Governance practices seek to balance institutional independence needed for monetary policy credibility with accountability required to protect democratic values. Central bank laws usually have price stability as the primary monetary policy objective but seldom require an explicit numerical inflation target. Governments are frequently involved in setting targets, but to ensure operational autonomy, legal provisions explicitly limit government influence in internal policy decision-making processes. Internal governance practices differ considerably with regard to the roles and inter-relationships between the policy, supervisory, and management boards of a central bank.

JEL Classification Numbers: E42, E52, E58

Keywords: Inflation targeting, governance, central bank independence, price stability

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[1] This paper was mainly written while the author was with the Monetary and Financial Systems Department. I would like to thank Tonny Lybek, Joanne Morris, Giovanni Ganelli, Arne B. Petersen, Franek Rozwadowski, Mark Stone, and Natalia Tamirisa for helpful comments and suggestions. All errors and omissions are my own.

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I. Introduction

Over the past few years, an increasing number of countries have started to adopt inflation targeting as their monetary policy framework. This has usually involved institutional restructuring of central banks. Practitioners have thus frequently asked: what is the appropriate governance framework that enables monetary policy to focus credibly on a low, stable inflation rate over the medium term? In particular, what is the role of government in monetary policy decision-making? How are the internal decision-making processes designed? To what extent are central banks held accountable for meeting inflation objectives?

This paper surveys governance structures and institutional decision-making roles among some inflation targeting central banks and seeks to identify common practices among them. The paper does not set out to discuss best practices, but it is expected that the information gathered could serve as input for future analysis of the relationship between governance structures and performance. While there are many central banks that pursue a defacto inflation targeting policy, this survey is limited to countries that have formally announced a numerical inflation target and abandoned exchange rate and monetary targeting.[2] While governance of central banks embodies standard features of clear objectives, transparency, and accountability, it differs significantly from other governance practices in that the role of the main shareholder—the government—is limited in conducting monetary policy. The study thus examines the institutional relationships between governments and central banks. It also focuses on internal governance structures and accountability in the monetary policy decision-making process. The information is collected primarily from the central bank legal texts and central bank websites.

The survey finds that governance practices seek to balance two main criteria: democratic accountability in fulfilling monetary policy objectives as set out by its principal shareholder and the authority needed for the central bank to achieve these objectives in a credible manner. While practices vary considerably across these inflation targeting countries, some common themes emerge. First, the objective(s) of monetary policy are specified in law and are not at the discretion of the central bank. Price stability is usually the sole or primary monetary policy objective specified in law. Second, adoption of an inflation targeting framework is seldom formalized in law. Third, governments are usually responsible for setting targets, at times jointly with the central bank. Governments may even have override authority for a limited period in case of a policy conflict, but they have been seldom invoked. Fourth, central banks among the surveyed emerging markets tend to have more dejure independence and the policy decision-making role rests mainly with internal management. Fifth, in rare cases, the governor is solely responsible and personally accountable for monetary policy decision-making. Finally, monetary policy decision-making boards are held to high standards of transparency and are directly accountable to the legislature or government.

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[2] All references in the paper are limited to the countries in the survey. For a more comprehensive discussion of central bank governance structures, see Lybek and Morris (2004).

The paper is organized as follows. Section II reviews the purposes of inflation targeting. Section III surveys the policy decision-making role of governing bodies. Sections IV and V examine accountability and other provisions. Section VI concludes.

II. Central Bank Objective: Price Stability

An increasing number of countries have started to adopt inflation targeting as the monetary framework, committing to price stability as the main objective and medium to long term inflation as the nominal anchor. There exist varying degrees of commitment to the inflation target across countries. Those countries which subordinate all other objectives to the goal of attaining a targeted inflation and have publicly announced such a framework are referred to as practicing full fledged inflation targeting (FFIT).[3] This reflects a transition away from monetary targeting, particularly for more developed economies, and exchange rate targeting for emerging markets.[4]

Why long run price stability? Studies have shown that, in the long run, inflation—at least at double digit levels—is negatively correlated with economic growth.[5] High inflation also leads to more variable inflation which can be costly for the economy. In the short run, however, there is a positive correlation between growth and inflation. If authorities have discretion to choose between multiple objectives of price stability and economic growth, there is an incentive to create "surprise" inflation, particularly in the run-up to elections. This time-inconsistency problem leads to an inflationary policy bias.

To avert the short term inflation bias arising from discretionary policy, an inflation targeting framework gives "constrained discretion" to independent central banks.[6] It is based on a principal-agent relationship between the government and central bank. The government's role of monetary policy decision-making—at a minimum, its implementation—is delegated to an independent central bank while providing an optimal incentive contract for the central bank to conduct monetary policy. In doing so, it maintains the discretionary authority of central bankers to respond to new information—an important tool given information asymmetries and policy lags—while putting in place incentives to deliver low inflation. Such incentive design include legislation of policy goals, process of appointment and reappointment of monetary policy committee members, reporting requirements, among

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[3] See Carare, Schaechter, Stone and Zelmer (2002) and Carare and Stone (2003). This survey tries to cover these FFIT country practices. The countries surveyed include Australia, Brazil, Canada, Chile, Colombia, Czech Republic, Hungary, Iceland, Israel, Republic of Korea, Mexico, New Zealand, Norway, Peru, Philippines, Poland, South Africa, Sweden, Thailand, and the United Kingdom. The European Central Bank practices are also examined.

[4] For trends in the choice of nominal anchors, see Cottarelli and Giannini (1997).

[5] See Barro (1995) and Fischer (1995).

[6] Alternative policy mechanism such as rules-based policy have been advocated to minimize this bias, but this is considered to be overly restrictive and suboptimal in the face of supply shocks.

others.[7] Central bank independence thus seeks to maintain credibility with greater flexibility by providing an institutional bias towards long term price stability.

III. Decision-Making Role of Governing Bodies

A. Central Bank Independence

Central bank independence is a well established principle among inflation targeting central banks, but the degree of autonomy from the government in decision-making varies considerably among them. Central bank independence can be classified at three levels of decision-making: (i) goal, (ii) target, and (iii) instrument.[8] This section discusses the decision-making roles of the central bank and the government in determining monetary policy goals, targets and instruments, as summarized in (Table 1). It also describes some trends, rationale, and other related legal provisions on the respective roles of the decision-makers.

Among the inflation targeting countries surveyed, the government generally sets the broader goals of monetary policy. The central bank has complete discretion to use its instruments to achieve the target in keeping with its goals. In setting targets, however, the role of government varies across countries. Even though central bank independence is accepted as conventional wisdom, stronger government role in decision-making is sought to ensure that economic policy making will be made by elected officials and will not suffer from a "democratic deficit." The extent of government involvement thus reflects the balance sought in maintaining independence for reasons described above and for maintaining democratic accountability.

Goal autonomy

Inflation targeting central banks in the survey usually do not have goal autonomy—the government sets the objectives of monetary policy and the central bank does not have the discretion to determine these objectives. The objectives are laid out either in the central bank charter or spelled out in government directives or agreements depending upon the details in the law. Establishing the monetary policy objective(s) in a legislative framework, however, has not been a precondition for adopting an inflation targeting framework. In many industrial countries, legal changes took place after adoption of inflation targeting (Carare, Schaechter, Stone, and Zelmer, 2002). Emerging market countries that have adopted inflation targeting

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[7] See Walsh (1995), and references therein.

[8] A distinction is made between monetary policy goals and targets. Goals refer to the objectives of monetary policy. These may include price stability, exchange rate stability, financial stability, economic growth, full employment. Targets refer to the numerical inflation or other types of targets committed to achieve the objectives. For further details, see Lybek (1998). Instruments used to achieve these targets may include open market operations, reserve requirements, discount window, credit auctions. See Alexander, Baliño, and Enoch (1995) for a discussion of direct and indirect instruments of monetary policy.

Table 1. Central Bank Objectives, end–2003

Country/Central Bank	Target set by	Instrument set by	Primary or sole objective of monetary policy 3/	Inflation targeting in law
Australia	Joint 2/	Central bank		No
Brazil 1/	Government (National Monetary Council)	Central bank		No
Canada	Joint 2/	Central bank		No
Chile	Central bank	Central bank	Currency Stability	No
Colombia	Central bank	Central bank	Price Stability	Yes
Czech Republic	Joint 2/	Central bank	Price Stability	No
European Central Bank (ECB)	Central bank	Central bank	Price Stability	No
Hungary	Joint	Central bank	Price Stability	No
Iceland	Joint 2/	Central bank	Price Stability	Yes
Israel 1/	Government	Central bank		n.a.
Korea, Republic of	Joint	Central bank	Price Stability	Yes
Mexico	Central bank	Central bank	Price Stability	No
New Zealand	Joint 2/	Central bank	Price Stability	No 4/
Norway	Government	Central bank		No
Peru	Central bank	Central bank	Monetary Stability	No
Philippines	Joint	Central bank	Price Stability	No
Poland	Central bank	Central bank	Price Stability	No
South Africa 1/	Government	Central bank	Currency Stability	No
Sweden	Central bank (but must inform government in advance)	Central bank	Price Stability	No
Thailand	Central bank (MPC)	Central bank		No
United Kingdom	Government	Central bank	Price Stability	No 4/

Source: Central bank legal texts and websites.
n.a. Information not available.
1/ New law or amendments being considered.
2/ Target specified in a publicly disclosed agreement or directive by government.
3/ Primary or sole objective only where specified. In case of multiple objectives, the objectives are not listed.
4/ Act requires a specific agreement with government or directive by government.

generally preferred to amend their central bank legislative framework to allow certain degree of independence and build-up of credibility before introducing inflation targeting. In Latin America and some new members of the European Union, the central bank objective is also specified in the constitution, reflecting regional tradition and greater independence sought given historical inflationary trends. But numerous studies have found that legislation of goals has not been sufficient to ensure credibility.[9]

[9] Empirical evidence on central bank legal independence and inflation has been shown to be significantly negative for developed countries, but insignificant for developing countries (Cukierman, 1992). Subsequent research has shown that the relationship breaks down when controlling for additional macroeconomic variables

(continued…)

In many cases, price stability is specified as the single objective of monetary policy to avoid a time-inconsistency problem, or as a primary objective to avoid confusion in case of a policy conflict (Table 1). In a few countries, the law specifies the monetary policy objective more broadly as currency stability, which is interpreted as domestic price stability (internal) and exchange rate stability (external). In case of multiple objectives, price stability is often specified as the primary goal and sometimes legal provisions are specified to ensure the primacy of price stability. For example, the New Zealand central bank charter allows the central bank to not comply with government directives on foreign exchange that conflict with the monetary policy objective of price stability. In Hungary, provisions subordinating exchange rate policy to price stability also exist.

As discussed earlier, a single objective for monetary policy is needed to avoid a time-inconsistency problem that could lead to an inflationary bias. Having a single objective of price stability (and not output growth) is also consistent with the monetarist view that in the long term, monetary policy can only affect prices and not real variables. It also reflects the fundamental theory that with a single instrument, monetary policy can have only a single objective. Countries have also found that specifying a single objective helps to clarify the purpose of disinflation in the initial stages of inflation targeting, when the economy experiences a deep contraction.

There are, however, costs to achieving price stability, such as output variability. To minimize these costs, the monetary framework incorporates additional considerations in setting up the target. These include the choice of the target index, escape clauses and the horizon over which inflation is brought within target. These aspects along with the authority to determine targets are discussed below.

Target autonomy

Most central banks in the survey do not have target autonomy—the government is responsible for setting and announcing monetary policy targets, either solely or jointly with the central bank (Table 1). In Norway, the government sets the target, which is formally stipulated in a regulation and is submitted to the national assembly. In the United Kingdom, the government sets the target in the Annual Remit which is also confirmed in the budget. When set jointly, as is the case in Australia, Canada, and New Zealand, the target is formalized through an agreement, binding for a pre-set period (5 years in Canada) or for the term of the governor, such as in Australia and New Zealand. In some cases, the central bank must seek consent from the government (Iceland) or at least inform the government in advance (Sweden).

(Fuhrer, 1997, Posen, 1993 and 1995). In transition countries, central bank independence is not related with inflation in early stages of liberalization though the relationship is negative when controlled for price deregulation, wars and sustained level of liberalization (Cukierman, Miller and Neyapti, 2000). A positive relationship between central bank autonomy and lower inflation has been found for the former Soviet Union countries (Lybek, 1999). The literature also cautions that legal independence does not necessarily imply real independence and that the negative relation with inflation breaks down under alternative measures of central bank independence (Campillo and Miron, 1997).

Most of the surveyed emerging market countries appear to have more target autonomy, but the government may still exert considerable influence. The central bank board is usually responsible for setting the inflation target in many countries such as Brazil, Chile, Colombia, Czech Republic, Peru, Poland, and Thailand. But it may be the case that the government is formally represented in the board (Colombia) or the Minister may enjoy broader powers in overseeing the central bank (Thailand). The greater degree of de-jure independence likely reflects historical inflationary experience linked to monetization of deficits, which also explains explicit provisions limiting credit to government as discussed later.

In most countries surveyed, the law does not does require a quantitative inflation target to be adopted and hence the decision-making authority for setting targets is not specified. In fact, there are only three countries (Colombia, Republic of Korea and Iceland), where the central bank law specifies that an inflation target is to be adopted. In two other cases (New Zealand and the United Kingdom), the law requires a policy agreement/directive with the government, but does not explicitly specify that an inflation target is to be determined.

Increased government involvement in setting targets has coincided with the trend towards adoption of an inflation target. Allen and Sterne (2001) survey find that whereas money targets are set in most cases by the central bank, inflation targets are decided by the government, either independently or jointly with the central bank. This possibly reflects the fact that central banks have a comparative advantage in understanding and predicting developments in monetary aggregates. Inflation target, on the other hand, is a more visible and comprehensible indicator used by government to communicate to the public and to engage the central bank in policy setting. However, in transition countries where the long run target may vary considerably from the medium run target, the issue of who sets the target is more complex.[10] Central banks may be better positioned to judge an achievable medium-run target as they are well informed about the lags in monetary policy transmission and the speed with which inflation can converge to the long run levels (Mishkin and Schmidt-Hebbel, 2002).

When targets are set jointly through an agreement, at issue is whether the agreement should hold for the period of the tenure of the governor or the government. In New Zealand, the policy target agreement is valid for the full five year tenure of the governor. But the law allows for revisions at the time of change of government provided it is documented publicly before the board and the legislature. It has been argued that in order for monetary policy to have sufficient democratic accountability, government should have a binding agreement with

[10] A few emerging market countries have also adopted multiple operational targets such as exchange rate, money, and inflation. Pre-1999 Chile, Israel and Poland adopted both an inflation target and an exchange rate band around a crawling peg where the rate of crawl is derived from the target inflation rate. Allen and Sterne (2001) find there is an average of 1.5 targets per country in their sample of countries and there continues to be an ongoing debate on the inclusion of other intermediate targets. But attainment of the inflation target takes priority over other targets should a conflict arise. In practice, given the importance of exchange rate uncertainty, the frequency of shocks, and the fragility of the financial sector, exchange rate interventions are not uncommon in emerging markets (Carare and Stone, 2002).

the central bank until the mandate of the government lasts (Siklos, 2002). However, this would create additional uncertainty when a new government comes to power and would risk creating an inflation bias.

Choice of target and escape clause

Headline consumer price index (CPI) inflation over the medium term is usually the target choice, but countries try to maintain some flexibility (Table 2) recognizing the costs of strictly maintaining price stability. For instance, they also closely track less volatile "core" inflation that excludes indirect taxes and volatile food and energy prices. Many countries also adopt a target range. But with increased flexibility there is more risk of losing credibility. Central banks target headline inflation to preserve transparency, but also publicly recognize the limitations posed in meeting the targets in the face of unanticipated supply shocks. Indeed, Allen and Sterne (2001) survey shows that target breaches were not uncommon and the median absolute inflation target miss was 1½ percent.

Thus, escape clauses may be included to provide more flexibility (Table 2). Escape clauses aim to specify conditions under which the target may not be achieved. They typically include terms of trade shocks, supply shocks and indirect taxes. Shocks included in the escape clause need to be clearly identifiable as exogenous. In New Zealand, the bank can also give notice to the government that the policy target will not be achieved in case the government directs the bank to implement foreign exchange rate policy that is inconsistent with achieving the target. In such a case, new policy targets shall be developed within a month of providing such a notice. When invoking an escape clause, the law usually requires that the reasons be clearly explained to the public. In practice, targets are being used in a flexible manner, serving more as an imperfect indicator of policy reaction to follow.

Instrument autonomy

Instrument autonomy is a prerequisite in all inflation targeting countries (Table 1). In other words, once the policy objective and target are laid out, the central bank should be able to achieve them without the approval or operational help of other policymakers or political entities. In particular, government approval is not required for monetary operations and managing of liquidity of the banking system. Some key provisions implemented to ensure the firewalls between government and central bank are described below.

Government representation in governing board and monetary policy committee

When government is represented in the monetary policy decision-making committee, it is generally present as an observer without voting rights. Central banks are thus fully responsible and accountable for day-to-day implementation of monetary policy. Frequently, ministers and government representatives are restricted from full membership. Table (3) presents the cases among the countries surveyed where the government is a full member and the more common cases where government is represented in a non-voting capacity.

Table 2. Targets and Escape Clauses, end–2003

Country	Target	Underlying Index	Escape Clause	Target Breach
Australia	Average 2-3%	CPI		
Brazil	5.5% +/- 2.5% (2004)	CPIA (Broad)		Public Letter to Minister of finance explaining reasons for breach, measures and timeframe to meet target.
Canada	2%; 1-3% band	CPI; operational guide is core CPI (excludes 8 volatile components and indirect taxes)		Explanation in monetary policy report on reasons for breach, measures and timeframe to meet target.
Chile	2-4%, average of 3%	CPI; focus on core CPI (excludes fruits, vegetables and fuel)		
Colombia	5-6% for 2003; 3-4% long term	CPI; monitoring of core CPI (excludes supply shocks)		
Czech Republic	target band: 3-5% to 2-4%; net: 1-3%	Headline CPI; net inflation (excludes regulated prices and indirect taxes)	Unanticipated developments in external prices, natural disasters, conditions affecting agricultural production	
ECB	close to 2%	Harmonized Index of Consumer Prices (HICP)		Explanation of reasons for sustained deviation and how price stability will be reestablished.
Hungary	3.5% +/- 1%	CPI		
Iceland	2.5% +/- 1.5 %	CPI		Public report to government explaining reasons for target breach and bank's measures to meet target.
Korea, Rep. of	2.5-3.5%	Core CPI (stripped of 49 items)		
Mexico	3%	CPI		
New Zealand	Average 1-3%	CPI	Transitory fluctuations of world commodity prices, indirect taxes, natural disaster	Explanation through a policy statement reasons for deviation from medium term target, and measures to remain consistent with target.
Norway	2.50%	Core CPI (excludes indirect taxes, effects of interest rate changes and extraordinary temporary developments)		
Peru	2.5% +/- 1%	CPI		
Philippines	4.5% - 5.5% for 2003; 5-6% for 2005; 4-5% for 2006	Headline CPI	Volatility in the prices of unprocessed food, oil products, significant government policy changes relating to tax and subsidies and natural factors	Open letter from BSP Governor to the President explaining the reasons why actual inflation did not meet the target, along with measures to be adopted to achieve the inflation target.
Poland	2.5% +/- 1%	CPI	External factors, food and officially controlled prices	
South Africa	3-6%	CPI excluding mortgage interest cost	Supply shocks including terms of trade, international capital flows and natural disasters	Explanation required.
Sweden	2%+/- 1%	CPI	Transitory and large sudden shocks, nature of shocks announced in advance (mortgage interest, indirect tax, supply shocks)	Deviations to be explained during Governor's annual appearance in Parliament.
Thailand	0-3.5%	Quarterly average core CPI (excludes raw food and energy)		Public explanation of reasons for breach and timeframe needed to meet target
United Kingdom	2.00%	CPI		An open letter from the governor to the Chancellor when inflation deviates by 1 percentage point from target. An additional letter to the Chancellor if after 3 months, inflation remains more than 1 percentage point above or below the target. Letters include reasons, actions to be taken, timeframe to meet target and how the approach met the monetary policy objectives.

Source: Central bank websites.

The law frequently requires the government and the central bank to share information and consult on monetary policy matters to ensure coordination (Table 3). This is particularly important for day-to-day liquidity management if government maintains its deposits with the central bank and for public debt management. Central banks are required to inform the government in advance in case of major decisions, although an approval is usually not required. In fact, laws in EU member countries specify that the central bank shall not seek or take instructions from government. The European Central Bank (ECB) law also similarly specifies that instructions shall not be sought or taken from any European Commission (EC) institutions or member state governments. Central bank presidents or governors may also attend meetings of the Council of Ministers. In some cases, government can also call the meeting of the monetary policy decision-making committee and table a motion for discussion.

Appointment and dismissal of governor and committee members

To protect against government interference, the appointment and dismissal process of the central bank governor is subject to certain safeguards. Key elements of this process are: i) a double-veto arrangement; ii) term in office of committee members versus political election cycle; and iii) grounds and process of dismissal such as misconduct, approval of legislature and appeal process.

As shown in Table (4), governors are mostly appointed by the executive with ratification or confirmation by either the legislature or the head of the state. In a few countries, however, the governor is nominated by the members of the board; but the appointment process for board membership still follows the double-veto process. In Chile and Mexico, the governor is appointed from among the board members. Among the countries surveyed, the appointment is generally for an average period of around 6 years—longer than the election cycle of the body with the predetermined influence on the appointment process—and is renewable. Other considerations are that the tenure should be long enough to build up a reputation and voting patterns. Many countries have term limits out of concern that independence may be compromised if the appointment is subject to frequent renewal.

While all countries have dismissal provisions for misconduct or incapacity, a few also include non-performance as a criterion, although such provisions may be difficult to implement. The authority for dismissal is usually vested to the same entity who appoints the governor. Sometimes, the recommendation or a motion for dismissal is required from a certain number of members of the board of directors. (Table 4) also presents some cases where governors may be dismissed for non-performance. Non-performance as a criteria remains highly controversial given the inherent difficulties in assessing the impact of policy (for example, due to transmission lags and uncertainty in identifying the specific factors behind target misses). As a result, such provisions cannot be quickly invoked. Furthermore, dismissal of the governor may be very costly as it may be perceived as a loss of independence leading to a loss of credibility.

Table 3. Role of Government in Decision-Making, end–2003

Country	Chair/full membership	Membership/ attendance in non-voting capacity or as observer	Explicit restrictions on (external) membership by government	Legal provision for information sharing with government
Australia	Secretary to Treasury			Regular consultations
Canada		Deputy Minister of Finance in BoD	Public service employee	Regular consultations
Chile		Minister of Finance		
Colombia	Bank President: Minister of Finance		No other minister, director of administrative department, ambassador	Consult government
Czech Republic		Minister of Finance	No member of government	Inform government; but may not take or seek instructions; government may table motions; governor may attend government meetings
ECB				ECB shall be consulted and may provide opinions in its field of competence; May not seek or take instructions from any external body; The Community institutions and bodies and the governments of the Member States may not seek to influence the members of the decision-making bodies of the ECB or of the National Central Banks in the performance of their tasks
Hungary		Minister of Finance		Inform government; but may not take or seek instructions
Iceland				Government required to provide information on Treasury finances
Israel				Governor can attend Ministerial meetings
Korea, Rep. of		Vice Minister of Economy and Finance		May request information from each other; The Governor may attend and state his opinion on matters related to money and credit
Mexico		Minister and Deputy Minister of Finance		Can call meeting of Board and suggest issues
New Zealand				Consult and advise government in writing
Norway			No government ministers, state secretaries, members of parliament, ministry officials, or their closely associated persons	Decisions of special importance shall be submitted to the Ministry
Peru				Submit to the Minister of Finance a report on all aspects of the economic policy that negatively affect the Bank's objectives
Philippines	Cabinet member			
Poland		Representative of Council of Ministers		Representative may submit motion for consideration by Council; Bank President may attend meeting of Council of Ministers
South Africa			No minister or deputy minister in the government	Regular discussions with the Minister of Finance; Minister prescribes regulations for the Central Bank Act.
Sweden		Chair/ Vice Chair of Governing Council	No government minister or official	Inform government in advance; but may not take or seek instructions from government
Thailand				Minister is responsible for general supervision of the central bank
United Kingdom		Representative of Treasury	No minister or anyone serving in government under parliament payroll	

Source: Central bank legal texts and websites.

Table 4. Appointment and Dismissal Provisions for Governor, end–2003

Country	Appointed by/ Confirmed by	Term length	Term limits	Dismissal for non-performance
Australia	Treasurer	Up to 7	Renewable	
Brazil	President/ Senate	7	Renewable	
Canada	Board of Directors/ Governor in Council	7	Renewable	
Chile	President (with prior approval of Senate)	5	2 terms	By President with prior approval of Senate and request of 3 board members for non-fulfillment of board policies and procedures and bank objectives
Colombia	Board	4	3 terms	
Czech Republic	President	6	2 terms	By President for failing to meet conditions required for fulfilling the job and failing to perform duties for 6 months.
ECB	Council (consult with European Parliament and Governing Council)/Member state governments	8	Non-renewable	The Court of Justice, upon application by the Governing Council or the Executive Board, may compulsorily retire for misconduct or if no longer fulfils conditions for performance of duties
Hungary	PM/ President	6		By President for failing to meet conditions required for fulfilling the job.
Iceland	PM	7	2 terms	Under the Act on the Rights and Obligations of Government Employees
Israel	Government/ President	5		
Korea, Rep. of	State Council/President	4	2 consecutive terms	For failing to meet functional obligations and under the Act on National Public Officials Act.
Mexico	President/Senate	6 (appointed on 4th yr of president's term)	Renewable	By board of governors with a majority decision upon request by President and two board members, for failing to observe agreements sanctioned by the board of governors.
New Zealand	Board/Minister	5	2 terms	BoD may recommend dismissal. Governor General may dismiss on advice of Minister.
Norway	Government	6	2 terms	
Peru	Government/ Congress	5	Renewed on July 28 of each election year	
Philippines	President	6	1 reappointment	Governor may be removed for incapacity, fraud, activity against the interest of the central bank, or for failing to meet conditions set by the charter.
Poland	President/ Sejm	6	2 consecutive terms	
South Africa	President after consultation with government and board	5	Renewable	
Sweden	General Council	6	Renewable	General Council can dismiss Executive Board members with eight votes.
Thailand	Cabinet/ King			
United Kingdom	Queen	5	Renewable	

Source: Central bank legal texts and websites.

The government's role in appointing monetary policy board members is less uniform across countries, however, there is considerable emphasis on continuity and minimizing conflicts of interest. There are fewer requirements for a double-veto process and terms are of an equal or shorter duration that that of the governor (Table 5). At the same time, the authority to make appointments tends to be shared among different constitutional bodies; membership sometimes includes nominees of employees and the private sector. There is much emphasis on continuity by staggering the appointments or limiting the number of retirements in a year so that the terms of the members are overlapping and the change in membership is not too disruptive. This also limits the influence of political change. Membership is generally restricted for government staff, parliamentarians and politicians. Members are also restricted from being affiliated with financial institutions, but this may be limited to bankrupt or those institutions under supervisory action.

Limits on central bank financing of deficits

To maintain operational autonomy, many inflation targeting central banks have explicit provisions in the law limiting or even prohibiting central bank financing of fiscal deficits (Table 6). In principle, a commitment to an inflation target sets implied limits on credit to the government, but it is more transparent and easier to monitor if central bank credit is prohibited or at a minimum explicitly limited. This includes restrictions on direct central bank credit to the government and indirect credit through secondary market trading of government securities. The different types of limits are discussed in more detail in Lybek (1998). The restrictions usually extend to all types of public institutions although public credit institutions are exempted. Where credit is allowed, collateral of marketable securities is sometimes required. Limits are specified not only in terms of the amount, but also the time period within which the credit needs to be repaid.

B. Conflict Resolution

Although central banks have operational autonomy, some central bank laws allow override authority by government, to be invoked on an exceptional basis in the event of a policy conflict. These provisions are intended to provide clarity so that should a conflict arise between government and the central bank, it is resolved without losing public confidence. Such provisions appear to be more common among the surveyed developed economies. Table (7) lists such provisions and the accompanying features.

When override authority is exercised, the existence of a policy conflict is usually made public but the mechanism of resolving them and the degree of override authority varies across countries. Overrides may be as a government 'directive' issued to the central bank. It may involve an appeal process through the central bank governing board. For instance, government can object to the policy decision in the central bank governing body, and delay implementation of the decision until a sufficient time lapses (Chile). The legislature can be required to intervene (Australia and Canada) or at least be informed (Norway and the United Kingdom). Government overrides are usually made public. They need to be published and sometimes debated in Parliament (New Zealand). Time limits for government overrides are common (Canada, Chile, New Zealand, and the United Kingdom). There is, however, no evidence yet of such override clauses ever being used.

Table 5. Appointment Provisions for Monetary Policy Committee Members, end–2003

Country	Committee Members 1/			Restrictions on affiliations with institutions
	Appointed/Confirmed by 2/	Term Length	Term Limits	
Australia	Treasurer	Up to 5		Financial
Brazil	President/Senate	7	Renewable	Other positions
Canada	Minister/Governor in Council	3	Renewable	Government, political, financial
Chile	President/Senate	10	2 terms; staggered	All except academic
Colombia	President	4	3 terms; staggered	Political, financial, government
Czech Republic	President	6	2 terms	Government, political, financial (supervisory functions)
ECB (Executive Board)	Council (in consultation with European Parliament and Governing Council)/Member state governments	8	Non-renewable	no other occupation
Hungary	Central Bank President/Prime Minister/President	6		Business, financial, political, government
Iceland	Prime Minister	7	2 terms	Business
Israel	Government/President	5		
Korea, Rep. of	State Council (1), Governor (1), Minister of Finance (1), Financial Supervisory Commission (1), KCCI (1), Federation of Banks (1) / President	4	Renewable	Political, government, financially gainful activity
Mexico	President/Senate	8	Renewable; staggered	
New Zealand	Minister	5	Renewable (no more than 2 can retire per year)	Political, financial
Norway	Government	4	3 terms; staggered	Government, political
Peru	Government/ Congress(3), Congress(3)	5	Renewable	Financial (in bad standing)
Philippines	President	6 (3), 3 (2)	1 reappointment	Financial, "public appointment", Institution subject to BSP supervision.
Poland	President (3), Sejm.(3) and Senate(3)	6		Political, labor unions, "gainful or public activity"
South Africa	Government and Board/President (7), Shareholders (7)	5 (4), 3 (3), 3 (7)	Renewable	Financial, government, political
Sweden	General Council	6	Renewable	Government, political, financial
Thailand	Ex-officio			
United Kingdom	Ex-officio (3); Governor and Chancellor of Exchequer (2); Chancellor of Exchequer (4)	3	Renewable; staggered	Government; member of Court of Directors (except Governor and Deputy Governors)

Source: Central bank legal texts and websites.
1/ Figures in parentheses indicate number of members.
2/ Also represents a double veto system of recommendation/appointment.

Table 6. Credit to Government, end–2003

Country	Credit to government	Amount limits in place	Guarantees allowed	Purchase securities in primary market	Purchase securities in secondary market
Australia	Yes	None	Yes	Yes	Yes
Brazil	Yes (as special issue with Presidential decree)	None	No	Yes	Yes
Canada	Yes	Percentage of previous year's revenue (1/3 for central government) and (1/4 for provincial government) ; up to 6 months			
Chile	No (except at time of foreign war as qualified by the Council of National Security)		No	No	No
Colombia	Yes under special circumstances	None		No	Yes
Czech Republic	No		No	No	Yes
ECB	No			No	Yes
Hungary	No			No	
Iceland	No		No	No	Yes
Korea, Rep. of	Yes	Within debt limit authorized by National Assembly		Yes	Yes
Mexico	Yes	1 ½ percent of budgeted government expenses		Yes (against cash deposits)	
Norway	No			Yes	Yes
Peru	No		No	No	Yes (up to 5% of previous year's monetary base)
Philippines	Yes (advances)	Percent of average income of last three years (20 percent); up to 6 months	No	No	Yes
Poland	No			Yes	Yes
South Africa	Yes	None	Yes	Yes	Yes
Sweden	No (except intraday)			No	Yes
Thailand	Yes	Percentage of expenditure (25 percent); repayment within Q1 of following year		Yes	Yes

Source: Central bank legal texts and websites.

C. Internal Decision-Making

The role and structure of internal decision-making bodies vary considerably among the inflation targeting countries surveyed. This section examines more closely the role and responsibilities of the governor, the supervisory board and the monetary policy board in the monetary policy decision-making process. The setup of the monetary policy board is also examined. The monetary policy board is the committee responsible for setting the targets (if central banks enjoy target autonomy) and setting the instruments such as interest rates. The supervisory board is responsible for ensuring that the central bank is fulfilling its objectives and approving the annual reports and budgets. This may or may not include supervision over monetary policy decisions as discussed below.

Table 7. Conflict Resolution, end–2003

Country	Government override provision	Conflict made public	Appeal process			Time limit
			Other	CB Board	Legislature	
Australia	Yes, after board presents a statement expressing a difference of opinion and government accepts responsibility	Yes	Through governor general and Federal Executive Council whose decision is binding		Decision tabled in Parliament along with respective opinions	No
Canada	Yes, through government directive	Yes (Canada Gazette)	Directive by Government in consultation with governor in council which is binding		Tabled in Parliament within 15 days for information purposes	Yes (time limit for validity of the directive)
Chile	Yes, through temporary suspension of decision	No, but suspension is effected through gazette		A unanimous vote of the Board will not require implementation of suspension		Suspension for 2 weeks
Korea, Rep. of	No	Yes	Government can request for reconsideration; final decision rests with President			
New Zealand	Yes; by Governor-General on advice of Minister	Yes (Gazette and House of Representatives)				Maximum of 12 months
Norway	Yes; Government may issue rules or instructions	Yes, Storting is notified of decision				
South Africa	Yes, by providing notice in writing to the Board	No	Division of Supreme Court with jurisdiction			No
United Kingdom	Yes; in exceptional national circumstances	Yes (presented in Parliament)				Lapses in 28 days unless ratified in Parliament

Source: Central bank legal texts and websites.

Individual versus committee-based decision-making

Internal decision-making responsibility for monetary policy lies mostly with committees. But in a few cases, such as Canada, Israel, and New Zealand, the governor is the sole decision-maker (Table 8). Their monetary policy decision-making role is with regard to implementation, namely setting the instruments. Having the governor as the decision-maker promotes clear accountability and avoids dilution of responsibilities. But it also risks placing excessive power and dependence—or perception thereof—in the hands of a single individual and limits decisions on the basis of a very narrow outlook. A monetary policy committee usually exists at an advisory level where information, forecasts and decisions are discussed extensively.

Role of the Internal Boards: policy, supervisory and management

With greater autonomy, a stronger, if not separate supervisory authority is justified; but there is no indication of this trend. In some countries with target autonomy (Sweden, Thailand), the supervisory body is separate from the monetary policy board. But in a number of other countries with target autonomy (Chile, Colombia, Mexico, Poland), the same board performs both supervisory and monetary policy functions. Where the governor is the sole monetary policy decision-maker, the supervisory body is expected to have a stronger monitoring role. It has been argued that supervisory board membership and chair should comprise of non-executive members to avoid conflicts of interest if the primary task of the bank board is to monitor the performance of the governor and the bank on behalf of the minister of finance. Accordingly, the Reserve Bank of New Zealand changed the chairmanship of the board of directors from the Governor to an external nominee and removed the deputy governor from the board's membership.

In a few countries, a separate supervisory board is responsible for general oversight functions, but their tasks exclude supervision of monetary policy performance (Table 8). These supervisory functions include internal audit, budget and internal working rules. Countries with a separate supervisory board include Hungary, Iceland, Norway, Poland, Sweden, Thailand, and the United Kingdom. However, supervision over monetary policy may be limited to procedural matters such as collection of data from all regions (United Kingdom). In Hungary, monetary policy decisions are not subject to review by the Supervisory Board. In some cases, the supervisory board members are appointed by the parliament and their tenure coincides with the political election cycle (Iceland, Norway, and Sweden).

In a few cases, there exists only a single board which functions as the policy board, supervisory board and management. As shown in Table (8), this is the case in countries such as Brazil, Czech Republic, and Mexico. Usually, supervisory boards are separate from management and have external representation.

Monetary Policy Board

Policy boards operate with clearly specified decision-making and operating procedures. Most committees adopt a voting system (Table 9). Meetings are held on the basis of a prescheduled calendar. The frequency of meetings—usually monthly, sometimes bi-weekly—depends upon factors such as frequency of data availability and feasibility of meeting a large group especially when they are engaged on a part-time basis. More frequent meetings risks putting too much attention to noisy data, although members are also more alert to developments. Hence, regardless of meeting frequency, policy decisions are generally made on a quarterly basis. Financial incentives are generally not provided for meeting monetary objectives. Reappointment prospects and publication of voting records are expected to provide sufficient incentives to meet the institutional objectives.

No clear trend emerges with respect to the balance between external and internal membership (Table 9). The number of committee members range between five and ten. They may be appointed on a part time or full time basis. The balance between internal versus external membership is considered less important when minutes and dissenting votes are publicly disclosed so that members are individually accountable. A committee comprised of insiders may be more effective in retaining coherence in decision-making, communication and accountability, particularly during periods of transition and in smaller countries where competent experts without conflicts of interest may be in short supply.

The appointment of external members seeks to bring in diverse perspectives and political legitimacy especially if the central bank has more autonomy. Diverse membership is expected to bring a more impartial outlook, raise controversial issues for debates which help to bring credibility, and build a constituency for low inflation. Sectoral representation is also sometimes sought. But there is also a view that geographic representation is unnecessary if wide ranging regional and local data is available. Sectoral, political and special interest representation is usually avoided to minimize conflicts. Such appointments may be more common when the central bank has goal autonomy and needs political legitimacy.

Table 8. Relations Between Policy, Supervisory, and Management Board, end–2003

Country	**Supervisory function(*)**	**Monetary Policy function**	**Management**	**Other Boards**
Australia		Reserve Bank Board /1,2	Governor	Payment System Board
Brazil		Board of Directors (COPOM) /2	Board of Directors /2	
Canada	Board of Directors /1,2 Executive Committee /1,2	Governor	Governing Council	
Chile		Board /1,2	Board /1,2	
Colombia		Board of Directors /1	Governing Board /1,2	
Czech Republic		Bank Board 2/	Bank Board /2	
ECB		Governing Council /1,2	Executive Board /2	
Hungary	Supervisory Board	Monetary Council /1,2	Board of Directors /2	
Iceland	Supervisory Board	Board of Governors /2	Board of Governors /2	
Israel		Governor		Advisory Council /1
Korea, Rep. of		Monetary Policy Committee /1,2	Executive Officers	
Mexico		Board of Governors /2	Board of Governors /2	
New Zealand	Board of Directors /1	Governor	Governor	
Norway	Supervisory Council	Executive Board /1,2	Governor	
Peru		Board of Directors /1,2	General Manager	
Philippines		Monetary Board /2	Monetary Board /2	Advisory Committee
Poland		Monetary Policy Council /1,2	Management Board /1,2	
South Africa		Monetary Policy Committee /2	Board of Directors /1,2	
Sweden	General Council	Executive Board /2	Executive Board /2	
Thailand	Court of Directors /1,2	Monetary Policy Committee /1,2	Governor	
United Kingdom	NedCo (a sub-committee of the Court of Directors) /1	Monetary Policy Committee /1,2	Governor and Executive Team	

Source: Central bank legal texts and websites.

(1) denotes external members

(2) denotes governor is the chair

(*) where a separate board exists

Table 9. Internal Decision-Making, end–2003

Country	Individual	MPC or Board	Committee Advisory	Number of Members: Internal	Number of Members: External	Decision-making: Voting	Decision-making: Consensus
Australia		Reserve Bank Board		2	7	X	
Brazil		COPOM (Monetary Policy Committee which comprises of executive board)		8	0		X
Canada	Governor						
Chile		Council (Board)		2	3	X	
Colombia		Board of Directors		6	1		
Czech Republic		Bank Board		7	0	X	
ECB		Governing Council		6		X	
Hungary		Monetary Council		4-6	1-3	X	
Iceland		Board of Governors		3	0	X	
Israel	Governor		Advisory Committee				
Korea, Rep. of		Monetary Policy Committee		2	5	X	
Mexico		Board of Governors		5	0	X	
New Zealand	Governor		Monetary Policy Committee				
Norway		Executive Board although may delegate to Governor		2	5	X	
Peru		Board of Directors		1	6	X	
Philippines		Monetary Board	Advisory Committee (comprising of Governor, Deputy Governors for the Monetary Stability sector and Supervision and Examination sector, Directors of Research and Treasury)	7	0	X	
Poland		Monetary Council		1	9	X	
South Africa		Monetary Policy Committee		8	0	X	
Sweden		Executive Board		6	0	X	
Thailand		MPC					X
United Kingdom		Monetary Policy Committee		5	4	X	

Source: Central bank legal texts and websites.

To avoid conflict of interest and retain independence, members are restricted from certain activities or affiliations outside the central bank. Generally, they include restrictions on involvement in financial institutions, political activity and government service (Table 9). Some countries, however, only limit affiliations with those financial institutions that are under financial difficulties. Members may not be engaged in outside activities for financial gain. Sometimes, members may not be involved with a financial institution for a certain period after the end of their tenure.

IV. ACCOUNTABILITY

A. Oversight of Governing Bodies

With increased autonomy comes greater need for accountability. Increased accountability has the added advantage of insulating the central bank from outside pressure. There is a clearly defined, and often, a single authority to whom central banks are accountable for their monetary policy decisions. This may be the legislature (Colombia, Poland, Hungary, Iceland, Sweden), or their representatives in the supervisory council (Iceland, Sweden); or the government, which may be either to the minister or directly to the Prime Minister (Canada, United Kingdom). In some countries, the central bank reports to both agencies (Australia, Chile, Israel, Mexico, Norway, New Zealand, Philippines, and South Africa). The central bank submits regular reports to the supervisory bodies. In addition, the governor or the board may be required to appear in Parliament or a subcommittee on a regular basis (Australia, Chile, Hungary, South Africa, Sweden), or when summoned by the Parliament/Congress (Colombia, Mexico, and the United Kingdom).

As part of the accountability framework, the guidelines on inflation targeting framework or the agreement between the government and central bank requires an explanation in case of a target breach (Table 2). Central banks need to submit in an open letter to the government or include an explanation in its monetary policy statement. The explanation would include reasons why the target could not be achieved, the measures to be taken and when they expect the target to be achieved (United Kingdom, Brazil, Iceland, New Zealand, and South Africa). Target breaches may also require an appearance at the legislature (Sweden).

B. Transparency and Reporting Requirements

Transparency and timely public communication are an integral part of the inflation targeting regime because of its role in policy credibility and setting of inflation expectations.[11] Public accountability is also ensured through high degree of transparency by providing the ability to monitor central bank performance. Central banks publish an explicit target, the underlying price index, the time horizon in which the target is to be achieved and escape clauses allowing deviations in the target. Inflation reports are published which include an ex-post assessment of monetary policy performance and a forward-looking component that includes an inflation forecast, assumptions, factors that motivate a change in the monetary policy stance, risks and reasons for potential target breach. The information content, while seeking to maximize disclosure, should not try to promote a perception of unrealistic precision. Due to lags in transmission, central banks need to take a forward-looking stance which may not be easily understood by the public at large. Other medium of communication include press releases, research publications, central bank management speeches, and meeting minutes released over media briefing or websites (Table 10).

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[11] For further details in transparency practices in inflation targeting countries, see Carare, Schaechter, Stone, and Zelmer (2002).

Table 10. Accountability and Transparency, end–2003

Country	Reports to	Frequency of Meeting	Decisions, Deliberations, Minutes	
			Public Availability	**Time lag**
Australia	Government, Legislature	11 times per year	Decisions and explanations	1 day
Brazil		Monthly over 2 consecutive days	Minutes containing decisions and dissent, if any, but no detailed deliberations	8 days
Canada	Government	Preannounced schedule for interest rate changes 8 times a year;	Includes decision and explanation through a press release	Immediately
Chile	Government, Legislature	Monthly	Decisions and explanations through press release	Immediately
Czech Republic	Legislature	Monthly	Minutes containing decisions, deliberations, views or explanations	8 days
Hungary	Legislature	Bi-weekly	Decisions	Immediately
Iceland	Government	Irregular, No preannouned schedule	Decisions and basis for interest rate decision in a press release; no minutes published.	Immediately
Korea, Rep. of	Legislature	Monthly meeting	Policy decision and explanations in press release and conference by governor; detailed discussions in monthly bulletins	Immediately after meeting; bulletins have a 3 month lag
Mexico	Legislature, Government	Twice a month, based on a preannounced schedule	Policy decisions and explanations through a press release	After the second meeting of the month
New Zealand	Government, Legislature	OCR reviewed 8 times a year; preannounced schedule	Includes decision and explanation through a press release	
Norway	Government, Legislature	Monetary policy meetings every six weeks although they meet every three weeks	Decision and basis for interest rate decision via comprehensive press release; no minutes published	Press conference by Governor immediately following board meeting
Philippines	Legislature and President	Every four weeks as per a preannounced schedule. Advisory board meets for 2 days before Monetary Board (MB) meeting and prepares policy paper for MB's consideration.	Press statement Highlights of the MB meeting on monetary policy issues	Press statement is released immediately while the highlights are released after six weeks.
Poland	Legislature	Monthly meetings	Positions of council members during votes will be published in the Court and Commercial Gazette	Voting records: After 6 weeks but before 3 months
South Africa	Government, Legislature	Quarterly meeting over 2 days	Decisions, explanations	
Sweden	Legislature	Monetary policy meetings held 8 times a year as per a pre-announced schedule;	Decisions, explanations	Decisions: 1 day lag; minutes with a 2 week lag
Thailand	Government	Every six weeks	Decisions and explanations	Published in website same day
United Kingdom	Government	Monthly	Decisions, voting records	Decisions announced immediately by wire service and press release; minutes after 2 weeks

Source: Central bank legal texts and websites.

There are, however, concerns that excessive transparency, such as publishing of voting records may infringe upon the central bank's operational independence. Disclosure of the individual judgments behind the policy decision risk creating more confusion and may subject members to undue pressure, especially if the members are nominated from political parties, or, in a federal system, from different subnational governments. In fact, most countries only release the decision and explanation immediately and do not publish the minutes. ECB's charter does not allow for publication of the proceedings of the meetings. The detailed discussions, if released, are done so only with a time lag of 1 ½ to 3 months. Individual positions of members are disclosed only by a few countries (Rep. of Korea, Poland, and the United Kingdom.), as required by law.

The timing of information disclosure is an important consideration and most decisions are released with an appropriate delay. In the United Kingdom, the lag period for releasing minutes has been shortened which has helped the public to pay more attention to the decisions as well as made the member's reported policy stance more reflective of their prevailing view, especially while answering to the Treasury committee.

V. Other Issues

A. Information Collection

Given the importance of credibility and data reliability, legal provisions are in place to authorize and ensure credibility of data collection and management.[12] In many emerging markets, separate economic analysis and data management units have been developed for more effective monitoring and model building. Some countries which are faced with credibility issues have used an independent agency for collection and compilation of data. The price index that is produced by an external independent agency may also be selected as the target index. This is particularly the case when such an index is already seen as a credible one and the government index has a history of revisions. To further enhance the assessment of long term credibility of monetary policy stance, surveys of inflation expectations from different agents, businesses and organizations may need to be commissioned to agencies at arms length from the bank (Svensson, 2001).

VI. Conclusion

This paper has tried to identify some common practices on governance structures in inflation targeting central banks. To a large extent, governance is designed on the principles of central bank autonomy and accountability, but even among these countries, elements of the framework vary considerably. While most do have a primary objective of price stability, only a few countries explicitly mention the adoption of a numerical inflation target in the law.

[12] See Carson, Enoch, and Dziobek (2002) for a discussion on statistical requirements for inflation targeting.

Inflation targeting is formalized in agreements between the central bank and government, a regulation, or a statement announcing the targets.
Central banks generally have instrument autonomy. Government is responsible for setting the target either independently or jointly with the central bank. This is particularly the case for developed economies in the survey. In these countries, government may also have an override provision for a certain time period, in case of policy differences, that is subject to public disclosure and an appeals process.

Central banks among the surveyed emerging market economies tend to have more dejure target autonomy, sometimes enshrined in the constitution, and the policy boards have less external representation. This is possibly a reflection of historical trends towards monetization of deficits, the need to gain credibility by increasing autonomy from government, and difficulties in identifying candidates for membership without a potential conflict of interest. In many of these countries, the monetary policy board also serves as a management board with executive functions. Public accountability is ensured through high transparency.

Monetary policy decisions are usually taken by committees, either by the board of directors or by a separate monetary policy committee that includes external members. In cases where the sole decision-making authority lies with the governor, an advisory committee and a stronger monitoring role for the board also exist.

High transparency and public accountability are key in inflation targeting regimes especially since they are crucial for anchoring public expectations of the inflation process. Although the decision-making process is widely publicized with descriptions of the deliberations and decisions, publishing voting records is still uncommon. This limits individual accountability, but it also protects members from undue pressures. To maintain accountability, target breaches need to be publicly explained in accordance with the terms set out when determining the target.

REFERENCES

Alexander, William, Tomas Baliño, and Charles Enoch, 1995, *The Adoption of Indirect Instruments of Monetary Policy*, Occasional Paper No. 126 (Washington: International Monetary Fund).

Allen, Bill, and Gabriel Sterne, 2001, "The Evolution of Monetary Framework Design in the 1990s," *Central Banking*, Vol. XI, No. 3, pp. 34–42.

Barro, Robert, 1995, "Inflation and Economic Growth," *Bank of England Quarterly Bulletin*, Vol. 35 (May), pp. 166–76.

Campillo, Marta, and Jeffrey Miron, 1997, "Why Does Inflation Differ Across Countries?" in *Reducing Inflation: Motivation and Strategy*, ed. by Christina Romer and David Romer (Chicago: University of Chicago Press), pp. 335–57.

Carare, Alina, Andrea Schaechter, Mark Stone, and Mark Zelmer, 2002, "Establishing Initial Conditions in Support of Inflation Targeting," IMF Working Paper 02/102 (Washington: International Monetary Fund).

Carere, Alina, and Mark Stone, 2003, "Inflation Targeting Regimes," IMF Working Paper 03/9 (Washington: International Monetary Fund).

Carson, Carol, Charles Enoch, and Claudia Dziobek, eds., 2002, *Statistical Implications of Inflation Targeting: Getting the Right Numbers and Getting the Numbers Right*, (Washington: International Monetary Fund).

Cottarelli, Carlo, and C. Giannini, 1997, *Credibility Without Rules? Monetary Frameworks in the Post-Bretton Woods Era*, IMF Occasional Paper No. 154 (Washington: International Monetary Fund).

Cukierman, Alex, 1992, *Central Bank Strategy, Credibility and Independence: Theory and Evidence*, (Cambridge, Massachusetts: MIT Press).

_________, Geoffrey Miller, and Bilin Neyapti, 2001 "Central Bank Reform, Liberalization and Inflation in Transition Economies: An International Perspective," CEPR Discussion Paper No. 2808 (London: Centre for Economic Policy Research).

Fischer, Stanley, 1995, "Modern Approaches to Central Banking," NBER Working Paper No. 5064 (Cambridge, Massachusetts: National Bureau of Economic Research).

Fuhrer, Jeffrey, 1997, "Central Bank Independence and Inflation Targeting: Monetary Policy Paradigms for the Next Millennium?" *New England Economic Review*, January, pp. 19–36.

Goodhart, Charles, 2000, "The Role of the Monetary Policy Committees: Strategic Considerations," in *Monetary Policy Frameworks in a Global Context*, edited by Lavan Mahadeva and Gabriel Sterne, (London: Routledge).

Lybek, Tonny, 1998, "Elements of Central Bank Autonomy and Accountability," MAE Operational Paper 98/1 (Washington: International Monetary Fund).

_________, 1999, "Central Bank Autonomy, and Inflation and Output Performance in the Baltic States, Russia, and Other Countries of the Former Soviet Union, 1995–97," IMF Working Paper 99/4 (Washington: International Monetary Fund).

Lybek, Tonny,and J. Morris, 2004, "Governing Bodies of Central Banks: A Survey of Boards and Managements," IMF Working Paper 04/226 (Washington: International Monetary Fund).

Mahadeva, Lavan, and Gabriel Sterne, 2000, "Monetary Policy Framework in A Global Context," Mimeo, Center for Central Banking Studies (London: Bank of England).

Mishkin, Frederic and Klaus Schmidt-Hebbel, 2002, "A Decade of Inflation Targeting in the World: What Do We Know and What Do We Need to Know," in *Inflation Targeting: Design, Performance, Challenges*, ed. by Loayza, N., and R. Soto (Santiago: Central Bank of Chile), pp. 171–219.

Morande, Felipe, 2002, "A Decade of Inflation Targeting in Chile: Developments, Lessons and Challenges," in *Inflation Targeting: Design, Performance, Challenges*, edited by Loayza, N. and Soto, R., Central Bank of Chile.

Posen, Adam, 1993, "Why Central Bank Independence Does Not Cause Low Inflation: There is No Institutional Fix for Politics," in *Finance and the International Economy,* ed. by Richard O'Brien, (New York: Oxford University Press), pp. 41–65.

_________, 1995, "Declarations Are Not Enough: Financial Sector Sources of Central Bank Independence," in *NBER Macroeconomics Annual, 1995*, ed. by Ben Bernanke, and Julio Rotemberg (Cambridge, Massachusetts: MIT Press), pp. 255–74.

Sherwin, M., 2000, "Institutional Frameworks for Inflation Targeting," BIS Review No. 100 (Basle: Bank of International Settlements).

Siklos, Pierre, 2002, "Frameworks for the Resolution of Government-Central Bank Conflicts: Issues and Assessment," (unpublished; Waterloo, Ontario: Wilfrid Larier University).

Svensson, Lars, 2001, "Independent Review of the Operation of Monetary Policy in New Zealand: Report to the Minister of Finance," (unpublished; Stockholm: Stockholm University).

Walsh, Carl, 1995, "Optimal Contracts for Central Bankers," *The American Economic Review*, Vol. 85, March, pp. 150–67.