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Greater Monetary Policy Transparency for the G3: Lessons from Full-Fledged Inflation Targeters

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IMF Working Paper

Monetary and Financial Systems Department

**Greater Monetary Policy Transparency for the G3:
Lessons from Full-Fledged Inflation Targeters¹**

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Abstract

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The experience of full-fledged inflation targeting (FFIT) countries is used here to shed light on the costs and benefits of greater monetary policy transparency for the G3. For the United States and the euro area, a hypothetical adoption of FFIT would incur a cost of less discretion while gaining the benefit of locking in a highly credible framework. The adoption of FFIT by Japan would create the risk of a further hit to credibility if policy was not able to end deflation. In practice, the G3 are already moving toward a new monetary regime that resembles FFIT in transparency, but not in accountability.

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INTRODUCTION

The United States, Japan and the euro area are taking steps toward greater transparency in monetary policy (e.g., Truman, 2003; Goodfriend, 2003; Kieler, 2003). The U.S., Japan and the euro area—which are referred to here as the “G3” economies—practice an informal variant of inflation targeting which has been referred to as “covert” (Mankiw, 2002), “eclectic” (Carare and Stone, 2003), “just do it” (Mishkin, 1999), or “don’t ask, don’t tell” (Goodfriend, 2003) inflation targeting. The term eclectic inflation targeting (EIT) will be used here because the G3 certainly have an inflation target in mind, but their institutional frameworks have important differences. In particular, the U.S. has no quantitative target whereas the European Central Bank (ECB) and Japan have “quasi-quantitative” targets, and the transparency of the G3 monetary regimes varies considerably.

Full-fledged inflation targeting (FFIT) countries also target inflation but have more uniform frameworks defined by transparency and accountability relative to the G3. FFIT is a clear commitment to a quantitative inflation target and the institutionalization of this commitment in the form of a transparent monetary framework that fosters accountability of the central bank to the target. FFIT was first adopted by New Zealand and now at least 20 countries practice this regime.

This paper taps the international experience with FFIT to shed light on the costs and benefits of greater monetary policy transparency for the G3. Direct analysis of the costs and benefits of the marginal increases in monetary policy transparency for the G3 is quite a challenging task and will not be attempted here. Rather, this paper aims to exploit the 100 years of country experience with FFIT to draw lessons for the G3. The approach is to think through *a hypothetical switch from EIT to FFIT* by the G3 and use this thought exercise to gain a better understanding of the costs and benefits of greater monetary policy transparency by the G3.

The paper concludes that the costs and benefits posed by a hypothetical move from EIT to FFIT for the G3 would depend on the initial level of credibility. The U.S. and the euro area have a high degree of credibility already. For them the adoption of FFIT would incur a cost of a loss in policy discretion (at least in the short run) against the benefit of locking in their low inflation credibility against future events. Japan is in a deflationary liquidity trap. For Japan, therefore, the choice of a FFIT entails weighing the potential benefit of a more rapid end to deflation against the potential further hit to credibility from failing to end deflation in the context of a liquidity trap. In addition, there are risks arising from the introduction of new and unknown monetary instruments to end deflation.

The hypothetical switch to of FFIT also raises two key issues regarding the move to greater transparency by the G3 countries. First, how much scope for discretion, if any, would be lost by greater transparency? Second, how would the G3 countries be held accountable for numerical inflation targets in the absence of most of the elements of the FFIT framework? Both of these issues warrant further analysis.

This paper is organized as follows. The next section provides a brief and selected history of FFIT. Section III compares and contrasts the institutional monetary policy framework of EIT and industrial FFIT countries. The following section assesses the differences between EIT and industrial FFIT countries. Section V discusses financial stability and EIT and FFIT. Country-specific issues are addressed in Section VI, and Section VII concludes.

I. A BRIEF OVERVIEW OF THE FFIT REGIME

Generally, a monetary policy regime “encompasses the constraints or limits imposed by custom, institutions and nature on the ability of the monetary authorities to influence the evolution of macroeconomic aggregates” (Bordo and Schwartz, 1995). A nominal anchor is a nominal variable that serves as a target for monetary policy and ties down inflation expectations and price stability. The move away from static gold anchors to nominal anchors involving dynamics between policymakers and the private sector shifted the focus of modern macroeconomics to the challenges posed by forward-looking policy commitments. Over time, FFIT has emerged as the most popular way to address these problems (e.g., Bernanke and others, 1999; Svensson, 1999; Svensson and Woodford, 2003).

Two inherent problems of forward-looking commitments are addressed by inflation targeting. The first is the “inflation bias” arising from the time consistency problem: since central banks have not only inflation but also output in the objective function they have incentive to exploit market imperfections and temporarily raise output above its equilibrium level by inflating in the short-run (Barro and Gordon, 1983; Kydland and Prescott, 1977). Early solutions to the time consistency problem included the conservative central banker (Rogoff, 1985) and direct incentives for central banks (Walsh, 1995). Over time the increased transparency and accountability of central banks has strengthened the commitment to inflation targeting. Accountability has taken the form of explicit oversight by the government or implicit political pressure. The second problem addressed by inflation targeting is “output stabilization bias” caused by discretionary monetary policy and forward-looking private sector inflation expectations (Woodford, 1999). This problem can arise even in the absence of the market imperfections that lead to the time consistency problem. A credible forward-looking commitment to an inflation target will smooth inflation expectations and thereby stabilize output.

Although there are no hard and fast preconditions for the adoption of FFIT there is broad agreement on the ingredients that point the way to success for FFIT (Bernanke and others, 1999; Carare and others, 2002). These include: (i) a strong fiscal position and well-established macroeconomic stability; (ii) a well-developed financial system; (iii) central bank instrument independence and a mandate to achieve price stability; (iv) reasonably well understood channels between policy instruments and inflation; and (v) a sound methodology for devising inflation forecasts.

New Zealand pioneered FFIT in 1989 and today at least 20 countries operate under this regime.² These countries cover a wide spectrum. These include seven industrial countries and thirteen emerging market countries. Other emerging market countries are considering moving to FFIT. Since emerging market countries often adopt FFIT from a position of weakness rather than strength (Schaechter and others, 2000; Mishkin and Schmidt-Hebbel, 2001) this paper compares G3 countries only with industrial FFIT (IFFIT) countries.

II. DIFFERENCES BETWEEN THE EIT AND IFFIT MONETARY POLICY FRAMEWORKS

The mix of commitment versus discretion is the main difference in the monetary policy framework of IFFIT and EIT countries (Figure 1). Measures of commitment (“focus on inflation”) versus discretion self-reported by central banks are available in Fry and others (2000).³ The indicators are valued from 0 to 100 with 100 denoting the strongest commitment and most discretion. In Figure 1 the IFFIT countries are toward the upper left, indicating that they focus on inflation and at the same time exercise little discretion. Conversely, the EIT countries report that they exercise high discretion and focus less on inflation, thus they are in the lower right quadrant of the figure.

The strong commitment of the IFFIT countries to their inflation target is institutionalized in the transparency and accountability of their monetary policy framework. Transparency is crucial because under FFIT the inflation forecast is the effective intermediate target owing to the lag between a change in policy and its impact on inflation. Transparency helps the public monitor the adherence of the central bank to the inflation objective. Accountability ensures that the central bank is held responsible for its commitment to the inflation target.

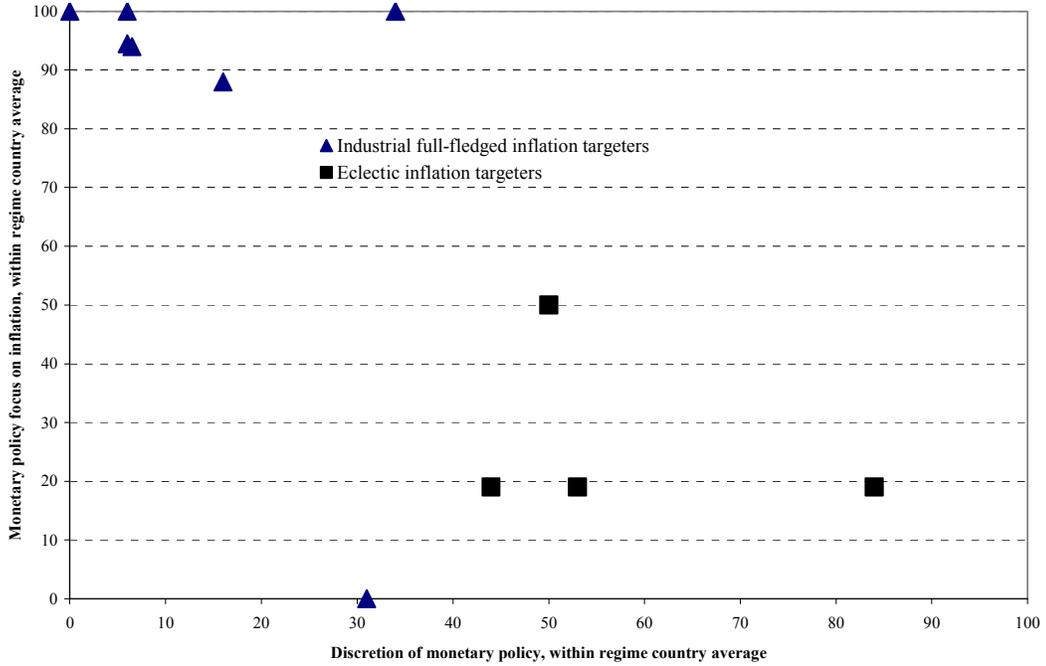
The transparency of IFFIT countries is in their announcement of numerical inflation targets over a specified horizon (Table 1). In addition, all IFFIT central banks produce a detailed inflation forecast.

The G3 countries have less transparent frameworks than the IFFIT countries (Table 2). The ECB and the Bank of Japan (BoJ) have “almost-quantitative” inflation targets and the Federal Reserve Bank does not state a numerical target. None of the G3 publishes detailed inflation forecasts, although the ECB and BoJ have begun to provide more discussion of the inflation outlook.

² Truman (2003), Bernanke and others (1999) and Mishkin and Schmidt-Hebbel (2001) provide broad reviews of FFIT.

³ These data were collected in 1999, so there may be some discrepancies between the data and actual objectives today; in particular, Norway, the country on the horizontal axis, formally adopted FFIT in March 2002. These data are not available for the ECB.

Figure 1. EIT and IFFIT Countries, Commitment versus Discretion of Monetary Policy



Source: Fry and others, 2000

Table 1. IFFIT Countries, Transparency Aspects of Monetary Framework

Country	Objective	Inflation target	Transparency/Communication
Australia	Currency stability; maintenance of full employment, general welfare and prosperity of the people of Australia	On average 2-3 percent per annum over the medium term; subject to that, to encourage the strong and sustainable growth in the economy.	Monthly RBA Bulletin, quarterly statements on monetary policy, semi-annual appearance of governor before parliamentary committee.
Canada	Regulate credit and currency; control and protect external value of national monetary unit and mitigate fluctuations in level of production, trade, prices and employment	12-month CPI target range of 1-3 percent; monetary policy objective aimed to 2 percent target midpoint over the medium term	Semi-annual monetary policy report with interim quarterly updates; semi-annual statements by the governor of the Bank of Canada to the Senate Banking, Trade and Commerce Committee and the House of Commons Finance Committee; regular speeches by the Bank of Canada's governor to various economic fora.
Iceland	Price stability.	2.5 percent for 12-month CPI +/- 1.5 percent band	Quarterly report on monetary developments and measures
Sweden	Price stability; promote a safe and efficient payment system	2 +/- 1 percent one to two years ahead	Semi-annual report to the Parliamentary Committee on Finance plus governor's appearance once a year (including target misses); quarterly inflation reports
New Zealand	Price stability	1-3 percent on average over the medium term	Monetary policy statement three times a year
Norway	Currency stability (national and international value)	2.5 percent over time (2 yr horizon);	Inflation report published three times a year; Every session, ministry sends a communication to the Storting on activities of the Norges Bank
United Kingdom	Price stability; subject to that, support economic policies of government including growth and employment	2.5 percent RPI excluding mortgage interest rates over a two year horizon	Quarterly inflation report; regular reports to Parliament Treasury Select Committee

Source: Tuladhar, 2003.

Table 2. EIT Country Central Banks, Transparency Aspects of Monetary Framework

Central bank/ Country	Objective	Inflation target	Transparency/Communication
ECB	“The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, ESCB shall support the general economic policies in the Community...”	Maintain inflation rates close to 2 percent over the medium term.	Monthly Bulletin
Japan	“Currency and monetary control shall be aimed at, through the pursuit of price stability, contributing to the sound development of the national economy.”	The Bank of Japan says it will continue its monetary easing measures until the CPI registers stably a zero percent or an increase year on year	Outlook and Risk Assessment of the Economy and Prices (Monthly); semi-annual appearance of Policy Board members before the Diet.
United States	[conduct policy] “commensurate with the economy’s long run potential to increase production, so as to promote effectively the goals of maximum employment, stable prices, and moderate long-run interest rates”	None	Semi-annual Monetary Policy Reports to Congress; semi-annual appearance of Chairman before congressional committee. Release of a statement on the day of a FOMC decision, and publication of the minutes of the FOMC decision (with a 1-month delay).

Source: Central bank and government websites.

Formal accountability of the central bank for adherence to the inflation target is a key element of all the IFFIT monetary frameworks. Formal accountability is made possible by the combination of transparent inflation targets and explicit government influence over the central bank (Table 3). Most have goal dependence in the form of joint announcement of the inflation target by the central bank and the government, while the government alone announces the target in two cases. Further, in most IFFIT countries the government has scope to publicly override central bank decisions.

The G3 central banks have considerably fewer institutional elements in support of accountability of the central bank with respect to an inflation target vis-à-vis the IFFIT countries (Table 4). This is not to say that the G3 central banks are not accountable for monetary policy. The point here is that they lack a formal and explicit mechanism for rewarding or punishing the central bank for adherence to an inflation target. In particular, none of the G3 central banks are subject to an override provision or any formal government oversight.

In short, the G3 have somewhat less transparent and much less accountable institutional monetary policy frameworks compared to IFFIT countries. Since two of the three G3 countries have almost-quantitative inflation targets, in transparency the G3 are not too far from the IFFIT countries. Moreover, the monetary policy frameworks of G3 countries are becoming more transparent. In contrast, G3 countries are clearly less accountable than the IFFIT countries.

III. DIFFERENCES BETWEEN EIT AND IFFIT COUNTRIES

The “revealed preference” of the G3 for EIT is attributable to the greater discretion of this regime compared to FFIT. EIT central banks are not explicit in their commitment to inflation because this would reduce flexibility with respect to other objectives, such as output stability, without an offsetting gain in price stability (Jensen, 2001). EIT countries are also different from inflation targeting “lite” developing countries that also have an inflation objective but are unable, as opposed to unwilling, to adopt FFIT because they lack the initial conditions for the credible adoption of this regime (Stone, 2003).

The revealed preference of the G3 for EIT rather than FFIT reflects their high degree of credibility with respect to price stability. The credibility of the G3 versus that of the industrial FFIT countries can be measured using the actual rate of inflation. Countries with relatively low and stable rates of inflation are considered here as having a more credible monetary policy. The data are annual changes in the CPI index during the period 1998–2003.

The U.S. and the euro area have more stable inflation, as measured by the standard deviation and range, than any of the IFFIT countries (Table 5). In addition, median inflation for these two economies is lower than the median for the IFFIT countries.

Table 3. IFFIT Countries, Accountability Aspects of Monetary Framework

Country	Policy Decision Making	Target set	Relation of Decision Making Body with Government	Government Override Provision	Conflict made public
Australia	Reserve Bank Board	Jointly through an agreement between Treasurer and Governor - designate	Required to inform government from time to time on monetary and banking policies which is done through monthly meetings between Gov/Dy Gov and Treasurer, plus annual report to Treasury and Parliament. Govt reserves right to comment on monetary policy but will not make announcement of policy adjustment or stances	Yes. After board presents a statement expressing difference of opinion and government accepts responsibility	Yes
Canada	Governor (appointed by Board of Directors)	Jointly through an agreement for five years	Minister and Governor will consult regularly on monetary policy and on its relation to general economic policy.	Yes, government directive	Yes (Canada Gazette)
Iceland	Board of Governors	Joint central bank sets target but with the consent of the Prime Minister provisioned for in the central bank act. Target breaches to be explained to the government publicly.	Internal rules on preparation of, arguments for and presentation of monetary policy decisions by Board of Governors is approved by the Supervisory board (7 member board of political appointees with proportional representation). Supervisory board also looks at bank organization, operating budget, internal audit; accountable to PM (not minister), governors can attend supervisory board meetings but must leave if the board so decides.	No	No
Sweden	Executive Board (Governor, 5 Deputy Governors)	Riksbank but must inform the government (minister) in advance	May not seek or take instructions for fulfilling monetary policy duties but shall inform government well in advance; (Chair and Vice-chair of Governing Council may participate in Executive board meeting but not vote; can propose to government for statutory amendment of government decision.	No	No
New Zealand	Governor	Jointly, through a Policy Targets Agreement which is set for governor's term for 5 years which can be revised by mutual consent	Shall consult and give advice to the government; submit policy statements to the minister and Parliament periodically (not exceeding six months). Governor's performance is reviewed by the Board of Directors. Minister has power to fix exchange rates and if this is inconsistent with the policy targets, governor may advise in writing for new policy targets. If the direction on foreign exchange is inconsistent with the monetary policy objective, the governor can advise, in writing, that direction will not be effected.	Yes; the Governor-General on the advice of the Minister, can direct the Bank to formulate and implement monetary policy for any economic objective, other than price stability	Yes (in gazette and House of Representatives)

Table 3. IFFIT Countries, Accountability Aspects of Monetary Framework (cont.)

Country	Policy Decision Making	Target set	Relation of Decision Making Body with Government	Government Override Provision	Conflict made public
Norway	Executive Board (Gov, Dy Gov, 5 external members)	Government (stipulated in the regulation and submitted to Storting)	Bank is owned by the state; before the Bank makes a decision of special importance, the matter is submitted to the ministry. Governor and Deputy Governor obliged to attend Supervisory Council meetings. Budget approved by Supervisory Council (15 member committee elected by Storting) and forwarded to the ministry; Supervisory Council issues a statement on the minutes of the Exec. Board meeting, which is forwarded to the ministry, King and Storting.	Yes. The Council of State may adopt resolutions regarding the operations of the Banking the form of general rules or instructions. The Bank shall be given the opportunity to state its opinion before such resolutions are passed.	No. But Storting is notified of the decision.
United Kingdom	Monetary Policy Committee	Government. Target miss of +/- 1% requires an explanatory letter to the Treasury	Accountable to government for which Oversight of MPC is done by NedCo, a subcommittee of the Court of Directors, comprising of 16 non-executive directors. Submits monthly report, reviews performance, procedures and terms and conditions of their 4 appointees in MPC and ensures bank is collecting regional and sectoral information; Treasury attends MPC meeting in a non-voting capacity	Yes, in exceptional national circumstances	Yes and presented in Parliament

Source: Tuladhar, 2003.

Table 4. EIT Country Central Banks, Accountability Aspects of Monetary Framework

Central bank/ Country	Policy Body	Target set	Relation of Decision Making Body with government/supervising authority	Government override provision	Conflict made public
ECB	Governing Council	Central bank	The ECB is not subject to formal oversight.	None	No
Japan	Policy Board	Central bank	Government officials may attend Policy Board meetings but they do not have veto power.	None	No
United States	Federal Open Market Committee	--	The FRB is not subject to formal oversight but the Chairman is subject to public questioning by members of congress during his semiannual appearance.	None	No

Source: Central bank and government websites.

Table 5. G3 and IFFIT Countries, CPI Inflation, 1997–2002

	Median	Standard Deviation	Range
<u>G3 economies</u>			
Euro area	2.01	0.69	2.62
Japan	-0.40	1.08	4.13
U.S.	2.21	0.77	2.69
<u>Industrial FFIT countries</u>			
Australia	2.16	1.94	6.41
Canada	1.90	0.91	3.76
Iceland	3.37	2.37	8.61
New Zealand	1.74	1.18	4.47
Norway	2.34	0.78	3.92
Sweden	1.01	1.10	4.17
United Kingdom	<u>2.60</u>	<u>0.91</u>	<u>3.51</u>
Median	2.16	1.10	4.17

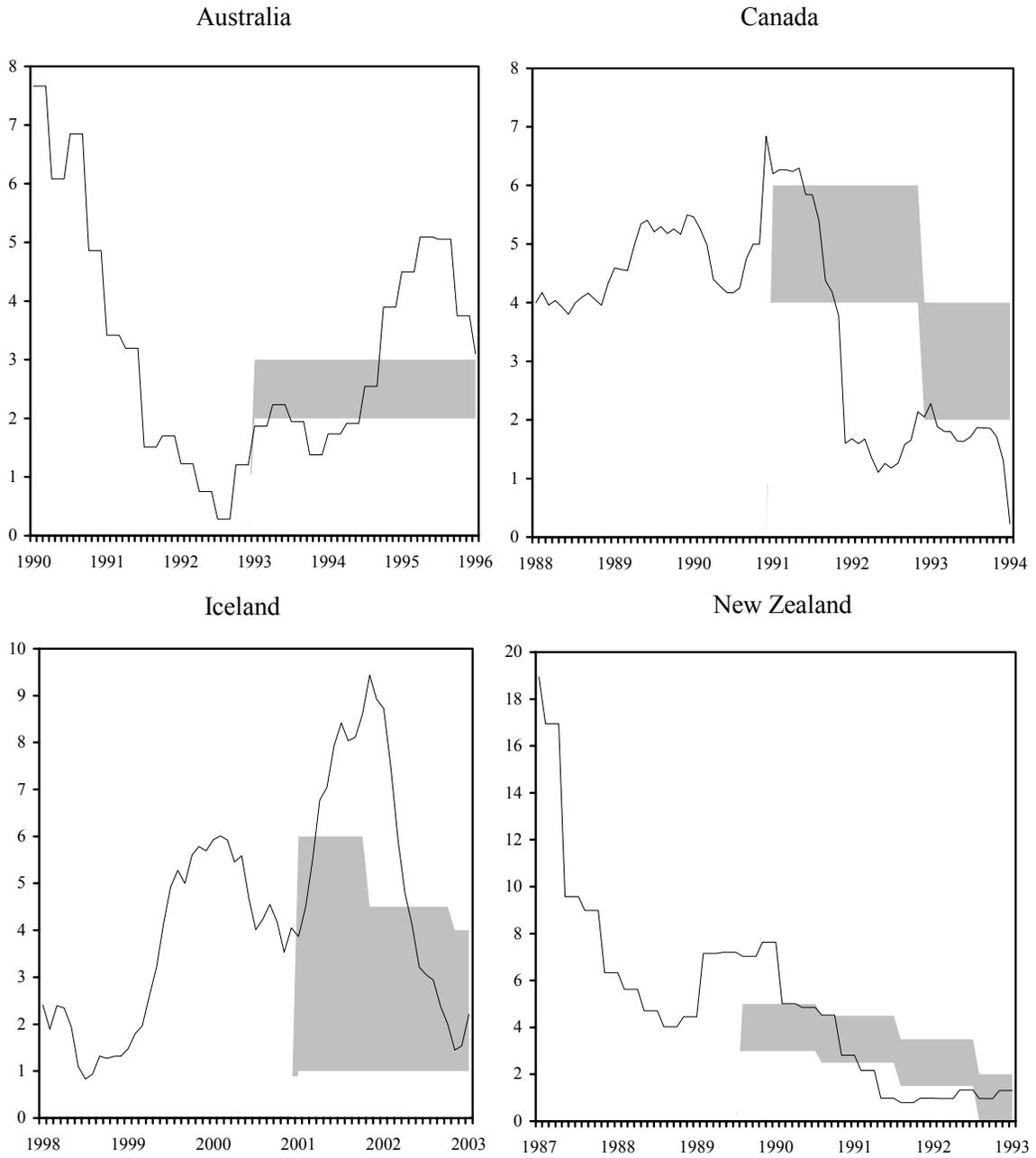
Sources: *International Financial Statistics*.

Japan, of course, is distinguished by its deflation over the past several years. Persistent deflation can be seen as reducing the credibility of monetary policy owing to its costs, including sharp reductions in the value of collateral which can freeze up bank lending, increases in unemployment due to the downward rigidity of nominal wages, and ineffective monetary policy arising from the combination of zero nominal interest rates and a negative output gap (Kumar and others, 2003).

The IFFIT countries used the adoption of FFIT to disinflate or lock in low inflation at the beginning of this regime. This is suggested by contrasting the inflation performance of the IFFIT countries before and after the year that they adopted FFIT with the recent inflation of the G3 (Panels 1, 2 and 3).⁴ The U.S. and the euro area have already locked in price stability while Japan is in a phase of deflation. By contrast, the IFFIT countries adopted this regime to improve or lock in recent gains in credibility. Three of the seven used FFIT to complete disinflation, while the remaining four used this regime to lock in recent gains in disinflation.

⁴ To facilitate cross-country comparisons price stability is measured here as the consumer price index; several of the FFIT countries target narrower price indices.

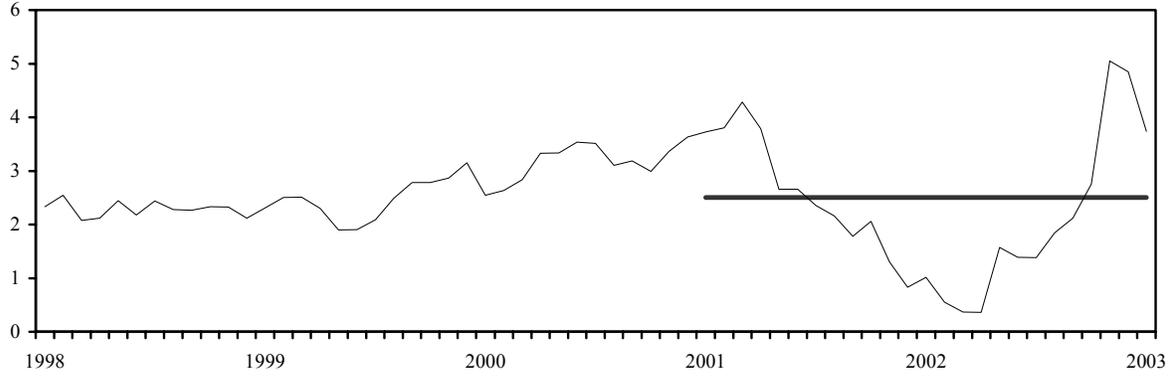
Figure 2. Industrial Full-Fledged Inflation Targeting Countries 1/
CPI Inflation Rate and Target Range



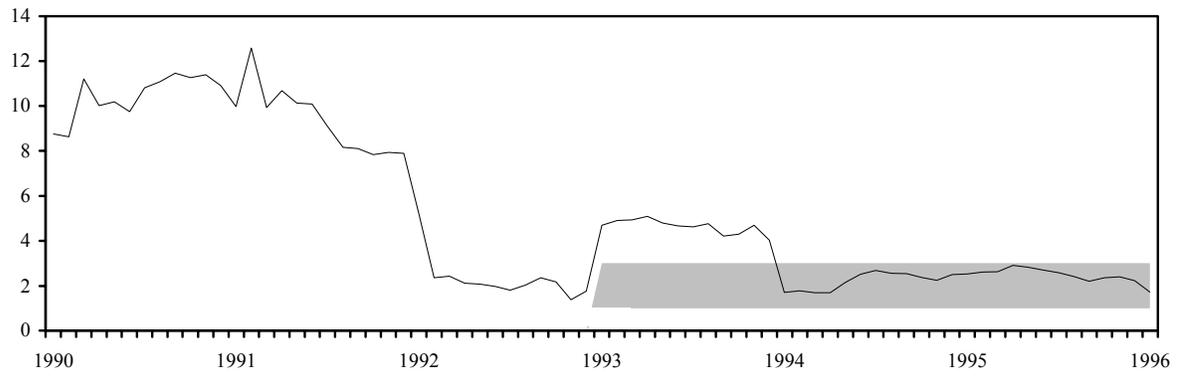
Source: *International Financial Statistics* and central bank websites.
1/ Three years before and three years after the adoption of full-fledged inflation targeting.

Figure 3. Industrial Full-Fledged Inflation Targeting Countries 1/
CPI Inflation Rate and Target

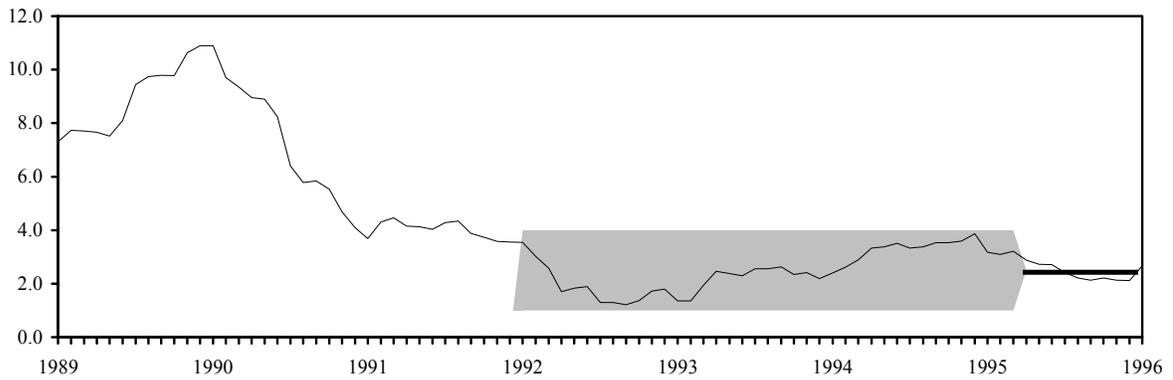
Norway



Sweden



United Kingdom

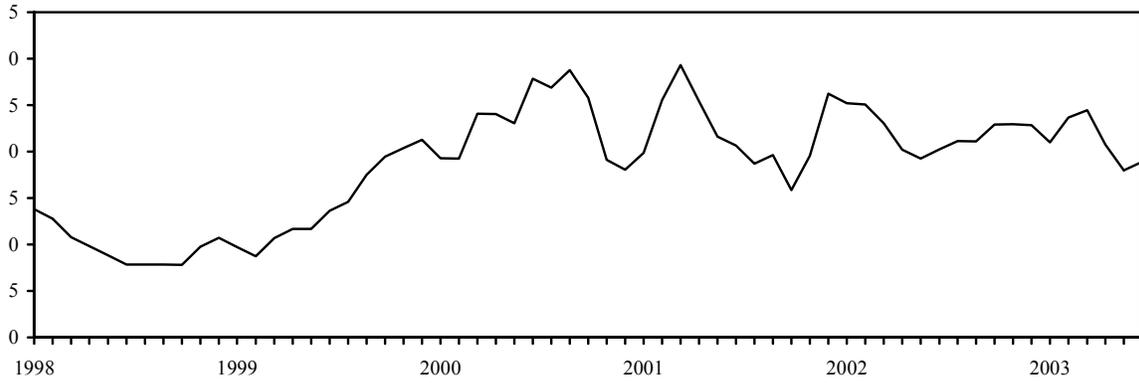


Source: *International Financial Statistics* and central bank websites.

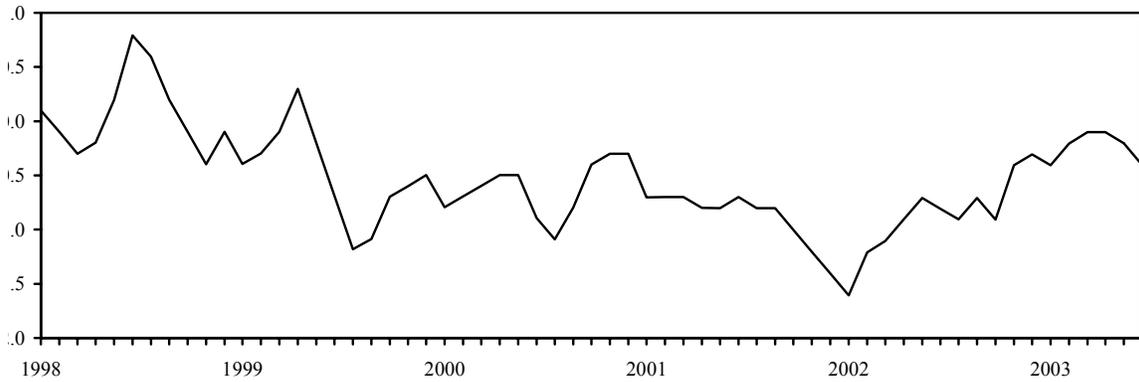
1/ Three years before and three years after the adoption of full-fledged inflation targeting.

Figure 4. G3 Central Bank Inflation Rate, Year-on-Year Change on Monthly CPI
(June 1998 – June 2003, in percent)

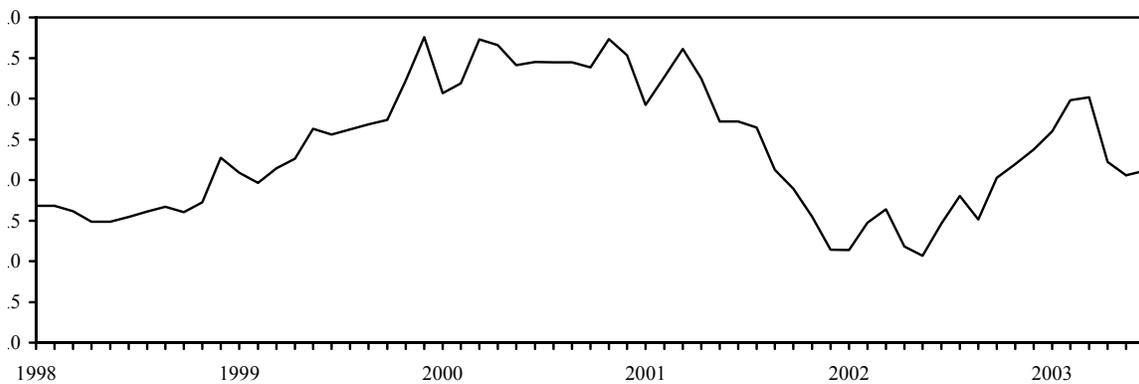
Euro Area



Japan



United States



Source: *International Financial Statistics*.

Structural differences between the EIT countries and the FFIT countries may help to explain the greater credibility of monetary policy of the U.S. and the euro area. EIT countries have larger and have more developed financial systems compared to FFIT countries (Table 6). Size and financial development may serve as empirical proxies for whatever it is that has allowed the EIT countries to keep inflation low and stable without a fully transparent and formally accountable commitment to an inflation target.

IV. FINANCIAL STABILITY POLICIES

Financial stability policies aim at forestalling a systemic financial crisis, or a disruption of financial markets that adversely impacts the real economy. This disruption takes place through economic linkages that emerge during times of crisis, such as the financial accelerator of Bernanke and others (1997) and the collateral effects modeled by Caballero and Krishnamurthy (2001). Financial instability can be thought of as a potential constraint on standard monetary policy instruments during times of crisis, as in Svensson (2002).

There has been little discussion of financial stability policies in the consideration of FFIT generally and for the G3 in particular. However, there may be three potential tensions between financial stability policies and the FFIT framework for G3 countries posed by this regime that are not present under EIT. These tensions raise the possibility that financial stability policies could create confusion under FFIT regarding the commitment of the central bank to the inflation target.

First, for all countries—not just the G3—the special instruments used to address financial instability often are not transparent and thus at odds with FFIT. The toolkit of most central banks include lender-of-last-resort procedures to prevent illiquid but solvent banks from disrupting payments or other important services (Enoch and others, 1997), and foreign exchange market intervention to prevent undue currency fluctuations (Chiu, 2003). The transparency of the FFIT framework is inconsistent with the “constructive ambiguity” that central bankers prefer to maintain in the role as lender of last resort, or in most cases in foreign exchange intervention.

Second, differences in lags in the transmission of policy changes aimed at inflation or aimed at deflating an asset price bubble may cause confusion under FFIT. Asset price bubbles are getting a lot of attention as important challenges facing the G3 countries due to their highly developed capital markets and low rates of inflation (Borio and Lowe, 2002). Japan has been grappling with the aftereffects of the bursting of an asset price bubble for the past decade. A central bank concerned with the real effects of an asset price bubble may tighten policy to deflate the bubble over the medium-term. However, under FFIT, strictly speaking, a policy tightening is aimed solely at reducing inflation and usually is presumed to operate through traditional monetary policy channels. If the financial stability policy channel has a longer lag than the standard monetary policy channels there could be confusion as to whether a policy action is aimed at bringing inflation to the target or forestalling the real effects of the potential bursting of an asset price bubble.

Table 6. Structural Indicators: G3 and Industrial Full-Fledged Inflation Targeting Countries

Countries	GDP \$billions 1990–99	GDP per capita, \$ 1990–99	Broad money ratio to GDP 1990–99	Stock market cap. ratio to GDP, 1990–99	Volume of stocks traded ratio to GDP 1998–2000	Volume of stocks traded \$millions
<i>Ratio of G3 to IFFIT</i>						
Median	1865	134	129	132	167	2768
Average	1469	120	129	138	195	2622
<i>G3</i>						
Euro Area	4,512	21,070	71.7	87.6	70.6	4,580,134
Japan	4,229	33,783	111.7	74.5	40.3	1,782,826
United States	7,339	27,604	51.4	101.8	225.2	20,871,191
Median	4,512	27,604	71.7	87.6	70.6	4,580,134
Average	5,360	27,486	78.3	88.0	112.0	9,078,051
<i>IFFIT countries</i>						
Australia	349	19,322	61.4	66.2	42.4	165,461
Canada	601	20,626	53.8	69.8	70.6	452,285
Iceland	7	26,411	38.6	25.6	10.7	901
New Zealand	52	14,619	82.8	46.3	23.6	12,413
Norway	138	31,574	55.6	29.8	33.8	52,111
Sweden	242	27,580	44.2	78.5	118.4	279,626
United Kingdom	1,166	19,894	87.0	130.1	102.7	1,460,541
Median	242	20,626	55.6	66.2	42.4	165,461
Average	365	22,861	60.5	63.8	57.5	346,191

Sources: *International Financial Statistics* and World Bank Development Indicators.

Finally, G3 monetary policy actions aimed at maintaining international financial stability could potentially create confusion under FFIT. A special consideration for G3 countries is their role in maintaining international financial stability owing to their systemic importance.

This special role could at certain times introduce maintaining international financial stability as an extra argument in the monetary policy objective function over and above domestic price and output stability. An example here is the loosening of U.S. monetary policy after the Russia crisis in late 1998; according to Kohn (2003): "...the pressures of an inflation target would have constrained flexibility that in the end turned out to be useful."

The potential tensions between financial stability policies in the FFIT regime could be resolved simply by making stability policies more transparent. Explaining financial stability policies in a transparent way that is easy for the markets and public to understand is a challenging task. However, this task is facilitated by a credible policy regime which could reduce the possibility that expansionary monetary policies in support of financial stability could be viewed as threats to the inflation target.

V. COUNTRY-SPECIFIC ISSUES

In the consideration of a switch from EIT to FFIT the U.S. and euro area should be examined separately from Japan owing to the different levels of credibility with respect to price stability. The U.S. and the euro area have perhaps the most credible monetary policies in the world. Monetary policy for Japan faces a deflationary liquidity trap and thus should be considered separately.

The U.S. and the euro area

The price stability credibility of the U.S. and the ECB is so strong in current circumstances that the costs and benefits of adopting FFIT pertain mainly to future events. The adoption of FFIT would pose *the cost of a loss in policy discretion, at least in the short run, against the benefit of locking in the credibility of the inflation commitment against future events*. Prices are so stable right now that there seems little scope for further improvement in monetary policy credibility.⁵

The cost of a loss in policy discretion depends on the extent to which FFIT would bind the hands of monetary policy in the future, and on the shocks for which discretion is useful. A highly credible FFIT framework may hardly limit discretion at all, but this is hard to tell. Similarly, the probability of events that would warrant a discretionary policy reaction that could be inconsistent with the inflation target or hard to explain in the FFIT framework is impossible to assess.

Three future events could be seen to potentially adversely impacting the credibility of U.S. and euro area monetary policy:

- *A change in the head of the central bank* has been seen as potentially undermining the credibility of monetary policy under EIT (c.f. Goodfriend, 2003). The last two Federal Reserve Board chairmen have gained favorable reputations and much of the support for FFIT for the U.S. is based on the argument that this regime could lock in their hard earned credibility.
- *Fiscal dominance* could hurt the credibility of monetary policy under any regime. This seemed to occur in the U.S. the 1970s and its recurrence cannot be ruled out especially in light of the recent increase in projected Federal government deficits. The euro area seems to be on safer ground in this respect owing to the fiscal constraints that now bind under the Maastricht treaty. Formal joint establishment of an explicit inflation target with the central bank and the government in an FFIT framework could help reduce the likelihood of fiscal dominance in the future.

⁵ There would also be costs and benefits in the transition to FFIT. For example, there may be a political cost to narrowing the Federal Reserve's current "dual" mandate to one focusing mainly on price stability.

- The risk of future *deflation* could be lower in an FFIT regime with an adequate “buffer zone” between zero and the inflation target (Bernanke, 2002; Kumar and others, 2003). The risk of inflation falling close to zero may be reduced under FFIT especially through the “inflation expectations” channel of monetary policy under which the public is more inclined to believe that the central bank will not let inflation fall below the transparent inflation target because the central bank would be held accountable for breaches (Svensson, 2000).

The benefits of FFIT for the U.S. and the ECB would increase in the probability and the adverse impact on monetary policy credibility of these three adverse events.

Japan

Consideration of FFIT for Japan must be seen in terms of the paramount monetary policy issue: how to get out of the deflationary liquidity trap. The liquidity trap means that Japan does not meet one of the main widely accepted preconditions for FFIT: well-established links between monetary policy instruments and inflation. The liquidity trap is linked to the slow burning financial crisis that has not led to a sudden systemic crisis but has been part and parcel of Japan’s “lost decade” (Callen and Ostry, 2003). The ill health of banks and other financial intermediaries has greatly undermined the monetary policy transmission (Morsink and Bayoumi, 1999). However, financial reforms are underway in Japan.

The credible adoption of FFIT by Japan could help bring deflation to an end by enhancing the inflation expectations channel. In theory, a credible long-run commitment to positive inflation would convince markets that short-term interest rates would remain near-zero for as long as it takes to bring the economy back to the inflation target (Auerbach and Obstfeld, 2003). Thus FFIT could bring the benefit of a more rapid end to deflation. However, the empirical evidence for the effectiveness of the inflation expectations channel in Japan is mixed (Okina and Shiratsuka, 2003).

The BoJ is implementing and considering novel new instruments of monetary policy to end deflation. For example, the BOJ has also begun to buy asset-backed securities from small and medium-sized enterprises. The gap in the understanding of how monetary policy can be made effective in the setting of a liquidity trap has led to a number of interesting and thought-provoking proposals focusing on large increases in liquidity (Baig, 2003) and other nonconventional approaches such as a dynamic exchange rate target (McCallum, 2000 and Svensson, 2001), real assets (Eggertsson, 2003) and a price level target (Bernanke, 2003). The role of the banking sector in monetary policy transmission is not explicitly modeled in most of these papers.

A move to the uncharted waters of FFIT in a deflationary liquidity trap would raise unprecedented and potentially risky challenges to monetary policy. First, the ineffectiveness of monetary policy in a liquidity trap means that it may take a long period before the announced inflation target is actually met. A prolonged period outside the inflation target band could hurt credibility, which, once lost, can be costly to regain. Indeed, the failure of a

new FFIT regime to restore inflation could further entrench the deflationary spiral. Second, new and untested monetary instruments, which may be motivated by an explicit inflation target, carry important risks and potential costs. For example, the direct provision of liquidity by the central bank to the nonfinancial private sector could actually slow the pace of financial reform by bypassing private banks. These proposals are intriguing but they further increase the risks of adopting FFIT. In short, for Japan FFIT would generate a *possible benefit of a more rapid end to deflation against the cost of a hit to credibility if the new regime failed to end deflation or slow the pace of financial sector recovery.*

Of course, there is one sure way to avoid the risks of adopting FFIT to end deflation in a liquidity trap adopt a decisive financial reform program. An integrated financial restructuring program that induced a resumption of bank intermediation would restore the effectiveness of monetary policy and help meet the main challenge to monetary policy of ending deflation—regardless of the monetary regime. Indeed, the focus of policy discussions on the adoption of a quantitative target and new and untested monetary instruments may even distract attention from the solution of a decisive financial reform program. For Japan financial reform could serve as a temporary but important “channel” of monetary policy.

VI. CONCLUSION

This paper used FFIT as a “straw man” to shed light on greater monetary policy transparency by the G3. The U.S. and the ECB probably have no room for improvement in price stability credibility. For them the adoption of FFIT would incur the cost of a loss in policy discretion, at least in the short run, while bringing the benefit of locking in the credibility of the low inflation commitment against future events. Japan is now less credible because it is in a deflationary liquidity trap. For Japan, therefore, the choice of a FFIT requires weighing the potential benefit of a more rapid end to deflation against the potential further hit to credibility from failing to end deflation in the context of a liquidity trap. In addition, there are risks arising from the introduction of new and unknown monetary instruments to end deflation.

The G3 seem to be moving toward an unprecedented monetary regime which resembles FFIT in transparency but not in accountability. Japan in March 2001 adopted an “almost quantitative” numerical inflation target and the ECB in May 2002 moved toward an explicit numerical inflation point target. The ECB also increased transparency by deemphasizing its “monetary pillar” (Jaeger, 2003). In contrast, shifts by the G3 to formal accountability à la FFIT are unlikely. Indeed, for the ECB the introduction of formal accountability is highly unlikely because it would require a change in the constitution of the European Union which would require unanimous consent. Another institutional constraint could be the large size of the Governing Council of the ECB. Even the proposals for the U.S. to adopt “inflation targeting” (Bernanke and others, 1999; Truman, 2003; Goodfriend, 2003) do not involve the formal accountability modalities reported in Table 3.

A new inflation targeting regime somewhere in between EIT and FFIT may also be the ultimate destination of some of the IFFIT countries. None of the FFIT countries now appear to be considering such a switch, although given the relatively short history of FFIT greater flexibility in the commitment to the inflation target may well happen in the future if

credibility became so well entrenched that the central bank could temporarily shift its objective away from price stability without a deterioration in inflation expectations. In practice, a switch from FFIT to EIT could be implemented by announcing a higher weight for output stability, widening the inflation target band, or lengthening the horizon (Debelle, 2003).

The advent of a new inflation targeting regime with transparency but without formal accountability for the G3 raises two interesting questions. First, how much scope for discretion, if any, would be lost by greater transparency? Usually there is no free lunch in monetary policy and thus a possible loss in discretion from a more transparent and accountable framework seems to be worth thinking about. This question could be answered by adding an FFIT-type policy reaction function to a large model of the G3 and backing out how much monetary aggregates and interest rates would have differed under this reaction function from the actual experience.⁶ Any discretion lost from a more formal G3 inflation targeting regime would seem most relevant when the central bank is taking actions to maintain domestic financial stability or offset shocks to the international financial system. While analyses of the hypothetical effects of a loss of discretion are exceedingly difficult technically, this subject seems at least worthwhile as formulating original ways of getting out of a deflationary liquidity trap.

Second, how would the G3 countries be *informally* held accountable for numerical inflation targets? Goodfriend (2003) suggests that the U.S. announce an inflation band and rely on public and market pressures for the Fed to adhere to the band; the formal means of institutional accountability adopted in FFIT countries would not be needed. Instead, market “Fed watchers” would monitor the Fed on behalf of the public.

The much greater degree of stock market activity in the G3 is suggestive. Table 6 indicates that the ratio of stock market trading for the G3 compared to the FFIT countries exceeds the ratio of GDP levels by an order of magnitude. The much greater degree of trading activity for the G3 may provide hints for how informal accountability works under the new inflation targeting regime. This informal accountability mechanism could be built on economies of scale and financial incentives for market-based Fed watchers to act on behalf of the public. The efficacy of such an informal accountability mechanism is another important area of research.

⁶ Clarida and others (1998) and Ahearne and others (2002) exemplify this type of approach.

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