

SUPPLEMENTARY DATA
for
How Transparent Are Central Banks?

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Supplementary Data

This supplement contains the detailed information and sources used to construct the scores on the index of central bank transparency described in the Appendix for nine central banks (Australia, Canada, Euro zone, Japan, New Zealand, Sweden, Switzerland, United Kingdom, United States) from 1998 to 2002. For each of the fifteen items of the index, the score for June 1998 and subsequent changes (if any) are included in bold in square brackets. Tables S1-S5 provide an overview of all the transparency scores. Nearly all sources mentioned below are available from central banks' web sites.

Reserve Bank of Australia (<http://www.rba.gov.au>)

1.a [1] Objectives: (a) the stability of the currency of Australia; (b) the maintenance of full employment in Australia; and (c) the economic prosperity and welfare of the people of Australia. *Reserve Bank Act* 1959, Part II 10(2), Functions of Reserve Bank Board.

Prioritization: "These objectives allow the Reserve Bank to focus on price (currency) stability while taking account of the implications of monetary policy for activity and, therefore, employment in the short term." *Statement on the Conduct of Monetary Policy*, by the Treasurer and the Reserve Bank Governor (designate), 14 August 1996.

1.b [1] "In pursuing the goal of medium term price stability the Reserve Bank has adopted the objective of keeping underlying inflation between 2 and 3 per cent, on average, over the cycle." *Statement on the Conduct of Monetary Policy*, by the Treasurer and the Reserve Bank Governor (designate), 14 August 1996.

1.c [1] Operational responsibility: *Reserve Bank Act* 1959, Part II 10(1).

Explicit override procedure: *Reserve Bank Act* 1959, Part II 11.

Instrument independence: "The Government recognises the independence of the Bank and its responsibility for monetary policy matters and intends to respect the Bank's independence as provided by statute. Section 11 of the Reserve Bank Act prescribes procedures for the resolution of policy differences between the Bank and the Government. The procedures, in effect, allow the Government to determine policy in the event of a material difference; but the procedures are politically demanding and their nature reinforces the Bank's independence. Safeguards like this ensure that monetary policy is subject to the checks and balances inherent and necessary in a democratic system." *Statement on the Conduct of Monetary Policy*, by the Treasurer and the Reserve Bank Governor (designate), August 14, 1996.

2.a [0.5] Money, price, output and unemployment data are available from web site under Statistics.

2.b [0 + 1 (10/2001)] Meredith Beechey, Nargis Bharucha, Adam Cagliarini, David Gruen, Christopher Thompson, "A small model of the Australian macro economy", *Reserve Bank of Australia Research Discussion Paper* 2000-05, provide a macroeconomic model. However, it was only in the speech "The Monetary Policy Process at the RBA" by Glenn Stevens, Assistant Governor, Melbourne, October 10, 2001, that it was clarified that this is indeed used by the Reserve Bank for policy analysis.

2.c [0.5] Since November 2000, the Reserve Bank publishes a quarterly *Statement on Monetary Policy* (replacing the *Semi-Annual Statement on Monetary Policy* and the *Quarterly Report on the Economy and Financial Markets*, published since 1997), which contains a rough short-term inflation projection. In addition, the *Opening Statement to House of Representatives Standing*

Committee on Economics, Finance and Public Administration of the semi-annual testimony by the Governor, which is held since 1997, contains a rough short-term output forecast.

3.a [1] The monetary policy framework of inflation targeting is outlined in the *Statement on the Conduct of Monetary Policy*, by the Treasurer and the Reserve Bank Governor (designate), 14 August 1996.

See also http://www.rba.gov.au/MonetaryPolicy/about_monetary_policy.html

3.b [0] No minutes available.

3.c [0] No voting records available.

4.a [1] Changes in policy decision are usually announced the day after the policy meeting at 9:30am, when the policy implementation starts (at least since 1990).

4.b [0.5] Policy explanations including forward-looking assessments released together with announcement of policy decision but only when policy changes (at least since 1990).

4.c [0] No explicit policy inclination.

5.a [1] Operating target for the cash rate (interest rate on overnight interbank loans in money market). Since 1998, a graphical evaluation of the cash rate target in the annual *Report and Financial Statements*, *Operations in Financial Markets*, shows nearly perfect control.

5.b [0.5] Analysis of macroeconomic developments and rough short-term inflation forecast in quarterly *Statement on Monetary Policy*.

5.c [0] Policy outcome not compared to objectives. (However, implicit graphical evaluation of inflation target since August 2001 *Statement on Monetary Policy*.)

Bank of Canada (<http://www.bankofcanada.ca/>)

1.a [1] Objectives: “to regulate credit and currency in the best interests of the economic life of the nation, to control and protect the external value of the national monetary unit and to mitigate by its influence fluctuations in the general level of production, trade, prices and employment, so far as may be possible within the scope of monetary action, and generally to promote the economic and financial welfare of Canada”. *Bank of Canada Act*, Preamble.

Prioritization: The joint statement of the Government of Canada and the Bank of Canada on the renewal of the inflation-control target (February 24, 1998) clarifies that “The best contribution monetary policy can make to these goals is through preserving confidence in the value of money by providing an environment of stable average prices” and expresses the commitment of the Government and Bank to an explicit inflation-control target (with a similar joint statement on May 17, 2001).

1.b [1] Inflation-control target range (since 1991), equal to 1-3% (effective since 1995) focused around the midpoint of 2% and using 12-month CPI inflation. See “Renewal of the Inflation-Control Target: Background Information” (May 18, 2001).

1.c [1] Explicit override procedure: *Bank of Canada Act* 14(2)-(3).

2.a [1] Information available in the *Bank of Canada Review*, e.g. Spring 2001 issue, Table A2: Major Financial and Economic Indicators.

2.b [1] Policy model described by Richard Black and David Rose (1997), “Canadian Policy Analysis Model (CPAM)”, *Bank of Canada Working Paper* 97-16.

2.c [0.5] Rough projections for inflation and output in semiannual *Monetary Policy Report* and its *Update* every other quarter since August 2000.

3.a [1] “Inflation-control (targeting) strategy” (since 1991) is described in the November 1997 *Monetary Policy Report*. See also “Renewal of the Inflation-Control Target: Background Information”, May 2001.

- 3.b [0] No minutes available.
- 3.c [0] No voting records available.
- 4.a [1] Policy decisions announced at 9am on fixed announcement days (which started only in December 2000; previously, same day announcement of changes in policy actions).
- 4.b [1] Press release with announcement of policy decision includes explanation with forward-looking assessments (at least since 1997).
- 4.c [0] No explicit policy inclination.
- 5.a [1] Initially, the main operating instrument was the Bank rate, which (since February 1996) is the interest rate the Bank of Canada charges on one-day loans to financial institutions and the ceiling of an operating band of 50 basis points for the overnight rate. Since May 2001, the Bank's key policy rate is the Overnight Rate Target, which is the midpoint of the operating band. Data and graphs on the Bank's web site suggest near perfect control.
- 5.b [0.5] Analysis of macroeconomic developments (at least since 1995) and rough inflation and output forecasts in semiannual *Monetary Policy Report*, and since August 2000 at quarterly frequency with the regular *Update*.
- 5.c [0.5] Graphical evaluation and some discussion of policy outcomes in *Annual Report* and *Monetary Policy Report (Update)*, but without an explicit account of deviations from objectives. (In "Renewal of the Inflation-Control Target: Background Information", May 2001, the Bank announced that persistent deviations in inflation from the target midpoint will be explained in the quarterly *Monetary Policy Report (Update)*. However, the Bank does not provide any account of the role of monetary policy in the (lack of) achievement of its objectives.)

European Central Bank (<http://www.ecb.int>)

- 1.a [1] Objectives and prioritization: "the primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community as laid down in Article 2 of this Treaty" *Protocol on the Statute of the European System of Central Banks and of the European Central Bank*, Art. 2.
- 1.b [1] Quantitative definition of price stability: annual increase of the Harmonised Index of Consumer Prices (HICP) for the Euro area of less than 2 per cent. See ECB press release "A stability-oriented monetary policy strategy for the ESCB", 13 October 1998.
- 1.c [1] Independence: "When exercising the powers and carrying out the tasks and duties conferred upon them by this Treaty and this Statute, neither the ECB, nor a national central bank, nor any member of their decision making bodies shall seek or take instructions from Community institutions or bodies, from any government of a Member State or from any other body." *Protocol on the Statute of the ESCB and of the ECB*, Art. 7.
- 2.a [1] Information available in the *Monthly Bulletin*, section "Euro area statistics".
- 2.b [0 + 1 (1/2001)] Policy model described by G. Fagan, J. Henry and R. Metez, "An Area-Wide Model (AWM) for the Euro Area", *European Central Bank Working Paper* 42, January 2001.
- 2.c [0 + 0.5 (12/2000)] Since December 2000, medium term conditional inflation and output projections are published twice a year in the June and December *Monthly Bulletin*.
- 3.a [1] "Two Pillar Strategy" with (1) a prominent role for money, and (2) a broadly based assessment both of the outlook regarding price developments and of the risks to price stability in the Euro area as a whole. *Monthly Bulletin* January 1999.
- 3.b [0] No minutes available.

3.c [0] No voting records available. (It has been suggested that the ECB decides “by consensus”. However, according to the *Protocol on the Statute of the ESCB and of the ECB*, Art. 10(2), the Governing Council shall act by majority voting.)

4.a [1] Policy decisions are announced the same day.

4.b [0.5 + 0.5 (11/2001)] Initially, there were two policy meetings every month, the first of which was followed by a press conference in which the President provides an introductory statement with an explanation of the policy decision. Since November 2001, there has been a monetary policy meeting once a month followed by the press conference.

4.c [0] No explicit policy inclination.

5.a [1] Main operating instruments are minimum bid rate on the main refinancing operations and the interest rates on the marginal lending facility and the deposit facility.

5.b [0.5] Analysis of current macro developments in *Monthly Bulletin*.

5.c [0.5] Informal evaluation and discussion of policy outcomes in *Monthly Bulletin* and *Annual Report*, but no explicit account of the role of monetary policy.

Bank of Japan (<http://www.boj.or.jp>)

1.a [0.5] Multiple objectives without priority: to issue banknotes; to carry out currency and monetary control aimed at contributing to the sound development of the national economy through the pursuit of price stability; and, to ensure smooth settlement of funds among banks and other financial institutions, thereby contributing to the maintenance of an orderly financial system. *Bank of Japan Law* Art. 1 and 2.

1.b [0] No precise definition and/or quantification of the objectives could be found.

1.c [1] Independence: “The Bank of Japan’s autonomy regarding currency and monetary control shall be respected.” *Bank of Japan Law*, Art. 3.

2.a [1] Data is available at the following web sites: money at Bank of Japan; inflation and unemployment rate at Statistics Bureau and Statistics Center (www.stat.go.jp); GDP at Cabinet Office (www.esri.cao.go.jp); capacity utilization at Ministry of Economy, Trade and Industry (www.meti.go.jp).

2.b [0] No explicit policy model could be found.

2.c [0 + 0.5 (10/2000)] Since October 2000, the semiannual *Outlook and Risk Assessment of the Economy and Prices* contains short-term conditional forecasts for inflation and output by the Policy Board.

3.a [0] No explicit monetary strategy could be found.

3.b [1] Non-attributed minutes are released approximately six weeks after policy meeting, including summary of discussions, remarks by Government representative and individual votes.

3.c [1] Individual voting records are published together with minutes, approximately six weeks after the policy meeting.

4.a [1] Policy decisions are announced the same day.

4.b [0.5] Policy explanation at the time of announcement but only when policy decision changes.

4.c [0] No explicit policy inclination.

5.a [1 - 0.5 (3/2001)] Initially, there was a main operating target for the average uncollateralized overnight call rate; charts in the *Monthly Report of Recent Economic and Financial Developments* show quite some fluctuations but suggest that the targets for the average call rate were indeed met (with effectively a ‘zero interest rate policy’ since February 12, 1999). On March 19, 2001 the main operating target was changed to the outstanding balance of the

current accounts at the Bank. This target is very rough and there are significant fluctuations in the outstanding balance but no explanations for it.

5.b [0.5] Analysis of macroeconomic situation in *Monthly Report of Recent Economic and Financial Developments* and (since October 2000) short-term inflation and output forecasts in the semiannual *Outlook and Risk Assessment of the Economy and Prices*.

5.c [0.5] Informal evaluation of policy outcome in *Monthly Report of Recent Economic and Financial Developments*, without explicitly accounting for deviations between outcomes and objectives.

(Unfortunately, the Bank of Japan web site appears quite hard to navigate, but for those who persist it provides very elaborate information.)

Reserve Bank of New Zealand (<http://www.rbnz.govt.nz/>)

1.a [1] Primary objective: “The primary function of the Bank is to formulate and implement monetary policy directed to the economic objective of achieving and maintaining stability in the general level of prices.” *Reserve Bank Act* 1989, Part II, Sec 8.

In addition: “Have regard to the efficiency and soundness of the financial system” *Reserve Bank Act* 1989, Part II, Sec 10; and “In pursuing its price stability objective, the Bank shall implement monetary policy in a sustainable, consistent and transparent manner and shall seek to avoid unnecessary instability in output, interest rates and the exchange rate.” *Policy Targets Agreement*, December 16, 1999.

1.b [1] Policy target specified in *Policy Targets Agreement*: 12-monthly increase in the CPI(X) between 0 and 3 % (from December 1997-1999).

1.c [1] Independence: operational independence subject to *Policy Targets Agreement* and override mechanism. See *Reserve Bank Act* 1989, Part II, Sec 13.

Explicit override mechanism: *Reserve Bank Act* 1989, Part II, Sec 12

2.a [0.5 + 0.5 (2002)] All the time series except for capacity utilization can be found on the web site under Statistics. Data on capacity utilization have been available in Excel spreadsheets that accompany *Monetary Policy Statements* on the web site, at least since June 2002 (when we first observed them).

2.b [1] The macroeconomic model used for medium term analysis is presented by Richard Black, Vincenzo Cassino, Aaron Drew, Eric Hansen, Benjamin Hunt, David Rose and Alasdair Scott (1997), “The Forecasting and Policy System”, *Reserve Bank of New Zealand Research Paper* 43.

2.c [1] The quarterly *Monetary Policy Statement* includes numerical, unconditional projections for inflation and output up to three years ahead.

3.a [1] Inflation targeting strategy described in *Policy Targets Agreement*, December 15, 1997; a useful complement is “Monetary policy implementation and signalling: Discussion Document”, March 1997,

<http://www.rbnz.govt.nz/monpol/about/0047041.html>. For a more recent account, see “Independent review of the operation of monetary policy: Submission by the Reserve Bank of New Zealand”, September 2000,

<http://www.rbnz.govt.nz/monpol/review/0096189.pdf>.

3.b [1] Comprehensive explanation of policy stance (including medium term macroeconomic projections) by Reserve Bank Governor published in quarterly *Monetary Policy Statement* (about six weeks after Official Cash Rate review dates since March 1999).

3.c [1] Policy decisions are made by the Governor.

4.a [1] Initially, the formal monetary policy instrument was the daily settlement cash target. Although the cash target was last changed in August 1995, the Governor indicated in his “Speaking notes” for the May 1998 *Monetary Policy Statement* that any cash target changes would be promptly announced after the policy meeting. In practice, the monetary policy stance was essentially conveyed in terms of a target for the Monetary Conditions Index (MCI; weighted average of trade-weighted exchange rate and 90-day interest rate), starting in December 1996. These desired MCI levels were announced and explained every quarter with the release of the *Economic Projections* (discontinued in March 1998) and the *Monetary Policy Statement*. Since March 1999, the main operating target has been changed from settlement cash to the Official Cash Rate (which is the midpoint of an operating band of 50 basis points for the interbank interest rate) and policy decisions have been promptly announced at Official Cash Rate review dates.

(Focusing on the intermediate operating target (MCI), 4.a would also be [1].)

4.b [0 + 0.5 (3/1999) + 0.5 (12/2000)] Initially, there were no explanations of formal policy decisions. After the introduction of the Official Cash Rate in March 1999, explanations first only in case of policy changes, but since December 2000 also for no-change decisions.

(Focusing on the intermediate operating target (MCI), 4.b would be [1 - 0.5 (3/1999) + 0.5 (12/2000)].)

4.c [0 + 1 (3/1999)] Initially, there was no inclination for the formal policy instrument, but since March 1999 the quarterly *Monetary Policy Statement* have included three-year ahead unconditional projections for the 90-day bank bill rate, which is very closely related to the Official Cash Rate.

(Focusing on the intermediate operating target (MCI), the quarterly *Monetary Policy Statement* included three-year ahead unconditional projections for the MCI until March 1999, so 4.c would be [1].)

5.a [0 + 1 (3/1999)] Initially, when daily settlement cash target was the formal operating target, there was no evaluation of its achievement. Since March 1999, the main operating target is the Official Cash Rate, which is controlled almost perfectly (e.g. see Andy Brookes and Tim Hampton, ‘The Official Cash Rate one year on’, *Reserve Bank Bulletin*, June 2000)

(Focusing on the intermediate operating target, deviations of the MCI from its target used to be discussed in the quarterly *Monetary Policy Statement*, so 5.a would be [1].)

5.b [0.5] Analysis of macroeconomic developments and short-term forecasts for inflation in quarterly *Monetary Policy Statement*.

5.c [0.5] Graphical evaluation of policy outcome in quarterly *Monetary Policy Statement*, without an explicit account how monetary policy contributed to the achievement of objectives.

Swedish Riksbank (<http://www.riksbank.com>)

1.a [0.5 + 0.5 (1/1999)] “The objective of the Riksbank’s operations shall be to maintain price stability. In addition, the Riksbank shall promote a safe and efficient payment system.” *Sveriges Riksbank Act*, Chapter 1, Art. 2 (amendment effective January 1999).

1.b [1] Inflation target (formulated in 1993, effective since 1995) of 2 % with a margin of ± 1 percentage point. *Annual Report* 1997.

1.c [0.5 + 0.5 (1/1999)] Independence: “The Riksbank is responsible for monetary policy. No authority may determine the decisions made by the Riksbank on issues relating to monetary policy.” *Constitution Act*, Chapter 9, Art. 12; and “Members of the Executive Board may not seek nor take instructions when they are fulfilling their monetary policy duties.” *Sveriges*

Riksbank Act, Chapter 3, Art. 2 (both amendments effective January 1999).

2.a [0.5 + 0.5 (12/1999)] Since 2001, all information is available from the Riksbank web site; data on money under the heading Statistics, and data on inflation, GDP, unemployment rate and capacity utilization (in the form of econometric estimates of the output gap) in Excel spreadsheets that are made available for downloading with each *Inflation Report* (first for December 1999).

2.b [0] No explicit policy model could be found.

2.c [1] Conditional inflation and output forecasts for a two-year horizon are published in the quarterly *Inflation Report*.

3.a [1] Monetary policy framework is explained as ‘rule-of-thumb’ adjustment of repo rate based deviation of inflation forecast from target, with two exceptions: (1) temporary inflation effects are disregarded, and (2) adjustment is gradual in case of costly real effects. See *Annual Report* 2000, p. 10; and speech on ‘Monetary Policy’ by Lars Heikensten, October 22, 1997. (Essentially flexible inflation forecast targeting.)

3.b [1] Detailed non-attributed minutes including policy discussions, released 2-3 weeks after the meeting.

3.c [0 + 1 (5/2002)] Initially, attributed reservations against the decision were sometimes noted in the minutes, but it was not clear whether these were (the only) dissents. This was clarified in May 2002, so that the minutes effectively provide voting records.

4.a [1] Policy decisions are promptly announced after the policy meeting before implementation.

4.b [0.5 + 0.5 (10/1999)] Explanation of adjustments in policy instrument, and since October 1999 of all policy decisions at time of announcement.

4.c [0 + 1 (3/2002)] Policy inclination has been provided since March 2002.

5.a [1] Main operating instrument: Repo rate.

5.b [0.5 + 0.5 (3/2000)] Analysis of macroeconomic developments and macroeconomic forecasts in quarterly *Inflation Report*. In addition, annual discussion of past inflation forecast errors in March *Inflation Report* since 2000.

5.c [0.5 + 0.5 (3/2000)] Initially, review of policy outcome in *Annual Report*. Since 2000, annual evaluation of inflation outcome over last three years in March *Inflation Report*, including a discussion of the effect of monetary policy.

Swiss National Bank (<http://www.snb.ch>)

1.a [0.5] Objectives: “The principal task of the National Bank is to regulate the country’s money circulation, to facilitate payment transactions, and to pursue a credit and monetary policy serving the interests of the country as a whole.” *National Bank Law* Art. 2(1)

1.b [0 + 1 (12/1999)] Quantitative definition of price stability since December 1999: inflation rate as measured by the national consumer price index of less than 2 % per annum.

1.c [0.5 + 0.5 (1/2000)] “As an independent central bank, the Swiss National Bank shall pursue a monetary policy serving the interests of the country as a whole”, *Federal Constitution* Art. 99(2), January 2000 amendment.

2.a [1] Money, inflation, output and unemployment data are available in the *Statistical Monthly Bulletin*. Other data is available via Swiss Statistics web site (www.statistics.admin.ch).

2.b [0] Although Peter Stalder, “An econometric macro-model for Switzerland”, *Quarterly Bulletin* 2, June 2001, discusses a policy model, it is only in French and German and only presents a few of the equations.

2.c [0 + 0.5 (12/1999)] Since December 1999, inflation forecast for the three ensuing years, presented in the June and December *Quarterly Bulletin* (French and German only) and at the half-yearly media news conference (in English).

3.a [1] Initially, monetary policy framework was focused on medium term monetary growth targets. Since 2000, this has been abandoned in favor of effectively an inflation targeting strategy. See “Monetary policy of the Swiss National Bank” in various issues of the *Annual Report*.

3.b [0] No minutes available.

3.c [0] No voting records available.

4.a [1] Initially, annual announcement concerning longer run monetary growth target. After adopting a target for the LIBOR, policy decisions are announced the same day.

4.b [1] Explanation of all policy decisions at time of announcement.

4.c [0] No explicit policy inclination.

5.a [1 - 0.5 (12/1999)] Initially, graphical evaluation of monetary targets in *Annual Report*, including explanation for deviations. Since December 1999, operational target range of 100 basis points for three-month LIBOR rate graphically evaluated in *Annual Report*, but no explanations for significant fluctuations within target.

5.b [0] Analysis of macroeconomic developments in *Quarterly Bulletin*, but only brief abstract available in English. No analysis in *Monthly Statistical Bulletin*, merely graphs (again only brief abstract in English).

5.c [0] The Bank only gives a review of the year, but doesn't account for discrepancies between policy outcome and target.

Bank of England (<http://www.bankofengland.co.uk>)

1.a [1] “The objectives of the Bank of England are to maintain price stability and, subject to that, support the economic policy of Her Majesty's Government, including its objectives for growth and employment.” *Bank of England Act 1998*, Ch 11 Part II, Sec 11

1.b [1] The price stability objective is to achieve underlying inflation, measured by the RPI excluding mortgage interest rates, of 2.5%.

1.c [1] Operational responsibility: *Bank of England Act 1998*, Ch 11, Part II, Sec 10.

Explicit override mechanism: *Bank of England Act 1998*, Ch 11, Part II, Sec 19.

2.a [0.5 + 0.5 (2002)] Time series are available from the Office of National Statistics web site (www.statistics.gov.uk), initially with the exception of capacity utilization, and more recently also at the Bank of England web site.

2.b [0 + 1 (4/1999)] Extensive documentation on policy models in *Economic Models at the Bank of England*, April 1999 (see also September 2000 Update), and the computer code of the macroeconometric model is available on the web site.

2.c [1] Conditional inflation and output forecasts for a two-year horizon are published in the quarterly *Inflation Report*.

3.a [1] Monetary policy framework described on web site (www.bankofengland.co.uk/framework.htm)

3.b [1] Comprehensive non-attributed minutes released about two weeks after policy meeting, including summary of discussions and individual votes.

3.c [1] Individual voting records included together with minutes.

4.a [1] Policy decisions announced the same day.

- 4.b [0.5] Explanation of policy decisions at time of announcement when policy changes (with a few exceptions).
- 4.c [0] No explicit policy inclination.
- 5.a [1] Main operating instrument: Repo rate.
- 5.b [0.5 + 0.5 (8/1999)] Short-term forecasts for inflation and output, and analysis of macroeconomic developments in quarterly *Inflation Report*. In addition, discussion of the MPC's forecasting record in the August *Inflation Report* (since 1999).
- 5.c [0.5] Evaluation of policy outcome only casually in quarterly *Inflation Report*.

Federal Reserve (<http://www.federalreserve.gov/>)

- 1.a [0.5] Multiple objectives without priority: "The Board of Governors of the Federal Reserve System and the Federal Open Market Committee shall maintain long run growth of the monetary and credit aggregates 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-term interest rates." *Federal Reserve Act* Sec. 225a.
- 1.b [0] No explicit target for objectives.
- 1.c [0.5] No explicit instrument independence in *Federal Reserve Act*.
- 2.a [1] All data available from the FRED database at the Federal Reserve Bank of St Louis web site (www.stls.frb.org).
- 2.b [1] Policy model described by Flint Brayton and Peter A. Tinsley (1996) "A Guide to FRB/US: A Macroeconomic Model of the United States", *Federal Reserve Board Finance and Economics Discussion Paper* 96-42.
- 2.c [0.5] Short-term economic projections for inflation and output are published in the semiannual *Monetary Policy Report to the Congress*.
- 3.a [0] No explicit monetary policy strategy could be found.
- 3.b [1] Non-attributed minutes, including discussion of arguments and individual votes, released about six weeks after policy meeting.
- 3.c [1] Individual voting records included together with minutes
- 4.a [1] Decisions about adjustments in policy instrument announced the same day.
- 4.b [0.5 + 0.5 (5/1999)] Initially, only explanation at time of announcement in case of policy changes, and since May 1999 also when policy remains unchanged.
- 4.c [0 + 1 (5/1999)] Since May 1999, explicit phrase in statement after every meeting that describes the policy tilt, clarified in Federal Reserve Board Press Release "FOMC announced modifications of its disclosure procedures", January 19, 2000.
- 5.a [1] Annual evaluation of target for Federal Funds rate reveals near perfect control. For instance, see *Domestic Open Market Operations During 2001*, Federal Reserve Bank of New York, Markets Group, February 2002.
- 5.b [0] Macroeconomic analysis and short-term forecasts for inflation and output in the semiannual *Monetary Policy Report to the Congress*.
- 5.c [0.5] Only informal evaluation of policy outcomes in the semiannual *Monetary Policy Report to the Congress*.

Table S1: Index of Central Bank Transparency, June 1998

| Central Bank Transparency | Australia | Canada | Euro zone | Japan | New Zealand | Sweden | Switzerland | UK | US |
|----------------------------------|------------|-------------|-----------|------------|-------------|------------|-------------|------------|------------|
| 1. Political | 3 | 3 | N/A | 1.5 | 3 | 2 | 1 | 3 | 1 |
| a. Formal Objectives | 1 | 1 | N/A | 0.5 | 1 | 0.5 | 0.5 | 1 | 0.5 |
| b. Quantitative Targets | 1 | 1 | N/A | 0 | 1 | 1 | 0 | 1 | 0 |
| c. Institutional Arrangements | 1 | 1 | N/A | 1 | 1 | 0.5 | 0.5 | 1 | 0.5 |
| 2. Economic | 1 | 2.5 | N/A | 1 | 2.5 | 1.5 | 1 | 1.5 | 2.5 |
| a. Economic Data | 0.5 | 1 | N/A | 1 | 0.5 | 0.5 | 1 | 0.5 | 1 |
| b. Policy Models | 0 | 1 | N/A | 0 | 1 | 0 | 0 | 0 | 1 |
| c. Central Bank Forecasts | 0.5 | 0.5 | N/A | 0 | 1 | 1 | 0 | 1 | 0.5 |
| 3. Procedural | 1 | 1 | N/A | 2 | 3 | 2 | 1 | 3 | 2 |
| a. Explicit Strategy | 1 | 1 | N/A | 0 | 1 | 1 | 1 | 1 | 0 |
| b. Minutes | 0 | 0 | N/A | 1 | 1 | 1 | 0 | 1 | 1 |
| c. Voting Records | 0 | 0 | N/A | 1 | 1 | 0 | 0 | 1 | 1 |
| 4. Policy | 1.5 | 2 | N/A | 1.5 | 1 | 1.5 | 2 | 1.5 | 1.5 |
| a. Prompt Announcement | 1 | 1 | N/A | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Explanation | 0.5 | 1 | N/A | 0.5 | 0 | 0.5 | 1 | 0.5 | 0.5 |
| c. Policy Inclination | 0 | 0 | N/A | 0 | 0 | 0 | 0 | 0 | 0 |
| 5. Operational | 1.5 | 2 | N/A | 2 | 1 | 2 | 1 | 2 | 1.5 |
| a. Control Errors | 1 | 1 | N/A | 1 | 0 | 1 | 1 | 1 | 1 |
| b. Transmission Disturbances | 0.5 | 0.5 | N/A | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0 |
| c. Evaluation Policy Outcome | 0 | 0.5 | N/A | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0.5 |
| Total | 8 | 10.5 | N/A | 8 | 10.5 | 9 | 6 | 11 | 8.5 |

Table S2: Index of Central Bank Transparency, June 1999

| Central Bank Transparency | Australia | Canada | Euro zone | Japan | New Zealand | Sweden | Switzerland | UK | US |
|----------------------------------|------------|-------------|------------|------------|-------------|------------|-------------|------------|------------|
| 1. Political | 3 | 3 | 3 | 1.5 | 3 | 3 | 1 | 3 | 1 |
| a. Formal Objectives | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| b. Quantitative Targets | 1 | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 0 |
| c. Institutional Arrangements | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 | 1 | 0.5 |
| 2. Economic | 1 | 2.5 | 1 | 1 | 2.5 | 1.5 | 1 | 2.5 | 2.5 |
| a. Economic Data | 0.5 | 1 | 1 | 1 | 0.5 | 0.5 | 1 | 0.5 | 1 |
| b. Policy Models | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| c. Central Bank Forecasts | 0.5 | 0.5 | 0 | 0 | 1 | 1 | 0 | 1 | 0.5 |
| 3. Procedural | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 2 |
| a. Explicit Strategy | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| b. Minutes | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| c. Voting Records | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 4. Policy | 1.5 | 2 | 1.5 | 1.5 | 2.5 | 1.5 | 2 | 1.5 | 3 |
| a. Prompt Announcement | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Explanation | 0.5 | 1 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0.5 | 1 |
| c. Policy Inclination | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5. Operational | 1.5 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1.5 |
| a. Control Errors | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Transmission Disturbances | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0 |
| c. Evaluation Policy Outcome | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0 | 0.5 | 0.5 |
| Total | 8 | 10.5 | 8.5 | 8 | 13 | 10 | 6 | 12 | 10 |

Table S3: Index of Central Bank Transparency, June 2000

| Central Bank Transparency | Australia | Canada | Euro zone | Japan | New Zealand | Sweden | Switzerland | UK | US |
|----------------------------------|------------|-------------|------------|------------|-------------|-----------|-------------|-------------|------------|
| 1. Political | 3 | 3 | 3 | 1.5 | 3 | 3 | 2.5 | 3 | 1 |
| a. Formal Objectives | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| b. Quantitative Targets | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| c. Institutional Arrangements | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 |
| 2. Economic | 1 | 2.5 | 1 | 1 | 2.5 | 2 | 1.5 | 2.5 | 2.5 |
| a. Economic Data | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 |
| b. Policy Models | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 1 | 1 |
| c. Central Bank Forecasts | 0.5 | 0.5 | 0 | 0 | 1 | 1 | 0.5 | 1 | 0.5 |
| 3. Procedural | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 2 |
| a. Explicit Strategy | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| b. Minutes | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| c. Voting Records | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 4. Policy | 1.5 | 2 | 1.5 | 1.5 | 2.5 | 2 | 2 | 1.5 | 3 |
| a. Prompt Announcement | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Explanation | 0.5 | 1 | 0.5 | 0.5 | 0.5 | 1 | 1 | 0.5 | 1 |
| c. Policy Inclination | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5. Operational | 1.5 | 2 | 2 | 2 | 2 | 3 | 0.5 | 2.5 | 1.5 |
| a. Control Errors | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 | 1 | 1 |
| b. Transmission Disturbances | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 1 | 0 |
| c. Evaluation Policy Outcome | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 0.5 | 0.5 |
| Total | 8 | 10.5 | 8.5 | 8 | 13 | 12 | 7.5 | 12.5 | 10 |

Table S4: Index of Central Bank Transparency, June 2001

| Central Bank Transparency | Australia | Canada | Euro zone | Japan | New Zealand | Sweden | Switzerland | UK | US |
|----------------------------------|------------|-------------|------------|------------|-------------|-----------|-------------|-------------|------------|
| 1. Political | 3 | 3 | 3 | 1.5 | 3 | 3 | 2.5 | 3 | 1 |
| a. Formal Objectives | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| b. Quantitative Targets | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| c. Institutional Arrangements | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 |
| 2. Economic | 1 | 2.5 | 2.5 | 1.5 | 2.5 | 2 | 1.5 | 2.5 | 2.5 |
| a. Economic Data | 0.5 | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 |
| b. Policy Models | 0 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| c. Central Bank Forecasts | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| 3. Procedural | 1 | 1 | 1 | 2 | 3 | 2 | 1 | 3 | 2 |
| a. Explicit Strategy | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| b. Minutes | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| c. Voting Records | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 |
| 4. Policy | 1.5 | 2 | 1.5 | 1.5 | 3 | 2 | 2 | 1.5 | 3 |
| a. Prompt Announcement | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Explanation | 0.5 | 1 | 0.5 | 0.5 | 1 | 1 | 1 | 0.5 | 1 |
| c. Policy Inclination | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 1 |
| 5. Operational | 1.5 | 2 | 2 | 1.5 | 2 | 3 | 0.5 | 2.5 | 1.5 |
| a. Control Errors | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 1 |
| b. Transmission Disturbances | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 1 | 0 |
| c. Evaluation Policy Outcome | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 0.5 | 0.5 |
| Total | 8 | 10.5 | 10 | 8 | 13.5 | 12 | 7.5 | 12.5 | 10 |

Table S5: Index of Central Bank Transparency, June 2002

| Central Bank Transparency | Australia | Canada | Euro zone | Japan | New Zealand | Sweden | Switzerland | UK | US |
|----------------------------------|------------|-------------|-------------|------------|-------------|-----------|-------------|------------|------------|
| 1. Political | 3 | 3 | 3 | 1.5 | 3 | 3 | 2.5 | 3 | 1 |
| a. Formal Objectives | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| b. Quantitative Targets | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| c. Institutional Arrangements | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0.5 |
| 2. Economic | 2 | 2.5 | 2.5 | 1.5 | 3 | 2 | 1.5 | 3 | 2.5 |
| a. Economic Data | 0.5 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Models | 1 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 |
| c. Central Bank Forecasts | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 1 | 0.5 | 1 | 0.5 |
| 3. Procedural | 1 | 1 | 1 | 2 | 3 | 3 | 1 | 3 | 2 |
| a. Explicit Strategy | 1 | 1 | 1 | 0 | 1 | 1 | 1 | 1 | 0 |
| b. Minutes | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| c. Voting Records | 0 | 0 | 0 | 1 | 1 | 1 | 0 | 1 | 1 |
| 4. Policy | 1.5 | 2 | 2 | 1.5 | 3 | 3 | 2 | 1.5 | 3 |
| a. Prompt Announcement | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| b. Policy Explanation | 0.5 | 1 | 1 | 0.5 | 1 | 1 | 1 | 0.5 | 1 |
| c. Policy Inclination | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 |
| 5. Operational | 1.5 | 2 | 2 | 1.5 | 2 | 3 | 0.5 | 2.5 | 1.5 |
| a. Control Errors | 1 | 1 | 1 | 0.5 | 1 | 1 | 0.5 | 1 | 1 |
| b. Transmission Disturbances | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 1 | 0 |
| c. Evaluation Policy Outcome | 0 | 0.5 | 0.5 | 0.5 | 0.5 | 1 | 0 | 0.5 | 0.5 |
| Total | 9 | 10.5 | 10.5 | 8 | 14 | 14 | 7.5 | 13 | 10 |