

COMMENTARY

Why a Dual Mandate is Wrong for Monetary Policy

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I. Introduction

Central banks have existed for hundreds of years. Their performance over this extended period has taught observers what central banks can do and what they cannot do. In most advanced industrial economies during the last two decades of the 20th century, a consensus emerged that tended to re-establish long-neglected distinctions between the monetary and fiscal activities of government. Central bank activities were limited to a narrower range than had been the case from the early 1930s to the late 1980s. Unfortunately, in the United States and some other leading industrial economies, those lessons have begun to break down in the last year or so.

II. What Central Banks Can Do: The Federal Reserve (the Fed) Controls the Monetary Base

To explain some basic assumptions about statutory mandates to the Fed, it is useful to begin with a statement of what central banks actually can do. Central banks create or destroy the monetary base, which consists almost entirely of the

sum of currency outstanding and reserves of depository institutions held at the central bank. Other, usually lesser, components of the monetary base include currency in the vaults of the banking system or in automated teller machines that the system controls. In Great Britain, Canada and the United States, the central bank initially supplies currency to depository institutions for distribution to the public. In some other countries, and in the past in the United States, the Treasury may provide initial supplies of currency to the banking system.

III. How Does the Fed Create or Destroy the Monetary Base?

The Fed has two principal methods of controlling reserves. It can lend money (its own credit) to depository institutions and change the discount rate on these loans. The Fed also can perform open-market operations intended to influence either the quantity of banking system reserves or the interest rate that the money market charges for short-term (usually overnight) extensions of credit.

In a simplified example of open-market operations to increase reserves, the Fed buys US Treasury securities by writing a cheque drawn on itself (or by crediting the seller's account on its own books). If the seller of the Treasury securities does not maintain an account at the Fed, then the seller deposits the Fed's cheque in its own bank (or its bank receives a credit from the Fed), increasing the seller's total deposits. The depository bank in turn presents the Fed's cheque at its own district Federal Reserve Bank, thus increasing its reserves. The opposite sequence occurs when the Fed sells Treasury securities – the purchaser's deposits fall, and in turn the reserves of its bank of deposit decrease.

The Federal Open Market Committee, which directs monetary policy for the Fed, currently specifies a narrow range for the Federal funds rate. The interest rate on overnight loans from one bank to another is the policy instrument that the Fed normally uses to achieve its desired level of reserves. When the Fed specifies a higher Fed funds rate, it makes the higher rate stick in the market by reducing reserves in the entire US financial system. When it specifies a lower Fed funds rate, the Fed makes the lower rate stick by providing increased reserves. Over time, the Fed funds rate deviates minimally from the target rate.

With this background, we can proceed to list the lessons that central banks have learned about what they can do and compare these lessons with objectives or mandates that might be (and that we believe in fact are) beyond the Fed's structural capacity to achieve. The current statutory mandates for the Fed are described at the end of these lessons. The recently renewed emphasis by the Fed on either discount window operations or open-market operations that resemble discount window operations, neither of which comports entirely with the current statutory mandates, are discussed in the last substantive portion of this essay.

IV. Lessons for Central Banks

Lesson 1: Central banks have learned that their knowledge of current and prospective developments of the economy is incomplete. They cannot know all that they would need to know to operate a perfect, large-scale model of the economy all of the time. The data they use are subject to repeated revisions, even for retrospective data, so the actions they decide to take are hedged because of uncertainty. As a result, especially since the disinflation of the early 1980s, central banks have tended to take small policy action steps. Because of lags in the effects of monetary policy action on the economy, central banks prefer to wait until an effect can be observed in the real world before taking further policy steps. The lesson here is central bank prudence in the magnitude and frequency of policy rate changes. This prudence ordinarily leads central banks to avoid aggressive and pre-emptive measures. Their knowledge is too uncertain to support big steps.

Over most of the last year, the Fed aggressively lowered the Federal funds rate to avert a widely predicted recession. The recession, in turn, was expected to be severe, driven by a collapse of consumer spending as overheated housing prices declined and mortgage foreclosures increased. The Federal Open Market Committee's post-meeting statements for most of the last year have referred to the 'downside risks' of failure to act, to act vigorously enough, or to maintain a steady, low interest-rate policy; there were several inter-meeting conference calls at which rates were reduced or new lending policy initiatives were announced; and other signs of urgency emerged this time that were missing in the 'brief and mild' recessions of 1990–91 and 2000–01 (including any explicit reference to 'brief and mild', even though that reference was used to describe these earlier recessions). Although no single rate reduction was as great as 1%, for example, the cumulative effect of the series of reductions of discount rate (for primary credit), the Federal funds rate, or both, that began in August 2007 has been large (reductions of 3.25% at this writing). But the general prediction of any recession so far, let alone a severe one, has not been confirmed.

Experts may quibble over whether the Fed's rate-cutting went too far or too fast and whether the current comparatively low level of the Federal funds rate (2% at this writing) has been maintained for too long (since 30 April 2008) in the face of strong inflationary pressures. It is hard to argue, however, that the combination of the Fed's rate cuts with the Treasury's programme of taxpayer rebate cheques did not help maintain what consumer spending there was. At the same time, it is hard to argue that the banks and securities firms receiving the increased Federal Reserve credit on easier terms widely shared that increased and easier credit with consumers or even with each other. That is why the direct loans from the Fed keep mounting.

The Fed's response to a general tightening of banks' lending terms towards their own borrowers over the last year has been all carrot and no stick. If the Fed wishes to take credit for preventing a consumer-led recession thus far in 2008, then it needs to explain how giving the banks more funds (the carrot) helped consumers and other borrowers if all that happened was easing temporarily the liquidity constraints on the banks with little visible benefit for the consumers (no stick).

The Fed's policy rate reduction over the last year has had two undeniable effects: the foreign exchange value of the dollar has plummeted (US dollar index fell from about 83 to about 73, early July 2007 to early July 2008), and the inflation rate has risen (up 5.0%, June 2007 to June 2008). The inflation rate has risen, measured either as the Fed prefers or as its critics would like. The Fed's choice of a price measure is the core price of consumer expenditures, excluding food and energy. The distinction between core and headline inflation could be ignored as long as Federal Reserve credit grew at a rate close to the Fed's implicit target for the core: growth between 1% and 2%. Most of the past year the Fed's credit expansion held the line on monetary base growth, but since late May the Fed let aggregate credit grow at an annual rate approaching 5%. Coincidentally, headline inflation up to 5% was recorded from June to July 2008. The weak dollar has benefited exports of goods and services but has increased the price of oil imports, thus offsetting some of the improvement in the US balance of trade (the monthly balance of trade was –\$67 billion in July 2006 and improved to just below –\$55 billion in August 2007, but it was nearly –\$60 billion again in May 2008).

The big change in Fed policy objectives since the 1980s has been an acknowledgement that the key responsibility of a central bank is to control inflation. The Fed has adopted an implicit target for projected future inflation. The target became the public's expected inflation rate. Whether this situation will continue is the big question about the Fed's performance since February 2006, when Chairman Ben Bernanke took over from Alan Greenspan. The Fed thus far has not demonstrated that it seeks to win credibility by responding to the evidence of a persistently higher level of inflation than the implicit target that it initially set [the year-over-year consumer price index (CPI) inflation rate reported for June 2008, 5.0%, is well above the presumed central tendency of Fed policy preferences for 'core' inflation—CPI minus food and energy—between 1% and 2%]. The Fed's critics argue that a core measure underestimates inflationary pressure on the economy and that a headline measure including all goods and services is preferable. The CPI is the measure with which the public is most familiar. Differences between CPI and core inflation could be ignored as long as Federal Reserve credit grew at a rate close to the Fed's implicit target for core

inflation, which was the case for most of the past year. Increased Fed credit expansion in recent months, accelerating from an annual rate of about 2% to more than 4% since mid-May 2008, has coincided with annualized CPI inflation of 5% or more since June (5.6% in July), more than twice the level of the core rate (2.3% to 2.4%, February to June, then 2.5% in July). Small and prudent tightening steps, which are appropriate in the face of uncertainty, should suffice to restore public confidence in the Fed's determination to achieve the public's preferred inflation target. In any case, the presumptively preferred target rate probably is much lower than the rate actually achieved thus far.

Lesson 2: For the Fed to lend directly to the Treasury, to government agencies, or even to private entities that the Treasury otherwise would have to fund through the regular congressional appropriations process, is a slippery slope. The costs of doing so are politicization of the money supply process. As a general principle, the Fed's charter wisely prohibits such lending. Discount window accommodations to insolvent institutions, whether banks or non-banks, misallocate resources. Political decisions in those cases are substituted for market decisions. Institutions that have failed the market test of viability should not be supported by the Fed's monetary issues, and the Fed's discount window lending expands banking reserves just as much as open-market operations do.

A depository institution traditionally was said to be eligible for discount window assistance when it was illiquid but solvent. That also has been the statutory general rule since 1991. The Fed has been suspected of providing assistance over the last year to depository institutions that may be liquid but also are insolvent, without declaration of their insolvency. Since late 2007, the Fed has expanded access to the discount window to non-bank securities firms, some of whom are primary dealers in the government securities market, and has lowered standards for collateral that borrowers must provide. Section 1604(d) of the new Housing and Economic Recovery Act of 2008 (HR 3221, p. 176, signed into law on 30 July 2008) even authorizes the Fed to lend to 'bridge banks' (entities created by the Federal Deposit Insurance Corporation to receive assets and liabilities of failing depository institutions) without penalty, even though such borrowers by definition are insolvent or near insolvency. Policy and statutory changes like these raise questions about the legal basis of access to the discount window (Table 1). Over the past year, there have been great increases in the amounts of Fed lending from a near-zero base, with most of the increase occurring since the mid-March 2008 rescue of Bear Stearns (Table 2). The terms of that lending also have deviated greatly from those that prevailed previously, including stretching to breaking point of the concept of short-term lending for liquidity purposes only. Also, the lowering of the Fed's collateral standards

Table 1: Federal Reserve Lending Authority

Category	FR Act authority	Notes
US Treasuries held outright	14 [b] [1]	i
Repurchase agreements	14 [b][1]?	ii
Term Auction Facility credit	10B?	iii
Other loans		
Advances to banks	10B & 13	iv
Primary dealer credit	13 [3]?	v
Maiden Lane LLC	13 [3]?	vi
FRBNY loan	13 [3]?	vii
JPMorgan Chase	10B?	viii
Other Fed assets		ix
Note: Forex swaps	14?	x
Securities loans to dealers	14 [b]?	xi
Overnight facility	14 [b][1]?	
Term facility	14 [b] ?	

Notes: Question marks indicate reasonable guess as to unspecified basis of authority.

- (i) Includes securities lent to dealers under overnight and term securities lending facilities.
- (ii) Open-market operations supplying funds to market. Activity is *fait accompli*. Authority is doubtful but probably is asserted under 'general spirit' of Section 14 [b].
- (iii) Original limit was \$20 billion per auction [\$40 billion total] when begun in December 2007. Maximum term is 28 days. No clear statutory authority. Reg. A Sec. 201.3[d] applies. In late July 2008, a new facility with maturities of up to 84 days was announced.
- (iv) Discount window credit is traditional under Secs. 10B and 13, but not simultaneously.
- (v) New, hybrid form of credit begun in March 2008. Section 13 [3] is alleged authority.
- (vi) Maiden Lane LLC is the funding vehicle through which FRBNY holds Bear Stearns assets; as of 7 March 2008, Fed has disclosed loans here instead of in notes (iv) and (v) above. Authority probably is *fait accompli*. Section 13 [3] was originally alleged loan authority.
- (vii), (viii) FRBNY loan is for ten years, renewable at Fed's option. JPMorgan Chase loan is for approx. \$1 billion of assets held by Maiden Lane; max. regular term = 120 days [10B?].
- (ix) Other assets include foreign exchange but traditionally were buildings and equipment. Bank premises value as of 12 March 2008 was \$2.1 billion.
- (x) Foreign exchange swap agreements with European Central Bank and Swiss National Bank. Activity is *fait accompli* from 1961 with alleged authority in Sec. 14, first paragraph.
- (xi) Swaps with dealers of Treasuries for AAA-rated asset-backed securities, begun 11 March 2008. Bear Stearns rescue = 16 March 2008. Authority for term swap facility is doubtful. On 6 August 2008, new programme of end-of-quarter and end-of-year options for up to \$50 billion of securities loans was announced.

to accommodate the new classes of borrowers and the types of assets that the borrowers hold has increased the liability risks on the Fed's balance sheet – ultimately underwritten by taxpayers – due to the Fed's disproportionate exchange of values for its full-faith-and-credit Treasury securities (Table 3).

Lesson 3: A widely held belief in the world financial community is that the default of major debtors could lead to bank failures that would precipitate a broader financial crisis. For example, the World Bank maintains a 'con-

Table 2: Deviations from Previous Terms of Federal Reserve Lending

Category	Balance	Change since 8 August 2007	FR credit added or subtracted	Stated limit of activity	Change since 12 March 2008
US Treasuries held outright	479.3	- 311.5	Subtract		- 229.8
Repurchase agreements	110.5	91.9	Add		51.8
Term Auction Facility credit	150	150	Add	150	90
Other loans	17.5	17.5	Add		17.4
Advances to banks	17.5	17.5	Add		17.4
Primary dealer credit	0	0	Add		0
Maiden Lane LLC	29.1	29.1	Add	30	29.1
FRBNY loan	28.9	28.9	Add	29	28.9
IPMorgan Chase loan	1.2	1.2	Add	1	1.2
Other Fed assets	104	62.5	Add		61.6
Note: Forex swaps	Est. 61.6	62.5	Add	67	Est. 61.6
Securities loans to dealers	132.9	129.4	Neutral		121.3
Overnight facility	8	4.5	Neutral		- 3.6
Term facility	124.9	124.9	Neutral	200	117.7
Term facility options	0	0	Neutral	50	0
Total Reserve Bank credit	889.2	38.9	Add		20
Factors adding credit		352			254.1
Factors subtracting credit		- 311.5			- 239.8
Net Reserve Bank credit		35.5	Add		14.3
Memoranda:					
New Fed cash added to and securities lent to banks and dealers			352	129.4	481.4
54.1% of Federal Reserve Bank credit factors			[12 March 2008 = 12.4%]		
Bear Stearns rescue = 16 March 2008.					

Notes: Dollars in billions; weekly averages of daily figures; data as of 6 August 2008 [From Federal Reserve H.4.1 release, 7 August 2008]

Factors above might not add to correct sums due to rounding.

Federal Reserve currently holds no federal agency securities in its own portfolio, but its holdings of such securities in custody for foreign central banks are set forth in Table 3.

Table 3: Federal Reserve Liability Risks for Taxpayers

New Fed cash added to banks and dealers after August 2007	352				
New Fed securities lent to banks and dealers after August 2007	129.4				
Total new risks to balance sheet	481.4				
Combined amount lent = 54.1% of Federal Reserve Bank credit factors					
[Note: 12 March 2008 = 12.4%; Bear Stearns rescue = 16 March 2008.]					
FRBNY discount window loans and advances				12	[H.4.1 category = 'other loans']
FRBNY Maiden Lane LLC net portfolio value				29.1	
11 Reserve Banks 'other loans'				5.5	
Versus FRBNY capital, surplus and other capital				10.2	
11 Reserve Banks capital, surplus and other capital				30.1	
Fed agency securities holdings in custody for foreign central banks are as follows (\$ billion):					
	8 June 2008	8 August 2007	Year change	Total 5-month rate of increase	5-month rate annualized
	976.8	758.6	218.2	873.5	0.11826 28.38%

Notes: It is unclear (undisclosed) whether FRBNY is guaranteeing par value on these securities to the foreign central banks. The Fed owns no federal agency securities for its own portfolio.

On 13 July 2008, the Treasury and Federal Reserve announced a new programme of support for federal agency securities targeted at Federal National Mortgage Association and Federal Home Loan Mortgage Corporation securities. There has been no new H.4.1 release indicating that these entities are borrowing from the Federal Reserve. On 30 July 2008, HR 3221, the Housing and Economic Recovery Act of 2008 became law. It authorizes these entities to borrow unspecified amounts from the Treasury until year-end 2009.

tagion' website with links to numerous articles reflecting this view and discussing how contagion should be managed¹.

The crisis management tool that holders of this view, apparently including the Secretary of the Treasury and the Chairman of the Fed, usually propose is that major debtors must be rescued (for example, government-sponsored enterprises Fannie Mae and Freddie Mac received guarantees of sufficient equity investment and assurances of lines of credit from those two officials on Sunday night, 13 July 2008, ahead of the opening of Asian financial markets the next day). This view apparently also underlays the reasoning process behind the 16 March 2008 rescue of Bear Stearns, a non-bank securities firm and primary dealer.

The Federal Reserve Bank of New York and the Treasury Department ostensibly engineered these rescues to avert the projected dire consequences of failure for banks and the stability of the financial system. Yet, the lesson of financial history is that an institutional debtor whose affairs have been mismanaged should be declared bankrupt and liquidated if the depressive effect of 'market overhang' is to be avoided – the failure of investors to commit new capital to competing ventures because of ongoing competition from defunct institutions (Professor Edward J. Kane of Boston College calls such financial institutions 'zombies', the walking dead needing burial to avoid damage to the living). Default by such debtors would not result in irrationally contagious bank failures if the public understood the government's 'no bailouts' policy and if other financial institutions with credible capital positions remained open to receive deposits from the defunct institutions (Schwartz 1986).

So long as the security of private bank deposits is assured, no generalized financial crisis will occur at the retail deposit level (\$100,000 and below). Fear of contagion, usually meaning panicky runs by uninsured depositors, general creditors and derivative counterparties of failing institutions, has distracted official and public attention from the true remedies for bad financial practices.

The essential elements of a financial crisis are created when institutional structures assuring prompt exit of insolvent market participants do not exist, when authorities are unschooled in the procedures that tend to preclude the arrival of a crisis, and when private-sector creditors have reason to doubt the dependability of crisis-preventive arrangements. In ordinary times, the private sector's familiarity with and confidence in the responses of market-monitoring institutions like rating agencies and the prudence and integrity of the supervisory authorities would make official concern with financial crises misplaced. The Fed ordinarily can avert any

¹<http://www1.worldbank.org/economicpolicy/managing%20volatility/contagion/topicn.asp>

liquidity crisis by open-market purchases of sufficient magnitude. Chairman Bernanke has said as much publicly, and the public knows that he has said it. The current problem seems to be the solvency of financial institutions, however, and it is doubtful that mere liquidity operations ever can suffice to resolve such a problem.

The sub-prime mortgage disaster in the United States is a financial crisis with roots that did not exist in most of the prior lending crises within the Fed's experience. The closest analogy was the failure of the Long-Term Capital Management hedge fund in 1998. The Fed and other federal financial institution supervisory authorities have responded this time with ineffective measures that cannot calm both the credit market and the stock market beyond a few weeks or months. The Fed has relied on massive liquidity injections, when what the markets needed instead was the restoration of credibility to the balance sheets of firms whose portfolios were filled with exotic investment vehicles whose true value was uncertain. Balance sheets too often were based on historic cost or book values for assets that had no current market, and the solvency of the firms receiving the Fed's liquidity injections was in question. That was why the credit market froze: lenders were uncertain of their borrowers' capacity to repay their loans (Volcker 2008).

Before Bear Stearns failed on 16 March 2008, discount window borrowings throughout the entire Federal Reserve System were only \$200 million, no securities had been lent to Wall Street firms through the Term Securities Lending Facility, and only \$60 billion had been lent to banks through the Term Auction Facility (Federal Reserve, H.4.1 releases). Since Bear Stearns failed, discount window credit for both Bear Stearns assets (Maiden Lane LLC) and new loans to banks has risen to more than \$47 billion, securities lent have risen by \$124 billion, and Term Auction Facility credit has risen by \$90 billion. Thus, if Bear Stearns alone were responsible for all the demand for new funding through the Fed, then Bear Stearns would have been carrying \$261 billion of assets on a capital base that JPMorgan Chase, the acquiring institution, valued at \$1.2 billion (\$10 per share), an absurd leverage ratio. It is inconceivable that simply closing and liquidating Bear Stearns would have generated more demand for borrowings from the Fed than those that actually occurred.

The methods used for Bear Stearns (fully protecting the general creditors and derivative counterparties, plus shareholder value of \$10 per share) generated actually measured ripple effects (\$261 billion worth) through the financial services industry that were so great that any rational alternative to those closing methods (like appointing a conservator or receiver and freezing old accounts and payments as of the date of that appointment) would have put fewer public funds at risk. In an analogous situation in 1990, the federal authorities closed the securities firm Drexel Burnham Lambert

with no discernible ripple effects. Advocates of aggressive Fed action at the time expressed surprise because Drexel formerly was the linchpin of the junk bond market to the same extent that Bear Stearns recently was the linchpin of trading in credit default swaps (Rosenbaum 1990). The Drexel closing could be done with minimal disruption to the market because, in those days, enforcement of accounting rules, especially for primary dealers, was stricter, and there were real penalties in the market for failure of compliance. With an asset portfolio supposedly marked to market every day and with required net capital margins maintained, it should be (and in fact was) comparatively easy to terminate a failing firm with no one making new loans to it. It is a stark warning sign about the current condition of accounting compliance and net capital requirement enforcement for investment banks that, at the time of closing, Securities and Exchange Commission Chairman Christopher Cox testified before Congress a few weeks after the Bear Stearns closing that the firm met all of its supervisory net capital and liquidity requirements.

Bank and investment bank failures are always difficult to explain to a public that no longer is conditioned to expect them and to a Congress and Executive Branch apparatus that hates to see powerful and generous donors disappear from the marketplace. But experienced market participants would not have panicked if a receiver had been appointed for Bear Stearns. The judgement of that part of the market would have been that the creditors of Bear Stearns were warned in advance, *de facto*, by the size of the risk premia they received for underwriting that firm's risk-taking; thus, both Bear Stearns and its creditors would have received their just desserts (the latter, for lending to a known or reasonably suspected troubled institution).

Shareholders and employees of Bear Stearns wound up being only partially or not at all protected. It made little sense to treat the firm's general creditors and derivative counterparties more generously. If a receiver had been appointed, the Fed could have made a statement that it would not bail out failing securities firms or other institutions, and the current parade of supplicants to the Fed's door would have dried up. The market would have recognized that the Fed was not pussyfooting around but was speaking and acting candidly. For those still worried about alleged ripple effects, there still would remain the possibility of a direct request to the Treasury and Congress for assistance, which would be the procedurally correct thing to do but a very bad idea, nevertheless.

V. External Limits on Activism at the Fed

Those who would prefer that the Fed pursue more than one mandate (the core central banking mandate presumptively is price-level stability) aspire to a state of the world that is potentially admirable but, alas, can find no

sustainable expression in the real world. No dual mandate is possible, in other words, and might not even be desirable for the reasons set forth below.

The mechanics of monetary policy making are so arranged that a central bank wishing to pursue an expansionist (and potentially inflationary) path easily can do so. The model commonly encountered in the economic literature for expansionist Fed activity has typically assumed that all the Fed has to do is to pour reserves into the banking system; then the money supply expands almost without limit; and finally the credit market will offer cheap loans for nearly any conceivable purpose that a borrower proposes. The results of actual attempts to implement policy according to that model have always been higher prices and good times until the bubble of higher asset prices collapsed and a weakened foreign exchange value of the dollar resulted in a flight from the dollar.

Adding zeros to the money supply and prices is all that will be achieved by an overly expansive Fed. The inevitable conclusion to excessively expansive behaviour is tightening of the policy. That eventual tightening will cause interest rates to soar in the effort to control inflation. If money is a neutral factor in equations of exchange, then monetary policy can produce only nominal change over time, and the one objective that a central bank can control is the price level. An institution that can achieve only nominal change has no tools to achieve real outcomes (see generally Barro 1997, pp. 730–44).

The Fed does not control real variables relevant to its statutory mandates: productivity, economic growth and the unemployment rate. These variables reflect the quality of the labour force, the entrepreneurial capacity of the business community, and the availability of venture capital. The Fed can lower interest rates when a recession occurs. It may stimulate investment, at least in the short term, and increase lending by maintaining a lower interest-rate regime, but it has no control over real outcomes (essentially, the uses to which the increased levels of funds are put) over time.

Unemployment is a real economic variable that models of activist central banking assume that monetary policy somehow can affect over time. Unfortunately, the natural rate of unemployment is the lowest level of unemployment that is attainable without accelerating inflation. The unemployment rate can be lowered permanently only by modifying the real factors determining the natural rate – the age and gender composition of the labour force, the ratio of unemployment benefits to nominal wages, minimum-wage laws, union strength and so on (Friedman 1977). Monetary policy has nothing to do with these things.

A preference for greater emphasis by the Fed on real outcomes than on price stability originally was reflected in the dual mandate for the Fed that the Humphrey–Hawkins Act of 1978 required (Section 2A of

the Federal Reserve Act, 12 USC Section 225a). That short statute is as follows:

The Board . . . 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.

The statute enjoins the Fed to pursue maximum employment as well as price stability, but requiring the Fed to achieve maximum sustainable employment does not endow the Fed with the ability to comply. The Humphrey–Hawkins Act is some evidence that congressional leaders at the time were motivated perhaps by Keynesian and Phillips curve models of the US economy. Such models, which presuppose a linkage or trade-off between interest rates (or policy regarding expansion of the monetary aggregates) and unemployment, had been dominant for a long time then but already were declining in influence among monetary economists. The authors of the Humphrey–Hawkins Act did not appreciate fully what the Fed could and could not do (Friedman and Schwartz 1982). The average level of employment is determined by its own natural rate. Monetary policy cannot change it.

VI. 'Inflation Primarily': A More Viable Objective

If the general concept of 'responsibility for real outcomes' means that the Fed's monetary policy actions should not contribute to unnecessary volatility of real variables, that type of responsibility is, in fact, consistent with a 'price-level stability primarily' objective for the Fed. Such an objective would require the Fed to pursue price-level stability until and unless external factors, like an oil price shock or the unexpected collapse of demand for new housing, threatened substantially to disrupt economic outcomes in the other mentioned variables. The presumptive path would be price-level stability until something pretty big and pretty disruptive came along, in other words.

The experience with inflation targeting outside the United States has seemed to contribute to real stabilization as a basis for sustained economic growth in the last three decades. Such an objective is well within the Fed's core competency. It also probably is an apt description of the policies that the Fed actually pursued between Chairman Bernanke's assumption of office in February 2006 and the arguably belated recognition of the eventual ramifications of the sub-prime mortgage crisis in August 2007.

VII. Back to Basics at the Discount Window

Fed actions at the discount windows of the New York and regional Reserve Banks can have enough influence on the Fed's open-market operations to interrupt compliance with any statutory mandate like those in the Humphrey–Hawkins Act. The normal course of the moderate discount window activities since the 1950s has allowed the managers of open-market operations to take discount window lending into account in determining the size and frequency of open-market operations. Unfortunately, for the better part of the last year and especially since the Bear Stearns rescue in March 2008, discount window operations have been so large and so frequent that they tower over open-market operations, which is surprising because the latter routinely have been about four times as large as previously. The Fed cannot add \$5 billion of reserves through open-market operations aimed at reducing interest rates in order to stimulate production and employment if the discount window simultaneously is providing \$17 billion to worried banks, which it did in a recent week. In that example, the Fed might have to sell \$17 billion of Treasury securities from its open-market portfolio to offset the aggregate monetary effect of the injection of reserves through the discount window. Thus, the new and higher level of activity for the discount window creates compliance problems for any mandate normally observed in open-market operations.

The Fed would be well advised to avoid attempting to resolve the dilemma just described by making the politically understandable but economically undesirable attempt to channel monetary policy-linked interventions in credit markets through the discount window instead of through open-market operations (Schwartz 1992; Todd 1993). In 2003, the Fed finally set the discount rate (currently, the interest rate for advances of primary credit to depository institutions through the discount window) at a penalty rate with respect to the market rate for overnight interbank loans. That was a policy initiative reflecting the best current academic advice and also was a distillation of essentially the same advice in Bagehot (1873).

The academic jury is still out on the efficiency of another recent Fed discount window initiative, the Term Auction Facility (TAF) credit, under which the Fed extends discount window credit to depository institutions for 28 days (recently extended in some cases to 84 days), secured by collateral other than Treasury securities, at an auction-determined rate that regularly has been higher than the Fed funds target policy rate. TAF credit began in December 2007 with a structural quality that recommends it as the lending device of choice for any but unforeseen overnight advances. As a practical experiment, it might make sense for the Fed to cease all other discount window activities and to offer only TAF credit for a defined period. An ideal

situation going forward might be to have the Fed close the discount window altogether except during periods in which TAF credit could be extended.

The current discount window operations of the Fed raise at least two major monetary policy problems. One is the spectre of credit allocation: there is a non-trivial danger that firms and activities favoured by the authorities might receive preferential credit terms, with firms and activities that might be no longer viable in the market remaining in competition with other, more soundly operated institutions (Professor Kane's 'zombie' phenomenon mentioned above). Besides the apparent unfairness of such preferences, that type of central bank activity would carry a high burden of proof of its efficiency.

The other new monetary policy problem raised by the Fed's discount window operations is the sheer magnitude of those operations. If the Fed reduces its holdings of Treasury securities (other than securities lent out) from \$790 billion to \$367 billion in a year, it is fair to ask what the Fed intends to do if it decided that it would tighten monetary policy by raising interest rates. Such a tightening operation ordinarily would be implemented by selling Treasury securities into the market, but if the current rate of depletion continues, then pretty soon the Fed will have no securities to sell and, theoretically, cannot tighten policy. The Fed could sell other securities that it holds, but they are of lesser quality than the Treasury securities, and the market might demand a higher interest rate to purchase the securities than the Fed would like to offer in order to maintain production and employment levels.

Also, Congress and the Fed have paid too little attention of late to constructing a sufficient basis of statutory authority for many of the new discount window and open-market activities of the Fed since last August. Emergency circumstances, like the Bear Stearns rescue in mid-March 2008 or the extension of discount window credit to Fannie Mae or Freddie Mac in mid-July 2008, might seem to require immediate action first and adequate statutory authority afterwards, but an awkward and potentially unhealthy legal and political environment is created when such 'limits of the Fed's statutory authority' activities persist or go uncorrected for extended periods of time (see Todd 1994; Volcker 2008).

Moreover, the aggregate amounts of new Federal Reserve credit and securities swaps extended since the onset of the current crisis in August 2007, especially since the Bear Stearns rescue, have become so great (about \$480 billion, more than one-half of the Fed's balance sheet) that they threaten to hamper the Fed's capacity to comply with any multiple mandate for monetary policy objectives by restricting the amounts and types of policy instruments available to the Fed within the limits implied by any sensible inflation objective (Federal Reserve Release 2008). This caution applies even

if, thus far, the Fed generally managed to avoid expanding net Federal Reserve credit beyond normal limits (mostly between 2% and 3% per year until late 2Q2008) in a way that the public would perceive as an expansion of the monetary base. Unfortunately, the rate of expansion of net Federal Reserve credit has increased in recent weeks at this writing and now is running between 4% and 5% per year, which helps to explain the current 5% officially measured inflation rate.

VIII. Conclusion: Multiple Mandates for the Fed Remain Impossible until the Discount Window is Closed

The cumulative and lasting impact of the Fed's recent discount window and open-market activities should not be ignored in the context of the Fed's monetary policy objectives, whether one wished the Fed to pursue multiple mandates or a single mandate (inflation only or inflation primarily, for example). Inadequate thought has been given to whether restrictions should apply to the permissible activities and compensation levels of firms borrowing directly and persistently from the Fed. Careful thought about

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how to proceed is required if we wish to avoid a closer gravitation towards policy instruments usually associated with central economic planning and if we wish to retain the aggregate economic benefits of the market-oriented and low-inflation Fed policy objectives of the last two decades.

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