Taylor, John B.

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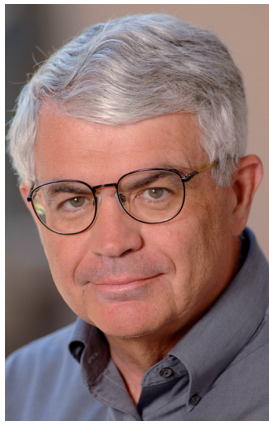
The Lack of an Empirical Rationale for a Revival of Discretionary Fiscal Policy

John B. Taylor*



A decade ago in a paper, "Reassessing Discretionary Fiscal Policy," published in the *Journal of Economic Perspectives*, I concluded that "in the current context of the US economy, it seems best to let fiscal policy have its main countercyclical impact through the automatic stabilizers … It would be appropriate in the current circumstances for discretionary fiscal policy to be saved explicitly for longer term issues, requiring less frequent changes". This was not an unusual conclusion at the time. As Eichenbaum (1997) put it, "there is now widespread agreement that countercyclical discretionary fiscal policy is neither desirable nor politically feasible", or, according to Feldstein (2002), "there is now widespread agreement in the economics profession that deliberate 'countercyclical' discretionary policy has not contributed to economic stability and may have actually been destabilizing in the past".

Despite this widespread agreement of a decade ago, there has recently been a dramatic revival of interest in discretionary fiscal policy. The purpose of this short paper is to review the empirical evidence during the past decade and determine whether it calls for such a revival. I find that it does not.

Experiences with two temporary tax rebates

The most visible explicitly countercyclical discretionary policy experiences during the past decade have been the large temporary tax rebates of 2001 and 2008. In both cases rebate payments were made to individuals and families for several months during the year, either in the form of checks, direct deposits, or temporary changes in tax withholding rates. The specific months in each year and the aggregate amounts paid in each month are shown in Table 1, where the data are stated in billions of dollars at annual rates as reported by the Bureau of Economic Analysis (2001 and 2008). In the case of 2001, the recession started in March 2001 and ended in November; in the case of 2008, the recession started in December 2007 and was ongoing well beyond August 2008. Hence, in both cases the payments were made while the recession was still ongoing and thereby exhibit virtually no response or implementation lag which was a criticism of such discretionary fiscal policy actions in the past. Lack of good timing was not a fault in either of these more recent experiences.

The macroeconomic theory that rationalizes such temporary rebate payments is that they increase the demand for consumption, stimulate aggregate demand, and thereby help get the economy on a path to recovery. But what do the data show? Figure 1 illustrates the rebate of 2008. The upper red line shows disposable personal income for the months from January 2007 through October 2008. The data are seasonally adjusted and are stated at annual rates. Disposable personal income is the total amount of income after taxes and government transfers; it therefore includes the rebate payments. Subtracting the rebate payments from the top line results in the yellow line in Figure 1, which shows what disposable personal income would have been without the rebates. Notice the sharp increase in disposable personal income in May when rebates

Table 1
Rebate payments in 2001 and 2008
(billion US dollars, annual rates)

	2001	2008
April	0	23.3
May	0	577.1
June	0	334.4
July	95.1	164.1
August	223.1	12.4
September	144.9	0
October	2.5	0

Source: Bureau of Economic Analysis.

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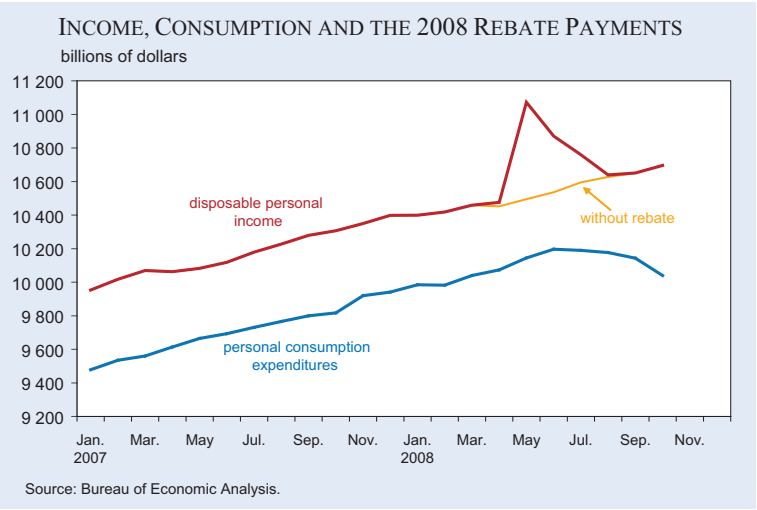
Figure 1



Source: Bureau of Economic Analysis.

were mailed or deposited in people's bank accounts. Disposable personal income then started to come down in June and July as total payments declined and by August had returned to the trend that was prevailing in April.

The lower blue line in Figure 1 is personal consumption expenditures over the same period. Observe that consumption shows no noticeable increase at the time of the rebate. As the picture illustrates the temporary rebate did little or nothing to stimulate consumption demand, and thereby aggregate demand, or the economy. In fact, recently revised data shows that consumption began declining in July 2008 and continued to decline through October.

While Figure 1 is very revealing, policy evaluation requires going beyond graphs and testing for the impact of the rebates on aggregate consumption using more formal regression techniques such as shown in Table 2. The regressions in Table 2 pertain to the period from the start of 2000 through the third quarter of 2008 and thus include both the 2001 and the 2008 rebate periods. To test whether the rebates had a positive and significant effect on consumption, I include both personal disposable income without the rebates and the rebate payments as two separate variables in the regressions. To allow for lagged effects of changes in income I include a lagged dependent variable in the equations.

The first column of Table 2 shows that the impact of the rebate is statistically insignificant and much smaller than the significant impact of disposable personal income excluding the rebate. This confirms the results illustrated in Figure 1 and extends them to the 2001 as well as the 2008 rebates. But an advantage of using regressions is that one can include other factors that affect consumption. For example, the second regression in Table 2 includes the price of oil which would be expected to have a depressing effect on consumption. It is important to try to control for oil prices because the rebates could have a positive impact once one takes account of the negative effect of oil prices, especially in 2008 when oil prices rose very rapidly in the spring and summer. Because the impact of oil price changes occurs with a lag, I tried several alternative lag lengths for the oil price variable. Table 2 reports the case where the impact was the highest so as to give the rebate variable the greatest opportunity to have a statistically significant effect. Note that while the coefficient on the rebate variable is higher with the oil price variable than without, it is still not statistically different from zero. These results are robust to changes in the sample period and specification. For example, sample periods that include only one rebate episode also show no significant effects of the rebate. Nor do specifications that use real rather than nominal variables, include other factors such as interest rates, or adjust for serial correlation rather than use a lagged dependent variable.

These results are consistent with the permanent income theory or life cycle theory of consumption in which temporary increases in income are pre-

Table 2
PCE regressions with rebate payments

Lagged PCE	.794	.832
	(.057)	(.056)
Rebate payments	.048	.081
	(.055)	(.054)
Disp. pers. income	.206	.188
(w/o rebate)	(.056)	(.055)
Oil price ($/bbl	–	– 1.007
lagged 3 months)		(.325)
R^2	.999	.999

Note: The dependent variable is personal consumption expenditures. Standard errors are reported in parentheses. The oil price is for West Texas Intermediate. The sample period is January 2000 to October 2008.

Source: Author's calculation.

dicted to lead to proportionately smaller increases in consumption than permanent increases in income. In these regressions a temporary increase in income – represented by the rebate variable – has a small and statistically insignificant effect. In contrast when the increase in income is more permanent – as represented in these regressions by the personal disposable income variable without rebate – then the change in consumption is larger and statistically significant.

The results are also consistent with earlier macroeconomic time series studies (Blinder 1981) of temporary government payments or surcharges in the 1960s and 1970s which later became incorporated in macroeconomic textbooks. Indeed, it was such permanent income theories and the empirical studies supporting them that led many economists to conclude that such discretionary fiscal policy actions are not a good policy tool. That consensus apparently broke down during the debates about the fiscal stimulus of 2008 when a number of economists wrote and testified that such a temporary rebate program would be an effective stimulus – see e.g. Elmendorf and Furman (2008), Summers (2008) and Council of Economic Advisers (2008). One reason for that change in view by some economists at the time might have been the apparent success of rebate payments made in 2001. However, those were part of more permanent multiyear tax cuts passed that same year which would be expected by the permanent income theory to boost consumption and the economy.

Of course, the permanent income and life cycle theories are approximations and do not take account of liquidity constraints which make it difficult for some consumers to borrow; thus they may spend more out of temporary income than predicted by the theory. In fact, using micro survey data Johnson, Parker and Souleles (2006) found significant effects for the 2001 rebate payments and this too may have led to a change in views around the time of the 2008 rebates. More recently Broda and Parker (2008) found that individuals in their micro survey spent a statistically significant amount of the 2008 rebates, but apparently this was not enough to move aggregate consumption as shown in Figure 1.

In sum, recent evidence on the impact of rebate payments on aggregate consumption does not provide a rationale for a revival in discretionary countercyclical fiscal policy.

Model simulations and the impact of government purchases

The ineffectiveness of the 2008 rebate payments as a stimulus to consumption has recently led to proposals to increase government purchases as an alternative stimulus. While increasing government purchases will certainly raise GDP in the short run more than temporary rebates, it is not clear that this will be any more effective in stimulating a sustained economic recovery. Indeed, even if the impact of the tax rebates was to raise consumption significantly more than shown than in Figure 1, the increase would have been temporary, probably following the pattern of the rebate in Figure 1. It is difficult to see how such a temporary blip in consumption would lead to a sustained expansion of a large dynamic economy.

There is little evidence that short government impulses will jump start an economy adversely affected by other forces. In the current recession, the economy has been pulled down by the housing slump, the financial crisis, and the lagged effects of high energy prices. Expectations of future income and employment growth are low because the effects of the financial crisis are expected to last for years into the future. Unless these effects are addressed, a short-term fiscal stimulus has little chance of causing a sustained recovery.

The theory that a short-run stimulus will jump start the economy is based on older "Keynesian" theories which do not adequately include, in my view, the complex dynamic or general equilibrium effects of a modern international economy. Nor do they usually include endogenous (or rational) expectations of the future. The problems with such models can be illustrated by again using the evidence from the rebates, and I believe similar problems arise when analyzing other stimulus proposals as well. For example, according to model simulations of Zandi (2008), GDP would have risen by about a dollar and a quarter for every dollar of a refundable one-time rebate. But Figure 1 and Table 2 show that in reality the impact was only a few pennies for each dollar and insignificantly different from zero in 2008. One needs to understand why the models were in error before using the same models to analyze the impacts of new types of proposals for 2009. In contrast, simulations of my (1992) empirically estimated multicountry dynamic model with rational expectations indicates that multiyear changes in government

spending phased in at realistic rates have a maximum government spending multiplier less than one because of offsetting reductions in the other components of GDP.

To be sure, it may be appropriate to increase government purchases in some areas including for infrastructure as in the 1950s when the interstate highway system was built. But such multiyear programs did not help end, mitigate, or prevent the recessions of the 1950s. In sum, there is little reliable empirical evidence that government spending is a way to end a recession or accelerate a recovery that rationalizes a revival of discretionary countercyclical fiscal policy.

Table 3
Simple regression coefficients of deficit components on GDP gap

Sample period	Structural	Cyclical	Total
1983:1 – 1994:4	.00	.35	.36
1983:1 – 1997:4	.14	.35	.49
1983:1 – 2007.4	.48	.34	.82
1995:1 – 2007:4	.71	.29	1.00

Source: Congressional Budget Office; Author's calculation.

Recent experience with the automatic stabilizers

The earlier widespread view of fiscal policy was that instead of focusing on discretionary countercyclical actions it should focus on the automatic stabilizers as well as on more lasting long run reforms that benefit the economy, from tax reform, to entitlement reform, to infrastructure spending, to keeping the debt to GDP ratio in line. Is there any change in the behavior of the automatic stabilizers which would change this view?

Table 3 provides evidence of how the automatic stabilizers have changed over time. It is an update of a similar table and analysis in my 2000 paper. It divides the total federal budget deficit on a quarterly basis into two components: a structural part and a cyclical part. The structural part is a quarterly interpolation of the annual number reported by the Congressional Budget Office (CBO). According to CBO methodology the structural deficit is affected by changes in tax rates or spending programs such as the 1982 tax rate cuts, the 1993 tax rate increases and the 2001 tax rate cuts. The structural deficit is also affected by changes in the economy such as changes in the income distribution or the share of income in different tax categories. The cyclical part is computed in Table 3 as the difference between total deficit and the structural part.

To measure how the automatic stabilizers have changed over time I regressed each of these measures (structural, cyclical and total) as a percentage of GDP separately on the percentage GDP gap. I used the CBO measure of potential GDP to compute the GDP gap which results in a reasonable description of the ups and downs of the economy at a business cycle frequency. I report the slope coefficients from each of these regressions in Table 3 for several different sample periods. All the coefficients are highly statistically significant. As computed, the sum of the coefficients in the first two columns should equal the coefficient in last column except for rounding errors.

Table 3 shows that there indeed have been large changes in the relation between these measures of the deficit and the GDP gap. While the coefficient on the cyclical component has remained fairly constant around 1/3, the coefficient on the structural component has increased dramatically over time. In fact, the cyclical movements in the structural deficit have overtaken the cyclical movements in the cyclical deficit. More research is needed to determine exactly why this change has occurred. It is important to determine whether this high responsiveness will continue into the current recession. If so, the automatic stabilizers will be very powerful and the deficit will increase significantly on this account. In any case, Table 3 provides no evidence to change the "widespread agreement" of a decade ago to focus fiscal policy on the automatic stabilizers rather than on discretionary countercyclical actions. It may suggest the opposite.

Changes in monetary policy effectiveness

Another reason for the widespread view a decade ago about fiscal policy was that monetary policy had improved after the late 1960s and 1970s and played an essential countercyclical role as it achieved both greater price and output stability during the great moderation. However, there were also concerns expressed about the limits of monetary policy if the zero bound on interest rates were to be reached as it

had in Japan in the 1990s. The recent change in monetary policy in the United States and the resulting constraint of the zero bound is another reason why some are calling for discretionary fiscal policy actions.

In my view, however, the experience during the past decade does not show that monetary policy is ineffective or that fiscal policy is more appropriate when the short term interest rate reaches the lower bound of zero. Indeed, the lesson from Japan is that it was the shift toward increasing money growth – quantitative easing – in 2001 that finally led to the end of the lost decade of the 1990s. It was certainly not discretionary fiscal policy actions. Increasing money growth – or simply preventing it from falling as in the Great Depression – remains a powerful countercyclical policy.

While a full treatment of monetary policy in the current environment is well beyond the scope of this paper, there is no evidence in the past decade that suggests that monetary policy has run out of ammunition and must be supplemented by discretionary fiscal actions.

Conclusion

A decade ago there was widespread agreement that fiscal policy should avoid countercyclical discretionary actions and instead should focus on the automatic stabilizers and on longer term fiscal reforms that positively affect economic growth and provide appropriate government services, including infrastructure and national defense. In this paper I briefly summarized the empirical evidence during the past decade on (1) the temporary rebate programs of 2001 and 2008, (2) macro-econometric model simulations, (3) the changing cyclical response of the automatic stabilizers, and (4) the role of monetary policy in a zero interest situation. Based on this review I see no empirical rationale for a revival of countercyclical discretionary fiscal policy.

References

Blinder, A. (1981), "Temporary Income Taxes and Consumer Spending", *Journal of Political Economy* 89, 26–53.

Broda, C. and J. Parker (2008), *The Impact of the 2008 Tax Rebates on Consumer Spending: A First Look at the Evidence,* Northwestern University, mimeo.

Bureau of Economic Analysis (2001), *Personal Income and Outlays,* September, http://www.bea.gov/newsreleases/national/pi/2001/pi0901.htm.

Bureau of Economic Analysis (2008), *Personal Income and Outlays,* October, http://www.bea.gov/newsreleases/national/pi/2008/pi0808.htm.

Congressional Budget Office (2008), *Options for Responding to Short-Term Economic Weakness,* January, Washington DC.

Council of Economic Advisers (2008), *The Case for Fiscal Policy to Forestall Economic Slowdown,* Executive Office of the President, mimeo.

Eichenbaum, M. (1997), "Some Thoughts on Practical Stabilization Policy", *American Economic Review* 87, 236–239.

Elmendorf, D. W. and J. Furman (2008), *If, When, How: A Primer on Fiscal Stimulus,* Brookings Institution, mimeo.

Feldstein, M. (2002), *The Role for Discretionary Fiscal Policy in a Low Interest Rate Environment,* NBER Working Paper W9203.

Johnson, D., J. Parker and N. Souleles (2006), "Household Expenditure and the Income Tax Rebates of 2001", *American Economic Review,* 96, 1589–1610.

Summers, L. (2008), *Fiscal Stimulus Issues,* Testimony before the Joint Economic Committee, January 16, Washington DC.

Taylor, J. B. (1992), *Macroeconomic Policy in a World Economy,* New York: W.W. Norton.

Taylor, J. B. (2000), "Reassessing Discretionary Fiscal Policy", *The Journal of Economic Perspectives* 14, 21–36.

Zandi, M. (2008), *Economic Stimulus for Small Business: A Look Back and Assessing Need for Additional Relief,* Testimony before House Committee on Small Business, July 24, Washington DC.