

Direct Stimulus Payments to Individuals

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Abstract

This chapter proposes a direct payment to individuals that would automatically be paid out early in a recession and then continue annually when the recession is severe. Research shows that stimulus payments that were broadly disbursed on an ad hoc (or discretionary) basis in the 2001 and 2008–9 recessions raised consumer spending and helped counteract weak demand. Making the payments automatic by tying their disbursement to recent changes in the unemployment rate would ensure that the stimulus reaches the economy as quickly as possible. A rapid, vigorous response to the next recession in the form of direct payments to individuals would help limit employment losses and the economic damage from the recession.

Introduction

Direct payments to individuals are an effective way to stimulate spending and making these payments automatic would guarantee that stimulus arrives early in a recession. These two arguments are supported by a growing body of high-quality research on the effects of stimulus to individuals in the past two recessions, in 2001 and 2008–9. This chapter proposes establishing direct payments to individuals as an automatic stabilizer. The lump-sum annual payments would be made to individuals, regardless of their income level, when the national unemployment rate rises by at least 0.50 percentage points. The amount of the individual payments would be set such that total payments equaled 0.7 percent of GDP, or 1 percent of personal consumption expenditures (PCE). Payments in subsequent years would be made only in the case of severe, prolonged recessions that lead to cumulative unemployment rate increases of at least 2.0 percentage points. Automatic stimulus payments to individuals would provide a rapid, frontline defense early in a recession and a commitment to sustained support in a severe recession.

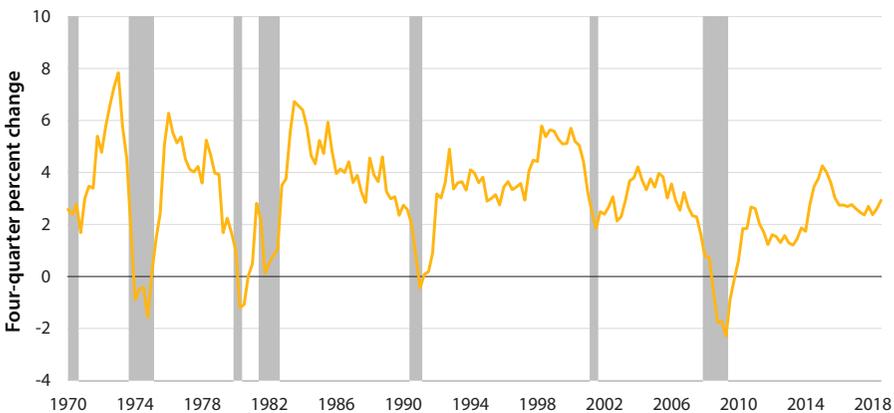
Growth in consumer expenditures slows sharply during recessions—and in many cases turns negative (figure 1). Consumer expenditures make up about 70 percent of aggregate demand; a pullback in spending by consumers can lead to employment losses and reduced production. Consumers are therefore a key focus of efforts to stabilize the economy, and policymakers have often used stimulus payments to individuals (also referred to as tax rebates) and temporary reductions in taxes to support household spending during recessions.

In fact, during the Great Recession and the recovery, individuals received more than \$420 billion in broad-based stimulus from the federal government through three large, consecutive policies: a stimulus payment in 2008, a tax credit in 2009 and 2010 (the Making Work Pay tax credit), and a payroll tax reduction in 2011 and 2012. These programs were broad based in the sense that they applied to many households with few qualifications, such as having a minimum amount of income. In each case, the administration and Congress crafted the specifics of the stimulus program in real time, along with other fiscal policies, including targeted discretionary changes in taxes and transfers to support individuals, businesses, and state and local governments. The range of stimulus programs in the Great Recession has supported a rich body of research on the efficacy of various tools.

Automatic stabilizers are already an important feature of fiscal stabilization policy, two of the most notable examples being progressive income taxation

FIGURE 1.

Real Personal Consumption Expenditures, 1970–2018



Source: Bureau of Economic Analysis (BEA) 1969–2018; author's calculations.

Note: Shaded areas denote recessions.

and unemployment insurance (UI). Incomes tend to decline in recessions, but given that marginal income tax rates are lower at lower income levels, taxes fall more than income does. The disproportionate decline in income tax burden helps to offset some of the loss in disposable income. The UI system, by contrast, is a more narrowly targeted automatic stabilizer that supports consumption for eligible workers who lose their jobs. In a recession, as the unemployed rise in numbers so do payments from UI. In both cases, these automatic stabilizers (and others including the Supplemental Nutrition Assistance Program [SNAP], formerly the Food Stamp Program) are often paired with additional discretionary measures, such as temporary tax cuts or temporary extensions of UI benefits.

The choice between automatic and discretionary fiscal policy depends on several factors. First, we want to do only what we know works, and the evidence shows that direct, lump-sum payments are an effective fiscal tool. Adding a new automatic stabilizer would be a commitment to increase government support to households in a recession. Improved stabilization—such as shortening the length or severity of a downturn—would limit the economic costs of a recession. Even so, stabilizers are unlikely to pay for themselves. Sufficient fiscal space for such policies could require either higher taxes or lower transfers outside of recessions. In this case, one could view the budget for the automatic stimulus payments as a rainy-day fund for payments to individuals that would be administered by the government. The fund would accrue savings in good times and make payments in bad times. Given the thin financial buffers of many households, the direct stimulus payments would increase households' resiliency during a recession.

Making the stimulus payments to individuals fully automatic could have some drawbacks. One concern is that it might give the incorrect appearance that policymakers are inactive in the face of recession. One response to this concern would be to implement the stimulus payments in two legislative phases. First, legislation prior to a recession would determine the features of prospective stimulus payments, such as size and targeting, and would allow the preparation of administrative systems. Then when macroeconomic conditions warrant (according to a prespecified economic trigger), Congress would vote on whether to enact the stimulus payments. The precommitment to the form and delivery of payments would increase the speed with which stimulus can be distributed but still allow Congress to control the exact timing. The development of macroeconomic triggers and schedules for additional payments would provide additional guidance to policymakers, even if the implementation is not fully automatic.

Policymakers would only want to make automatic the policies that have proven to be cost effective in the past. In turn, the effectiveness of stimulus payments in a recession largely depends on the spending response of households. A temporary reduction in taxes or increase in transfers, if either action boosts spending, can mitigate the job losses, underutilization of productive resources, and widespread pessimism in recessions. Nonetheless, simple economic models with forward-looking consumers and well-functioning financial markets tend to predict a small increase in spending from a temporary boost to income. In fact, some models even predict that individuals would save all of any rebate (yielding what is known as Ricardian equivalence), under the assumption that people would have to repay the debt-financed stimulus with higher taxes in the future. Empirical evidence (summarized below) across numerous research studies of the Great Recession strongly suggests that at least some forms of stimulus to households can measurably boost spending in the near term.

The Challenge

EVIDENCE ON THE EFFECTS OF DIRECT STIMULUS PAYMENTS PROVIDED TO INDIVIDUALS

Mounting evidence in the past decade finds that broadly distributed payments to individuals increase spending during a recession and help stabilize the economy. This new research has overcome a methodological challenge: previously, a challenge in showing the effectiveness of these direct payments was the difficulty in distinguishing the positive effects of the direct payments from the negative effects of the recession. When these stimulus payments are disbursed, the overall economy is weakening and so the trajectory of total spending can make the stimulus look ineffectual. In other words, a simple comparison of consumer spending before and after a stimulus payment to individuals is not enough to determine whether stimulus is effective.

A novel feature in the delivery of stimulus payments in 2001 and 2008 provided an opportunity to tease apart and separately identify the effect of the payments. The resulting studies have bolstered the view that such payments are an effective and fast-acting stimulus. Due to administrative constraints on the number of payments that could be sent out at one time, the timing of individuals' payment in 2001 and 2008 was determined by the last two digits of their Social Security number. This random variation in the timing provided a way to measure spending before and after a stimulus payment under the *same* macroeconomic conditions. Comparing the spending of individuals who have (randomly) already received their payment with the spending of those who will (randomly) receive it in a

BOX I.

Stimulus Payments to Individuals During the Great Recession

The mix of discretionary stimulus to individuals in the Great Recession and subsequent research on the effects has provided several lessons on the best ways to structure stimulus payments. Early in the recession, the Economic Stimulus Act of 2008 enacted on February 13, 2008, included one-time recovery rebates to individuals. Most single tax filers received a \$600 payment while couples that were married and filed jointly received \$1,200 at some point between May and July of 2008. Filers received an additional \$300 for each qualifying child. The rebates were phased out for high-income earners, while individuals with nontaxable Social Security or pension income were eligible for smaller lump-sum payments.

After the financial crisis and recession intensified in the second half of 2008, a large array of fiscal stimulus policies was used. On February 17, 2009, the Making Work Pay tax credit, a broad-based, two-year tax cut for individuals, was signed into law as one part of the expansive American Recovery and Reinvestment Act of 2009 (ARRA). The Making Work Pay tax credit was implemented via lowering withholdings, so the annual tax savings of \$400 for singles and \$800 for married couples was spread out in smaller amounts across pay periods. As the Making Work Pay tax credit was set to expire, a temporary 2-percentage-point cut in the payroll tax for 2011 was signed into law on December 17, 2010, in the Tax Relief, Unemployment Insurance Reauthorization, and Job Creation Act of 2010. A year later, on December 23, 2011, The Temporary Payroll Tax Cut Continuation Act of 2011 extended the payroll tax cut for the first two months of 2012, and then on February 22, 2012, the Middle Class Tax Relief and Job Creation Act of 2012 extended the payroll tax cut through the end of 2012.

Notably, this last stimulus policy required three legislative actions, underscoring how precommitment could simplify the process and reduce uncertainty for households. As with the tax credits in 2009 and 2010, the reduction in payroll taxes was spread throughout the year in the form of larger paychecks. One difference is that this last

stimulus was proportional to income (up to the taxable maximum), whereas the earlier stimulus to individuals were closer to a lump-sum payment. The temporary payroll tax cut was allowed to expire at the end of 2012. Across these three stimulus programs more than \$420 billion in additional income was sent to individuals from 2008 to 2012.

matter of weeks helps to isolate the effect on spending of having (versus not having) the stimulus payment.

Studies of the 2001 and 2008–9 recessions have yielded stimulus spending estimates that are uniformly positive. Johnson, Parker, and Souleles (2006) analyzed Consumer Expenditure Survey data in their study of the 2001 tax rebates. They used the random variation in timing of payments to estimate that, on average, households spent 20 to 40 percent of their rebates on nondurable goods in the three-month period when the rebate was distributed. Within the first six months, individuals spent nearly two thirds of the rebate on nondurable goods. In their follow-up study of the 2008 rebate, Parker et al. (2013) estimate that 12 to 30 percent of the rebate was spent on nondurables within three months of receipt. Including durables spending, 50 to 90 percent of the rebate was spent over three months. With the same data, Misra and Surico (2014) estimate that 40 to 50 percent of the households who received a payment in 2001 or 2008 did not change their spending, but about 20 percent spent half or more of their stimulus. Other analyses using different data sources and randomized timing also find that the 2001 and 2008 tax rebates quickly boosted consumer spending. Broda and Parker (2014) use transactions data in 2008 for a narrower set of consumer goods and find a 10 percent increase in spending in the week of receipt. Using credit card data, Agarwal, Liu, and Souleles (2007) find that initially the 2001 rebate led to a reduction in debt but then credit card spending rose by about 40 percent of the rebate amount within nine months. Altogether, these studies find a sizeable boost to spending from the payments.

After making the case for sending income to many households in a recession, the next challenge is structuring the payments to most effectively increase demand. A key finding that draws on results in multiple research studies is that larger one-time payments lead to more spending, more quickly, than payments that are smaller or more spread out. The composition of spending induced by the payments in 2001 and 2008 is one piece of the explanation. Parker et al. (2013) find that the larger payments in 2008 (almost twice the size of the payments in 2001) led to a large increase in durable spending

within three months of receipt. In 2001 most of the spending response came from nondurables and occurred over six months. Similarly, Misra and Surico (2014) find that some people increased their durable purchases by more than the amount of their rebate, for example by using the stimulus to make a down payment on a motor vehicle.

Another source of evidence in favor of large one-time payments comes from a method developed by Shapiro and Slemrod (2003a, 2003b, 2009) that asks individuals directly in surveys whether they planned to “mostly spend,” “mostly save,” or “mostly pay off debt” with the stimulus. With the one-time payments in 2001 and 2008, they found that about 20 percent of adults said that they had “mostly spent” the rebates.¹ When this method was applied to the Making Work Pay tax credit in 2009–10, the spending response was more muted. Sahm, Shapiro, and Slemrod (2012) find that the smaller, repeated boost to income from lower tax withholding led to less additional spending than the one-time payments. The share of people who planned to “mostly spend” the lower withholding from Making Work Pay was about two-thirds the share who planned to spend the tax rebate. The structure of the stimulus payments—not the deterioration in macroeconomic conditions between the spring of 2008 and the spring of 2009—appears to have dampened the spending response. In both years retirees received a small, lump-sum payment, and in both years their self-reported spending rates were similar. In addition, among non-retirees a hypothetical one-time payment elicited a spending rate higher than the withholding change (similar to the effect observed for the 2008 tax rebate). Similarly, Sahm, Shapiro, and Slemrod (2015) find a similarly small spending response to the payroll tax cut.²

The evident lack of public awareness of the more gradual stimulus like the Making Work Pay tax credit—as documented in Sahm, Shapiro, and Slemrod (2012)—raises some additional questions. In particular, one role of economic stabilization policy is to assuage the negative views on the economy. Pessimism and uncertainty could lead households to pull back on spending and instead save as a precaution. Durables spending, which can be more easily delayed than nondurable necessities, is particularly sensitive to precautionary savings motives. A stimulus payment—even disbursed annually—is not large enough to make up for a job loss but it could temper the need to build up extra savings as a precaution. Stimulus that is not seen or recognized by individuals is unlikely to affect their sentiment and tendency to engage in precautionary saving. The direct boost to spending is the key criterion for efficacy of stimulus payments, but the saliency (or sentiment) effects are also worth considering.

RELEVANT EVIDENCE FROM OTHER CONSUMPTION RESEARCH

The finding that additional income boosts spending on receipt is confirmed by other research, not specifically related to stimulus payments or discretionary tax cuts. Moreover, the initial spending response does not appear to depend on the additional income being a surprise to households (as has been the case with stimulus payments in the past). Simple, forward-looking economic models predict an increase in spending only if the temporary increase in income is unexpected. One concern with making stimulus payments automatic is that they would be less of a surprise to households than discretionary stimulus payments. Yet, research shows that additional income will often generate additional spending, even if individuals anticipate the income and it is a regular, large payment, such as the annual Alaska Fund payments (Kueng 2018) or the Earned Income Tax Credit (Aladangady et al. 2018). Empirically, spending is tied to the receipt of the income, a relationship that does not appear to differ much across predictable and unpredictable income.

Research findings are mixed on the benefits of targeting stimulus to low-income individuals. A common—but not universal—finding is that households with low liquid assets relative to their income tend to spend more (and more quickly) out of additional income than those households with ample liquidity. Thus, as argued by Kaplan and Violante (2014), even high-income households with illiquid assets, such as housing wealth or retirement savings accounts, would spend out of stimulus income. Targeting current low-income or low-wealth households may not identify the households most likely to spend the stimulus, which could include some wealthy households.³ However, it would be difficult to target stimulus payments to individuals with low liquidity, since the government does not readily have information about households' assets.

The Proposal

This section lays out the case for direct stimulus payments to individuals to become part of our system of automatic stabilizers, building on the evidence in the previous sections that additional income translates quickly into additional spending. I discuss several economic considerations that militate in favor of automatic stimulus payments. I then propose a specific policy to deliver automatic fiscal stimulus through direct payments to individuals.

ECONOMIC CONSIDERATIONS RELEVANT TO AUTOMATIC PAYMENTS

There are three reasons why I argue that direct payments should be made into an automatic stabilizer. First, automatic stimulus payments would

provide a policy precommitment to broadly support aggregate demand in a recession. Second, analysis and deliberation over the size, structure, and funding of stimulus payments, as well as the development of administrative procedures to disburse payments, could occur at a time other than the crisis of a recession. Finally, automatic payments could also commit fiscal policymakers to maintain support if the recession is severe and the recovery is drawn out. The payroll tax cut, the last of the broad-based household stimulus after the Great Recession, expired in the first quarter of 2013. At that time, the national unemployment rate was still 2.7 percentage points above its prerecession level—a sign that stimulus was withdrawn while the economy was far from a full recovery.⁴ Fiscal support during the Great Recession was less than in prior recessions, and the additional stabilization later in the recovery was largely due to monetary policy.

Putting administrative systems in place ahead of time could ensure that the stimulus is delivered more quickly and more broadly. It is also important to minimize errors and ensure that only intended populations receive the payment. With the 2008 stimulus payments, the Internal Revenue Service (IRS) estimated that it would require 60 days to program the system to calculate payments after the legislative details were settled (Joint Committee on Taxation 2008). In addition, the payments could not be disbursed during the peak tax filing system. Thus, without advance preparation of the system, it is not currently possible to send out payments from late January to mid-May each year.

Moreover, advance planning could also be used to reach a wider population than those filing income tax returns. A key impediment to sending out payments is the lack of a centralized, up-to-date address or electronic funds transfer information on individuals. The IRS maintains this information for tax filers, as does Social Security for all its benefit recipients. Collaboration between the IRS, the Social Security Administration, and other agencies that interact with non-filers could also extend the receipt of payments to more individuals than tax filers and ensure that individuals receive only a single payment from the government.

Automatic stimulus payments in recessions and recoveries—paid for by higher taxes during expansions—would provide additional liquidity when uncertainty about employment and income is high. Many households have low savings and even outside of recessions would have difficulty paying a modest unexpected expense (Board of Governors of the Federal Reserve 2018). Given the thin financial buffers of many households and the heightened uncertainty in a recession, automatic stimulus payments could be a popular form of rainy-day savings and support to spending.

Automatic stimulus payments to individuals would also be a broad-based, transparent source of macroeconomic stabilization. Lump-sum payments disbursed annually to households based on macroeconomic conditions would be a more direct, easier-to-understand form of stimulus than changes in interest rates or asset purchases via monetary policy. Income payments would go directly to individuals and would not rely on propagation through financial and labor markets. Monetary policy is an effective way to stabilize business cycles—lowering interest rates to increase demand during a recession—but its initial direct effects vary across individuals (depending, for example, on their assets and debts) and the overall, beneficial effects are often hard to communicate.⁵ The broad-based nature of the stimulus payments would also make it easier to explain the details of the program to the public, increasing its salience and effectiveness. Recessions coincide with heightened pessimism and the stimulus payments would directly counter that pessimism. Understanding how the government is directly supporting individuals in the recession could create public support for more targeted policies or for those policies with less direct effect on individuals.

POLICY PROPOSAL

I propose a new automatic stimulus payment—lump-sum annual payments to individuals—that would be triggered automatically by a rise in the unemployment rate. Key details of the proposal are as follows:

- Automatic lump-sum stimulus payments would be made to individuals when the three-month average national unemployment rate rises by at least 0.50 percentage points relative to its low in the previous 12 months.
- The total amount of stimulus payments in the first year is set to 0.7 percent of GDP.
- After the first year, any second (or subsequent) year payments would depend on the path of the unemployment rate.
 - An increase of 2.0 percentage points or more from the initial unemployment rate would result in a second year's payments with aggregate stimulus again equal to 0.7 percent of GDP.
 - After the second year and after the unemployment rate has peaked (whichever comes later), the total stimulus amount would be scaled down as the unemployment rate declines.
 - Annual payments would continue in the third (and subsequent) years until the unemployment rate is no more than 2.0 percentage points above the level at the time of the first payment.

- Eligibility for direct stimulus payments would not be restricted to households with taxable income.
- All adults would receive the same base payment, and in addition, parents of minor dependents would receive one half the base payment per dependent.

Each aspect of the policy, including its administration, is discussed in more detail below. This section concludes with an example of how the automatic payments would have been applied in the Great Recession and recovery. These automatic stimulus payments to individuals should be thought of as a first line of defense in the recession and not a replacement for discretionary fiscal policy or other automatic stabilizers, which could add to stimulus as macroeconomic conditions evolve.

Trigger to Start Automatic Stimulus Payments

This proposal requires an explicit trigger that will turn on during a cyclical downturn. This trigger could be used to automatically disburse the payments or to initiate a congressional vote on payments. In this proposal, the trigger is based on changes in the national unemployment rate.

The direct stimulus payments to individuals begin after a 0.50 percentage point increase or more in the three-month moving average of the unemployment rate relative to its low in the prior 12 months (figure 2). The three-month average smooths out some of the monthly random variation in the rate and avoids false positives, such as stimulus payments made outside economic downturns. The trigger depends on recent changes in the unemployment rate, as opposed to a fixed unemployment rate threshold, because this type of trigger accommodates changes over time in the natural rate of unemployment.⁶ Even a modest rise in the unemployment rate such as 0.50 percentage points (shown by the orange dashed line in figure 2) has occurred only during or closely following recessions. In other words, by this rule the stimulus payments would have been triggered only in recessions.⁷

Based on past recessions (and the data available to policymakers at the time), the change in the unemployment rate would be a highly effective trigger for the stimulus payments. Early in each recession since 1970, the unemployment rate rose at least a 0.50 percentage points (figure 3).⁸ On average, payments would have been triggered within three months of the start of the past six recessions. The automatic trigger would have been met four months after the 2008–9 recession began and two months after the 2001 recession began. The specific trigger in this proposal—comparing the three-month average unemployment rate to its low over the prior 12 months—signals a recession well before the official dating of a recession.

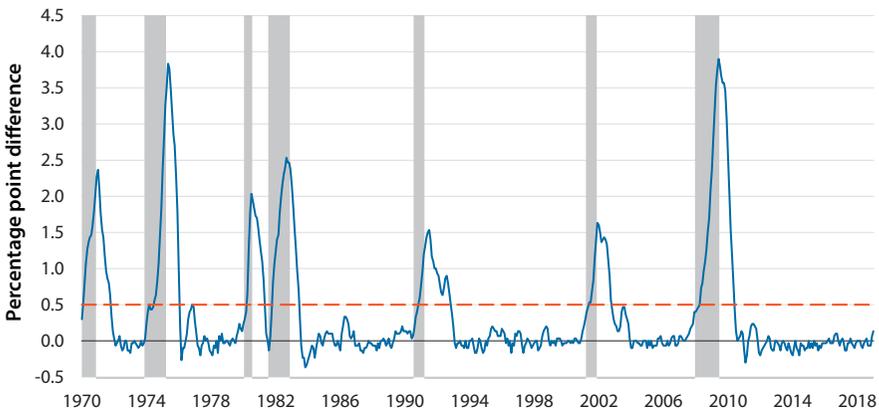
The proposed trigger would reliably deliver stimulus to the economy early in recessions.

The unemployment rate has other advantages as the basis for the trigger in an automatic stabilizer. The unemployment rate has been used as a core signal of labor market strength and overall economic well-being, and has been measured consistently for many decades. It is a timely measure: a given month's unemployment rate estimate is available at the beginning of the subsequent month. By contrast, output growth is measured with a lag, is revised frequently, and, given its volatility, would require waiting for at least two to three weak quarters to signal recession. Partly due to these advantages, the U.S. government has extensive experience using the unemployment rate as a trigger for social programs. Making the stimulus payments to individuals automatic once the unemployment rate trigger is met would guarantee that stimulus flows to the economy quickly. If administrative systems are already in place to disburse payments, then individuals would receive their automatic payments early in the recession. In contrast, for discretionary payments work also has to be done on both the legislation and the logistics before stimulus can be delivered to households.

There are some concerns with using the unemployment rate as a trigger to start stimulus payments. First, the unemployment rate tends to lag the business cycle, such that unemployment usually peaks after the recession has ended. The slow-moving nature of the unemployment rate implies

FIGURE 2.

Unemployment Rate (3-Month Average) Relative to Prior 12-Month Low, 1970–2018



Source: BLS 1969–2019; author's calculations.

Note: Shaded areas denote recessions. Dashed orange line denotes the proposed trigger threshold. Calculation uses real-time estimates of the unemployment rate.

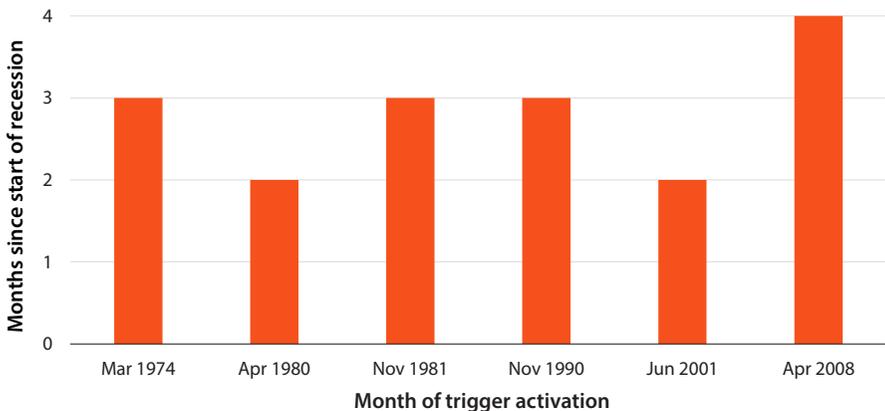
that it gives little advance warning of recessions. Still, as seen in figure 3, this trigger would signal a downturn nearly immediately and long before it has been officially recognized. Second, the rise in unemployment prior to a recession does not predict the severity of the recession. For example, the increases in the unemployment rate prior to the 2001 and 2008–9 recessions were similar, even though the subsequent rise during and after the 2008–9 recession was more than double the rise with the 2001 recession. In other words, a prerecession unemployment rate rise is not a good guide to the shortfall in demand in a recession and speaks to having a plan for additional payments in severe recessions. Finally, one may worry about whether people leaving the labor market or reentering it mask the quality of the signal from the unemployment rate, but, at least at the start of recessions, the change in the unemployment rate is a remarkably reliable signal.

Aggregate Amount of Stimulus Payments

Because the goal of the direct payments to individuals is macroeconomic stabilization and shallower recessions, the total amount of the stimulus is a core concern. During the initial months of the recession when the first payment arrives, the eventual severity of the downturn will be unknown. And, in fact, one goal of such fast-acting stimulus is to help stave off the negative dynamics that often accompany recessions—that is, the stimulus can itself reduce the severity of the downturn. Fiscal stimulus can provide

FIGURE 3.

Date that Unemployment Rate Trigger Activated Relative to the Start of Selected Recessions



Source: BLS 1969–2019; author's calculations.

Note: Calculation uses real-time estimates of the unemployment rate.

additional spending power to those who are liquidity constrained and counteract the rise in precautionary savings that might otherwise lead to a reduction in spending, particularly for purchases of durables that can more easily be delayed.

I propose setting the total dollars of first-year direct payments to address the weakness in a typical recession. Since the mid-1970s, a typical recession has entailed a slowdown in real consumer spending growth—on a four-quarter basis—of about 2 percentage points, with substantially larger slowdowns in growth in 1973 and 2008. In this proposal, direct payments that are half of a typical recession’s slowdown in consumer spending growth—equal to approximately 1 percent of real PCE (or about 0.7 percent of GDP)—would be a substantial commitment to stabilize the economy.⁹ This additional income, on aggregate, is on the high end of past discretionary payments. By comparison the 2001 tax rebates were about 0.4 percent of GDP, and the payments in 2008 were about 0.7 percent of GDP (Shapiro and Slemrod 2003b, 2009).

Several considerations speak in favor of a large initial stimulus to households. First, the costs of recession, whether at the macroeconomic level or at the household level, are substantial.¹⁰ Thus, vigorous efforts to stabilize demand early in a recession would have large payoffs. Second, larger aggregate stimulus translates into larger individual payments. Large direct payments to individuals are spent more quickly since their size can support the purchase of (or the down payment on) large consumer durables, such as automobiles (Parker et al. 2013). For consumers, large payments are also more salient than small ones (Sahm, Shapiro, and Slemrod 2012), allowing them to more effectively counter precautionary saving motives and bolster popular support for stimulus. Finally, these direct stimulus payments—especially if made automatically—would be some of the earliest support to the economy in the recession. Most of the support from other automatic stabilizers, including progressive income tax rates or UI benefits, arrive later than the initial months of a recession. Large, direct payments to individuals would provide an aggressive, frontline defense against the negative effects of a recession.

Structure and Targeting of Payments

With the aggregate amount of stimulus set, the next step is to structure the individual payments to maximize the immediate boost to spending. From the empirical research on the 2001 and 2008 to 2012 stimulus policies, the propensity to spend out of the stimulus payments is likely to be highest for one-time, lump-sum payments (Sahm, Shapiro, and Slemrod 2012). In addition, one-time payments add stimulus spending more quickly to the

economy than a change in tax withholding (which would spread fiscal stimulus throughout the year). Consider two hypothetical \$100 billion stimulus packages. The first is paid out in one-time payments (with all individuals receiving checks within 10 weeks) and the second is spread out evenly during the year in the form of higher take-home paychecks (via lower tax withholding). Even if individuals responded to both forms of stimulus in the same way—in other words, if the marginal propensity to consume (MPC) out of each dollar was identical—it would not be until early in the next year that the full stimulus spending occurred under the second option (figure 4). The delay in payments necessarily delays individuals’ spending. In contrast, the increase in spending from one-time payments would occur within three months (Parker et al. 2013). Furthermore, because research shows that the individual spending response is larger from one-time payments than from changes in withholding (Sahm, Shapiro, and Slemrod 2012), the overall stimulus boost would be both larger and more rapid. The faster timing and higher spend rate favor one-time payments for macroeconomic stabilization.¹¹

The speed—supported by empirical research—with which direct payments increase aggregate demand is particularly important. To meet its primary objective macroeconomic stabilization needs to occur when resources are underutilized in the economy. The outright declines in output occur early

FIGURE 4.

Cumulative Spending by Disbursement Form and Spend Rate



Source: Author’s calculations.

Note: Spending is based on a \$100 billion stimulus. The MPC, which determines the spend rate, for lump sum payments is set at 0.7, with 60 percent of the spending response in the first month, 30 percent in the second month, and 10 percent in the third month. The MPC for withholding is alternately assumed to be 0.5 or 0.7.

in recessions, and stimulus that quickly supports aggregate demand would be particularly beneficial. The direct spending out of stimulus payments to individuals is followed by indirect (i.e., second-round or multiplier) effects, in which production responds to the initial boost to spending. These multiplier effects are likely larger in a severe recession when more slack exists in the economy (and even more so when monetary policy is constrained at the zero lower bound). Stimulus demand, then, is less likely to crowd out other spending (Auerbach and Gorodnichenko 2012). This finding argues both for a rapid first payment and for a commitment to repeated payments in a severe recession until the lingering economic weakness has subsided. Finally, as mentioned previously, other forms of stabilization policy—for example, UI benefits or reductions in interest rates via monetary policy—tend to work with a lag, so stimulus payments offer one of the most rapid responses in a recession. Thus, the direct payments to individuals should be structured to maximize timeliness.

The direct stimulus payments to individuals would be made broadly available and would not be restricted to those working or with tax liabilities. The broad nature of the recipient pool aligns with the broad negative economic effects of recessions. A defining feature of a recession is the pullback in demand across a wide range of households: recessions lead high- and low-income households alike to sharply reduce their assessments of buying conditions (figure 5). Stimulus intended to boost demand in a recession should therefore encompass a range of households.¹² Generally, the fastest spending responses to additional income are from low-liquidity individuals, but targeting liquidity is more difficult in existing administrative data, and low liquidity also exists among higher-income households.

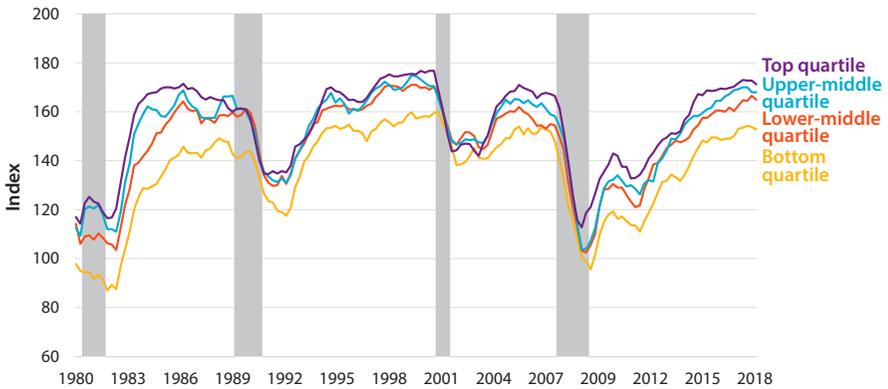
However, some criteria are needed for eligibility for stimulus payments. Individuals with any taxable or nontaxable income (like Social Security or Veterans Affairs benefits) would be eligible, though the stimulus payments would not be tied directly to tax liability.¹³ (Non-filers without any income would also be eligible, though locating them can be a challenge.) The presence of dependent children would increase the amount of the stimulus payment. One important criterion would be that no individual (or dependent) receives more than one payment in a round of stimulus payments. Further limitations on eligibility, such as residency requirements or no unpaid taxes, could be added to the legislation authorizing the automatic stimulus payments.

Administration and Marketing of Stimulus Payments

The closest existing structure to the proposed stimulus has been the advance payment of refundable, temporary tax credits. Given its experience with

FIGURE 5.

Index of Consumer Purchasing Sentiment by Household Income Quartile, 1980–2018



Source: Survey of Consumers, University of Michigan 1980–2018.

Note: Shaded areas denote recessions. Index for each income group is the percent of consumers responding that they think it is a "good time to buy major household items" minus the percent reporting it is a bad time to buy, plus 100. Values above 100 indicate that more consumers think it is a good time to buy durable goods. Series is a four-quarter moving average.



past discretionary stimulus payments and access to payment information of filers, the IRS would be the appropriate agency to review and approve disbursement of the stimulus payment. Making the payments automatic and setting the structure in advance would allow for administrative systems to be designed in advance. This would be especially important if the start of the recession coincided with the annual processing of tax returns, when administrative demands on the IRS are high.

An important administrative challenge in delivering broad-based stimulus is that individuals without taxable income, such as many Social Security beneficiaries, would not normally file tax returns. Despite multiple outreach efforts, Treasury estimates that only 59 percent of the 20 million Social Security and Veterans Affairs benefits recipients filed a stimulus-only return in 2008 and received a payment (U.S. Department of the Treasury [Treasury] 2009). Another 24 percent were claimed as dependents on other tax filings, but that left 17 percent who were eligible but did not receive the stimulus. Getting information—and instructions on how to complete the forms—to eligible non-filers was one of the areas where the IRS viewed its initial guidance as incomplete (Treasury 2008). A commitment to cover these non-filers in future stimulus payments would allow time for more coordination with Social Security, Veterans Affairs, and other agencies delivering other benefit payments. Social Security, for example, has information to deliver payments, but only to those receiving

benefits from Social Security. A centralized system for approving stimulus payment recipients, overseen by the IRS, could use payment information (mailing addresses or electronic funds transfer) from various agencies. The coordination would expand the reach of the stimulus payments and still avoid duplication of payments.

The marketing of the stimulus is another aspect of administering the payments. The terms in which the stimulus is described are important. Studies from psychology (Epley, Mak, and Idson 2006) have argued that describing the additional income as a “tax rebate” yields a smaller spending response than framing it as a “bonus.” Leigh (2012) found a larger response to stimulus payments in Australia than in the United States during the Great Recession and argued that the difference may have been due to the Australian government calling their payments “bonuses,” though of course it is difficult to rule out other differences between the two countries as the determining factor.

Sending out information about the stimulus payments to recipients may also be important. The U.S. Treasury sent letters to individuals about the 2008 stimulus payments prior to disbursement, but there were no information campaigns to recipients of the subsequent Making Work Pay tax credit and payroll tax cut. Awareness of the stimulus would highlight the government support for individuals in the recession, but it is unclear how this affects the spending response. Notably, none of the empirical studies of the earlier stimulus payments found evidence of consumer spending responses prior to the arrival of stimulus payments, either at the passage of the legislation or at the receipt of informational mailings. Rather, the spending response occurs at the time the income is received.

Stimulus Payments after the First Year of the Recession

Some recessions are more severe and prolonged than the typical recession, and in such cases I propose additional rounds of direct payments to individuals after the first year. The goal of these additional payments is further macroeconomic stabilization and reduction of slack resources in the economy as quickly as possible. A cumulative increase of 2 percentage points or more in the unemployment rate in the four quarters *after the initial trigger* would result in a second round of payments. The aggregate stimulus in the second year would be the same as in the initial year (0.7 percent of prerecession GDP) and would follow the same payment structure to individuals. Direct payments would continue each year until the unemployment rate is no more than 2 percentage points above its initial trigger level, though the total amount of the payments scales down after the unemployment rate has peaked. Specifically, if the prerecession, the peak,

and the current unemployment rates were 5, 10, and 9 percent, respectively, the total stimulus would be set at $(9 - 5 - 2) / (10 - 5 - 2) = 2/3$ of the first-year amount (or $2/3$ of 0.7 percent of GDP). When the unemployment rate gap falls to less than 2 percentage points, stimulus is entirely discontinued. Payments after the first year would be triggered in severe recessions: the 1973–75, 1981–82 and 2008–9 recessions are the only three recent examples that would have met this criterion.

In each recession since the mid-1970s, the unemployment rate eventually rose at least 2 percentage points during or immediately following the recession, but with a sufficient delay that it would not have qualified for a second payment round under this proposal. One could argue that a second payment to individuals would have been useful in these other recessions. However, other more-targeted policies such as UI or SNAP payments would better direct resources to those most in need. In addition, discretionary fiscal policy could add further support, specific to the shocks of that particular recession.

Simulation of Proposed Stimulus Payments in the Great Recession

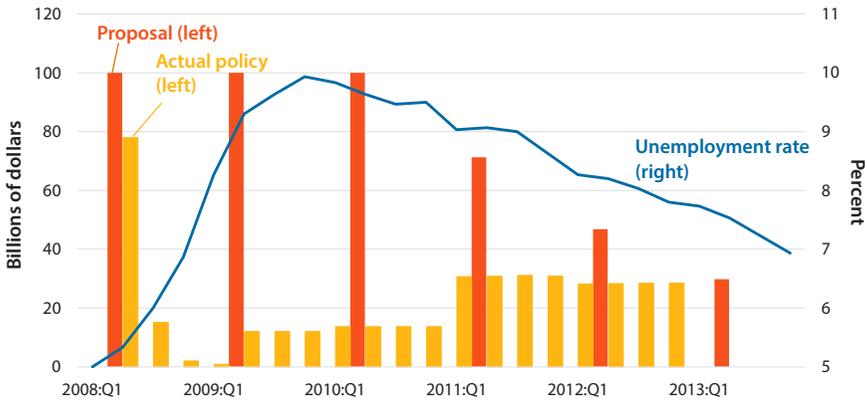
The macroeconomic comparison of automatic stimulus payments to the discretionary policies deployed in the Great Recession (see figure 6) serves two purposes. One is to compare a quantitative example of automatic stimulus payments with discretionary payments that have been used in the past. The second is to be able to compare with other more-targeted automatic stabilizers. Two advantages of automatic stimulus payments are the speed and the scale with which they can deliver stimulus to the economy. Even if this fiscal stabilization policy remains largely discretionary, these exercises will help us understand and critically evaluate the menu of policy options that are available to fight recessions.

In April 2008 the (three-month average) unemployment rate was 5.0 percent, up 0.50 percentage points from its low in April 2007. Under the proposal, this rise would have automatically triggered a direct stimulus payment to individuals. The disbursement of the direct payments would have begun within a few months after the trigger was reached. In this case, the first stimulus payments would have been disbursed in the second quarter of 2008, somewhat sooner than were the tax rebates in 2008. Total stimulus payments of \$100 billion—equivalent to 0.7 percent of GDP in 2006—would have been issued. The automatic payments in 2008 would have been around \$500 for singles or \$1,000 for couples, with higher payments for those with dependent children.

The main difference between the actual stimulus to individuals (from the 2008 tax rebates, Making Work Pay tax credit, and payroll tax reduction)

FIGURE 6.

Automatic Proposal Versus Discretionary Stimulus Income in the Great Recession, 2008–13



Source: BLS 2008–13; BEA 2009; BEA 2015; author's calculations.



and the proposed direct payments would have arisen after the first year. In April 2009, the unemployment rate (on three-month average basis) was 8.5 percent—a 12 month increase of 3.5 percentage points from its level at the time of the first trigger—and was still rising. This rapid, first-year increase (above the 2-percentage-point threshold) in the unemployment rate would signal a severe recession and would have triggered an additional round of direct stimulus payments to individuals. The second round of direct payments to individuals in 2009 would have again been \$100 billion, larger and more quickly distributed than the \$50 billion in additional income from the Making Work Pay tax credit. Subsequent annual payments would continue at that level until the unemployment rate had peaked and was no longer rising relative to its level at the prior year's payment. At that point, the annual payments would scale down as the unemployment rate declines and end when the unemployment rate is within 2 percentage points of its initial trigger. The total amounts of the direct payments in figure 6 are only a rough approximation to show the trajectory and timing, and do not take into account how the direct payments might affect the unemployment rate. The purpose of the larger, more-rapid stimulus payments is to make the recession shallower and the recovery faster. In fact, under the proposal (and the assumptions above about MPCs) the boost to spending in 2008 and 2009 together would have been about one and a half times larger than under actual policy.

Repeated, large direct payments to individuals offers three main benefits relative to the discretionary policy mix of broad-based stimulus to

individuals that was used in the Great Recession. First, the proposed stimulus payments are more concentrated in the initial years of the recession when the unemployment rate and slack in the economy was highest. Second, the proposal commits to maintaining stimulus while the unemployment rate remains elevated. In contrast, during the Great Recession the payroll tax cut expired when the unemployment rate was nearly 8 percent. Third, the relevant research indicates that the proposal's lump-sum annual payments are expected to have an MPC of 0.7 within a quarter or two of receipt, one third higher than the MPC of 0.5 on the smoothed stimulus (distributed via lower withholding) that was used during the Great Recession. Taken together, this proposal for direct payments to individuals is designed to deliver timely, substantial, and ongoing support to the economy in the event of a severe recession.

Ongoing Research Evaluation

To further study the macroeconomic effects of fiscal stimulus, the proposal establishes a process for rigorous evaluation of the effects on spending. Fortunately, administrative constraints on the number of paper checks that the federal government could send out in week led to a natural experiment during the past two recessions. The timing of stimulus payments in 2001 and 2008 were randomized by Social Security numbers. In conjunction with the addition of information to official consumer surveys, this allowed researchers to credibly demonstrate the efficacy of stimulus payments.

With the rise in electronic funds transfers, the constraint on the volume of payments that can be processed at once has been relaxed. Even so, for evaluation purposes it would be beneficial to maintain some randomization in the timing of payments. Social Security numbers remain an option, though this information is not regularly collected in official household surveys, and the data on spending would be available only with a substantial delay. Account level data, such as from financial apps or bank account data sources, might be another option for tracking incoming payments and the spending response, but a nontrivial portion of the population does not have such accounts. Another option for randomization in disbursement would be physical location, such as timing based on the final digit of a zip code. Geographic variation in the stimulus payments would widen the set of evaluation data sources and could be used to explore differences in underlying macroeconomic conditions that affect the spending responses to the stimulus. The main policy goal is to deliver stimulus quickly to households, but given the large commitment of resources some design features should be studied to inform the design of future policies.

Questions and Concerns

1. Are there other macroeconomic indicators that could be used as triggers for the stimulus payments?

The unemployment rate has the benefits of being simple to explain and widely followed. Indicators from the financial market, such as the yield curve or near-term forward spread (Engstrom and Sharpe 2018), are also potential predictors of recessions. However, financial market indicators tend to produce more false positives (in part due to monetary policy responses).

2. How would the Congressional Budget Office score an automatic stimulus payment?

If the proposal was enacted during an expansion, precommitting to stimulus payments in the event of a recession would necessitate the use of probabilistic scoring by the Congressional Budget Office (CBO), according to which the CBO would project the expected value of the payments over a ten-year window. In contrast, a two-stage implementation in which the payments must be authorized by Congress would be scored according to the full cost of the payments, given that the recession would already have started. Consequently, the estimated cost would likely be lower outside a recession, but at the time the pressing need for the outlay would be lower, too.

3. Would the payments have to be annual or could multiple payments occur during the year?

The baseline proposal is for annual payments, but once the infrastructure of distributing payments is in place, it could be used at any time. Accelerating the schedule of payments based on changes in economic conditions via additional legislation would be another way to reintroduce legislative control. For example, the case could have been made for a second stimulus payment at the end of 2008 after the severe disruption in financial markets.

4. Would a smaller, more geographically targeted stimulus be preferable?

One option to limit the overall costs and to still support demand would be to target payments after the first year to parts of the country in which the unemployment rate has risen most. For example, the 2-percentage-point threshold applied nationally in the baseline proposal for a second round could instead be applied at the state level. This would allow the stimulus to take into account both national and local economic conditions. However, this geographic targeting would move away from the principle of broad-based income and consumption support. Other policies, such as federal grants to states and localities, would likely be a more effective way to

geographically target stimulus. The baseline automatic stimulus payments could provide broad national support and then be combined with the other discretionary, geographically targeted policies.

Conclusion

Direct stimulus payments would quickly deliver extra income to millions of households at the start of a recession and maintain income support until the recession has subsided. High-quality research on similar payments in the past shows that this form of stimulus directly boosts spending and helps stabilize demand. Making the payments automatic and tying them to changes in the national unemployment rate would guarantee a timely and transparent source of demand in recessions. The individual payments in the proposal are designed—based on available research—to maximize the spending out of the stimulus and thereby increase the efficacy of the fiscal stimulus. As part of a broad portfolio of automatic stabilization policies, the proposal can help mitigate the worst costs of economic downturns.

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Endnotes

1. These survey responses on stimulus do not map directly to a fraction of the payment spent, but Parker and Souleles (forthcoming) find a strong, positive correlation between spending behavior and self-assessments in the Consumer Expenditure Survey.
2. With another survey, Graziani, van der Klaauw, and Zafar (2016) found that the self-reported fraction spent out of the payroll tax cut rose from 14 percent in early 2011 to 36 percent at the end of 2011. The spending out of this gradual stimulus may slowly rise over time, but the boost is still less immediate than the boost from one-time payments.
3. The evidence (and interpretation) of the role of liquidity in spending responses varies to some extent across empirical studies. For example, Parker (2017) finds that low liquidity in years prior to receiving the tax rebate predicts a spending response nearly as well as low liquidity at the time of receipt. This finding could suggest differences in preferences and relates to earlier work such as the Campbell-Mankiw spender-saver model and research from Carroll et al. (2017) on patience that appeals to individual-specific preferences for spending. In addition, Kueng (2018) finds a large spending response to payments among high-income households with ample liquid assets.
4. Compared to past business cycles and including estimates of discretionary fiscal policy and automatic stabilizers, Cashin et al. (2018) find that the fiscal support during the Great Recession

- was substantial but the support in the recovery was less than in earlier recessions.
5. As one example of the difficulty in communicating the benefits of monetary policy: Savers who hold interest-bearing assets will initially receive less interest income due to expansionary monetary policy; however, these policies to boost aggregate demand and stabilize the economy will lead to higher interest rates in the future. On net, savers benefit from monetary policy, but this is not as transparent as receiving a direct payment.
 6. The unemployment rate consistent with minimal labor market slack—sometimes called the natural rate of unemployment—may change as demographics, labor market frictions, and other variables evolve over time (see, e.g., estimates from the Congressional Budget Office [CBO 2019] that range from a high of 6.2 percent in 1978 in to a low of 4.6 percent in 2019).
 7. Earlier in the postwar period (not shown in figure 2) the only false positive by this rule was in 1959, and it was followed six months later by a recession.
 8. Throughout, I use the data on the unemployment rate available to policymakers at a given moment in time. In general, the real-time data trigger a few months later than would the fully revised data.
 9. Measured growth in GDP (or PCE) reflects the effect of past fiscal and monetary stimulus. The typical shortfall in aggregate demand in a recession—in the absence of stimulus—would be larger. An estimate of that counterfactual time series could be a better way to calibrate the size of the total stimulus. The estimates of fiscal policy effects in Cashin et al. (2018) could be used to calibrate the underlying GDP changes.
 10. As one recent example of the individual effects, Davis and von Wachter (2011) estimate that workers who are laid off when the unemployment rate is above 8 percent lose 2.8 years of potential earnings, twice the loss when the unemployment rate is below 6 percent. For the economy as a whole, Reifschneider, Wascher, and Wilcox (2013) argue that weak demand in severe recessions like the Great Recession can lead to slower growth in the economy's overall productive capacity (or aggregate supply). Large, long-lasting costs from recessions are why it is important to stabilize the economy as quickly as possible.
 11. Other policy goals, such as increasing take-home pay or making taxes more progressive, could favor withholding changes over one-time payments. The argument here for one-time payments is based on trying to bring additional support to the economy during a recession and time of weak aggregate demand. One-time payments could also be combined with broader changes in the tax code.
 12. Other automatic stabilizers such as UI or SNAP are targeted to those who are most severely affected by the recession. This proposal has a broader aim. Moreover, decoupling the stimulus payments from an individual's tax liability simplifies the structure of the payments and allows for anchoring on the overall stimulus level desired.
 13. While retirees are not exposed to the risk of losing their jobs or reduced wage growth, those living on fixed incomes are often affected by the low interest rates in recessions.

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