National Fiscal Policies to Fight Recessions in U.S. States

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States experience recessions that differ in magnitude and timing from national recessions, and those state-level recessions have significant economic and social costs. Yet, countercyclical policy is often viewed through a national lens, where a worsening of national economic conditions leads to policies designed to lower national unemployment or boost national output. Balanced-budget rules prevent states from undertaking effective countercyclical fiscal policies on their own, but the federal government can adopt policies that respond to state-specific needs. For example, cutting federal payroll taxes on a state-by-state basis when unemployment rates rise would substantially reduce the harm of higher unemployment.

We focus on cyclical volatility in states' economies and not on longer-term differences. The crucial policy challenge of persistently weak economic conditions in certain locations is addressed by Austin et al (2018) and others. The issues considered in this paper lie at the intersection of countercyclical national fiscal policies—which address short-term national economic performance—and place-based policies for economic development—which address long-term regional issues. Our focus on policies to address state-level economic downturns is shared by Deep and Lawrence (2008), Peek et al (2018), and Fiedler et al (2019), among others.

I. State Economies are More Cyclically Volatile than the National Economy

State recessions are sometimes much deeper than national recessions; state recessions often occur with somewhat different timing than national recessions; and states occasionally experience recessions when no national recession occurs at all.

Unemployment rates vary widely across states, even excluding the most-extreme 20 percent of observations on a population-weighted basis (see figure 1). During the past three decades, the national unemployment rate has varied between 3.5 percent (in September

2019) and 10.0 percent (in October 2009), while state unemployment rates have ranged from 2.1 percent (in Virginia in October and November 2000 and in Vermont in May through August 2019) to 14.6 percent (in Michigan in June 2009). The differences in unemployment rates across states are larger when the national unemployment rate is high than when it is low.
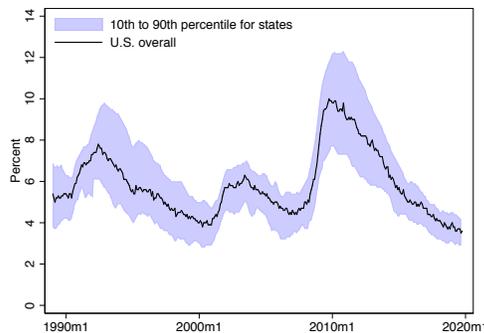

FIGURE 1. VARIATION IN UNEMPLOYMENT RATES ACROSS STATES

Note: Percentiles identified on a population-weighted basis.

State unemployment rates differ because of both short-term and long-term differences in economic performance. Average state unemployment rates for the 1990 to 2018 period varied from 3.2 percent in Nebraska to 7.2 percent in California and Alaska. Understanding and addressing these long-term differences is crucially important. But unemployment rates also varied significantly over time within states. Roughly 15 percent of the time (weighting by states' populations), states' unemployment rates have been 2 percentage points or more higher than those states' long-term averages.

During national recessions, some states experience much larger increases in unemployment than the nation as a whole. In the Great Recession, the national unemployment rate increased roughly 5¼ percentage points relative to its 2005-2007 average, but 6 states experienced increases of more than 6½ percentage points and 4 of those had increases of more than 7½ percentage points (see figure 2). Meanwhile, 11 states had increases of less than 3½ percentage points. Similar divergences occurred in previous recessions as well.
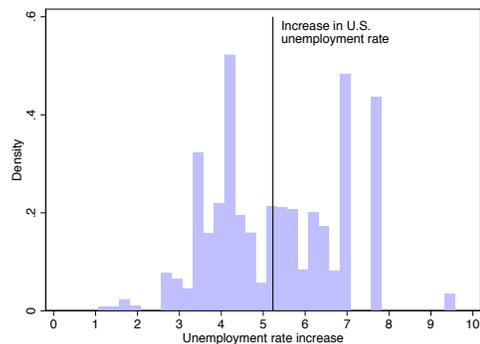

FIGURE 2. DISTRIBUTION OF UNEMPLOYMENT RATE INCREASES IN THE GREAT RECESSION

Note: Population-weighted.

States occasionally experience recessions that are not related to national recessions. Consider a recession to be a period when the unemployment rate rises more than 3/4 percentage point above its average over the preceding year and remains elevated for at least a year—a pattern that has occurred at the

national level only in connection with official recessions as declared by the National Bureau of Economic Research. By this definition, 9 states have experienced recessions in the past three decades that were not part of national recessions—mostly oil-producing states when the price of oil plunged in the mid-1980s (see figure 3). However, the so-called mini-recession of 2016 (Irwin, 2018) left only a small imprint on the unemployment rates of manufacturing and oil-producing states.
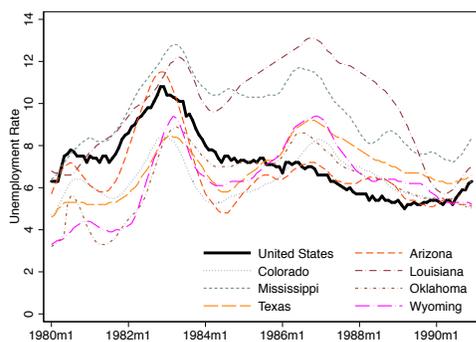

FIGURE 3. MID-1980S RECESSIONS IN OIL-PRODUCING STATES

Movements in unemployment rates do not capture all of the cyclical variation in labor markets, as increases in unemployment often induce declines in the labor force participation rate. In ongoing research, we are examining movements in state-level participation rates and employment-population ratios adjusted for demographic change.

II. Large Increases in Unemployment in States are Costly and Can Be Addressed through Expansionary Fiscal Policy Tailored to States

A large literature has demonstrated the costs of joblessness to individuals and their families: Jobs are important for the income they provide and also for the sense of purpose, identity, and dignity they offer. Moreover, analyses of countercyclical policy often presume that deviations from the natural rate of unemployment are increasingly costly as they get larger—an assumption that can be justified by various considerations, including that larger and longer-lasting increases in unemployment can lead to disproportionately large increases in long-term unemployment, which are especially costly because of the erosion in skills and labor-force attachment. In addition, people do not move readily to find work, and indeed move significantly less than they did a few decades ago.

Increases in unemployment reflect various factors. Expansionary fiscal policy is best suited for reducing unemployment when the principal source of that unemployment is a broad shortfall in demand for goods and services that has reduced the demand for workers and left few open jobs, and poorly suited when the principal source is a structural

economic shift that has left workers without the skills needed for the specific jobs that are open.

Shortfalls in demand are responsible for a significant part of increases in unemployment. For example, Beraja et al (2019) conduct a thorough analysis of national and regional patterns of employment and wages, and conclude: "At least for the Great Recession, most of cross-region variation in economic conditions have been found to be driven by cross-region variation in demand shocks." See also the evidence summarized in Yagan (2019).

State governments cannot undertake adequate countercyclical policies alone, because they face balanced-budget rules of various sorts and because they generally save only limited amounts in their "rainy-day" funds. Uniform federal fiscal policies provide some insurance for states, because uniform federal tax rules lead to smaller revenue collections from states with lower incomes, and uniform federal benefit programs lead to larger benefit payments to states with lower incomes. However, the amount of such insurance is an accident of tax rules and spending programs designed based on other considerations—just as the strength of automatic fiscal stabilizers on a national level is an accident of decisions based on other considerations. Also, Peek et al (2018) note that countercyclical monetary policy has different effects in different

locations depending on those locations' economic and financial structures; however, those differences are not directly under the Federal Reserve's control.

National fiscal policies can be tailored to provide even greater support for states undergoing more significant cyclical weakness. Doing so would not only alleviate some of the higher costs of concentrated increases in unemployment discussed above, but also increase the national effectiveness of countercyclical policy. In places with more workers who have become unemployed, businesses can fill job openings more quickly and at lower wages, and in places with more plant and equipment that has become idle, businesses that hire workers can expand production more quickly and at lower cost. Therefore, a dollar of fiscal stimulus deployed in places with more temporarily unused resources will tend to generate larger increases in output and less upward pressure on prices.

III. Designing National Fiscal Policies to Reduce States' Cyclical Volatility

National fiscal policies targeted at states with more severe recessions would need to satisfy three criteria to make a meaningful difference to those recessions. First, they would need to be feasible at a large scale. Based on the Congressional Budget Office's latest estimates

of potential GDP, actual GDP fell short of potential by more than $500 billion per year for almost 5 years in the latest recession; based instead on CBO's estimates of potential GDP on the eve of the recession, the output gap was much larger for longer (and persists today because of hysteresis). Whatever negative economic forces drive the next recession will probably be less intense than the forces driving the last one, which was the worst downturn since the Great Depression. On the other hand, the low level of interest rates today means that the Federal Reserve will have less room to cut rates than in past downturns, leaving more countercyclical burden to be borne by fiscal policy. On balance, meaningfully reducing the severity of the next recession will require national fiscal policies involving hundreds of billions of dollars.

Second, national fiscal support would need to scale up and down gradually, as states' economies deteriorate and improve. Countercyclical actions should begin quickly when unemployment starts to rise, but should strengthen as (and if) a downturn worsens. Decreases in the unemployment rate are slower than increases—the national unemployment rate has tended to retrace only about half of its recessionary runup in the two years after it peaked—so countercyclical actions should diminish as unemployment falls but should not cease until economies are more fully healed. Generating such gradual adjustments is most straightforward for existing tax provisions or spending programs with sliding scales, such as a tax rate or subsidy rate.

Third, national fiscal support focused on particular states would need to be broadly perceived as fair in order to be politically sustainable. To overcome a natural skepticism about federal activities that treat people with similar individual characteristics differently depending on where they live, it would be important to emphasize the insurance nature of such policies and to link the differences in treatment to relevant, observable conditions. For example, reducing the taxation of work in places where work is more scarce may have an appealing logic.

With these criteria in mind, what policy options are available?

One approach is to strengthen state-based aspects of federal benefit programs. Fiedler et al (2019) propose increasing federal payments for state Medicaid programs in states experiencing cyclical downturns. Because Medicaid involves substantial funding, increasing federal payments could make a noticeable difference in macroeconomic outcomes. And because federal payments for Medicaid already depend on states' per-capita incomes, providing even greater aid for states

with worse economic conditions would be fairly straightforward to implement and would have some political appeal. However, increasing federal spending to relieve pressure on state government budgets might not have the broad political appeal of providing funds to individuals or particularly of cutting individuals' taxes. In addition, given uncertainty about the impact on demand of different forms of fiscal stimulus, policy should generally use more than one form of stimulus.

Strengthening state-based aspects of other benefit programs—for example, the proposal of Chodorow-Reich and Coglianese (2019) to make unemployment insurance more responsive to increases in unemployment— would be important for the recipients of those benefits but would generally not involve enough funding to make a significant difference to macroeconomic outcomes.

To complement existing proposals, we examine next the possibility of varying federal payroll taxes based on the unemployment rate in an employee's state of residence. This approach is feasible at scale, because payroll tax revenue exceeds $1 trillion per year and employers already track employees' residences to comply with state tax laws (although varying payroll taxes by state would certainly introduce additional complexity for employers). In addition, this policy can be scaled up and down

gradually, and it might well be viewed as fair, because it would represent insurance—some states would benefit at some times, and others at other times—and would cut employment taxes more in states with especially high unemployment—which has an appealing logic.

IV. Varying Payroll Taxes Based on State Unemployment Rates

We simulate the following specific proposal, based on the 6-month moving average of each state's unemployment rate to minimize the effects of short-term variation in rates. When that average exceeds its sixth lag by 1 percentage point, a recession is deemed to have begun in that state, and that sixth lag of the moving average is identified as the "baseline rate" for that downturn in that state. For each percentage point by which that average rises above the baseline rate, the employee share of the payroll tax (including the tax paid by self-employed workers) is reduced by one percentage point. As a state's unemployment rate later declines, the process reverses, and the tax rate reverts gradually to its regular level. The tax changes occur with a two-month lag relative to changes in unemployment because the unemployment rate for a month is not known until the following month, and policy changes cannot be made until the month after that.

Because payroll tax revenues are deposited in the Social Security trust funds, and because Social Security payments depend under law on the balances in those funds, we assume that an amount equal to the lost revenues would be transferred to the trust funds from the federal government's general fund, thereby leaving the trust funds unaffected by this policy. This approach was followed during the Great Recession, although not without concerns being expressed about the impact of the policy on Social Security.

We estimate the macroeconomic effects of this proposal as follows. Payroll tax rates were reduced by two percentage points during 2011 and early 2012, and the staff of the Joint Committee on Taxation estimated that the resulting revenue loss would be $112 billion on an annual basis (see Congressional Budget Office (CBO), 2010). We assume that a $1 tax cut increases household spending by 50 cents, and that the multiplier for this spending impulse in a period when monetary policy will be constrained by the effective lower bound will be 1.5, which is consistent with literature reviews by CBO (2014), Chodorow-Reich (2019), and Ramey (2019). We do not adjust the multiplier upward to allow for the fact that the fiscal stimulus under this proposal would occur disproportionately in places with more unused resources.

Under these assumptions, the two-percentage-point payroll tax cut in 2011 would be estimated to raise GDP by $84 billion or 0.54 percent (over time, in line with CBO, 2012). Based on the traditional Okun's law relationship in which 1 percent higher GDP leads to a ½ percentage point lower unemployment rate, that cut in the payroll tax rate would reduce the unemployment rate by 0.27 percentage points (again, over time, as in Ball et al, 2017). Thus, a 1 percentage point cut in the payroll tax rate paid by employees would lower the unemployment rate by roughly 0.13 percentage points.

We examine what the impact of this proposal would have been during the Great Recession. Had the formula been applied to the country as a whole, the payroll tax rate paid by employees and self-employed workers would have been reduced by one percentage point in January 2009 and again by one percentage point in April, July, and October of 2009 (see figure 4). By the end, the employee payroll tax rate would have been 2.2 percent (compared with the actual 6.2 percent). Then the payroll tax rate would have been increased in August 2011, December 2012, March 2014, and December 2014, returning it to 6.2 percent. All told, the employee payroll tax rate would have been below the standard 6.2 percent by 16 point-years, nearly seven times the actual reduction

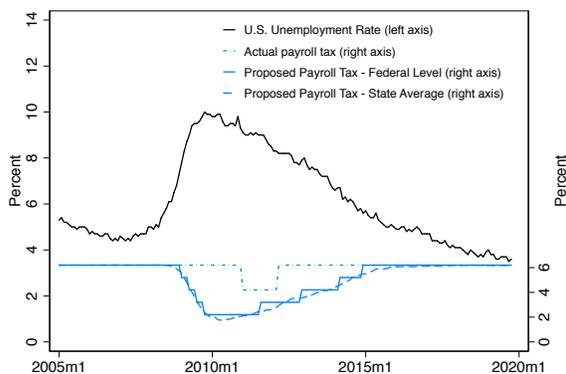of just over 2 point-years. The reduction in tax revenue would have been roughly $800 billion.

FIGURE 4. U.S. UNEMPLOYMENT RATE AND PAYROLL TAX CUTS

Note: State-average is population-weighted.

If instead the formula had been applied on a state-by-state basis, states would have experienced very different changes in payroll taxes. The first reduction in the payroll tax rate would have occurred in Rhode Island in June 2008, and the standard payroll tax rate was fully restored in all states in July 2019, when the unemployment rate in Arizona returned to its pre-recession level.

If the formula had been applied on either a national or state-by-state basis, the unemployment rate would have been lower than it actually was (see figure 5). Given our estimating assumptions, the state-by-state approach would not have resulted in a lower national unemployment rate on average, but it would have reduced unemployment more significantly in states that experienced

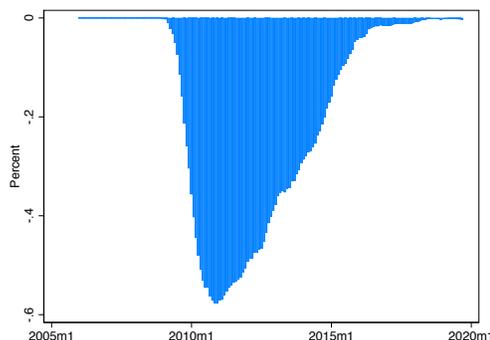especially high unemployment and thus where the cost of the recession was especially high.

FIGURE 5. U.S. UNEMPLOYMENT RATE: COUNTERFACTUAL UNDER PROPOSED POLICY MINUS ACTUAL

V. Conclusion

U.S. states experience significantly different cyclical patterns of joblessness, and those differences warrant a national fiscal policy response. Enacting countercyclical fiscal policy calibrated to state unemployment rates would reduce the cost of recessions.

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