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POLICY BRIEF

20-9 When More Delivers Less: Comparing the US and French COVID-19 Crisis Responses

Jérémie Cohen-Setton and Jean Pisani-Ferry

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EXECUTIVE SUMMARY

The novel coronavirus (COVID-19) pandemic and resulting economic shocks have produced aggressive responses in countries around the world. But the responses have varied widely, yielding distinct economic impacts. The different responses in Europe and the United States are a case in point: initially, unemployment surged only on the American side of the Atlantic, while in France, as elsewhere in Europe, temporary job retention schemes absorbed most of the (more severe) shock to employment.

To shed light on this difference, this Policy Brief compares household support packages in the United States and France.[1]

The US approach, in propping up family support and unemployment benefits, has taken for granted that workers made idle would be laid off by their employers (and possibly rehired later on). It has not put emphasis on maintaining the employment relationship. Accordingly, payments went largely to workers individually rather than through their employers. True, the US Paycheck Protection Program (PPP) was meant to help employers retain their workers. But by disseminating aid to firms that did not need it, while not getting aid to others in desperate need, the program has not substituted for unemployment. At a high cost, it may end up as the job retention scheme with the least bang for the buck.

By contrast, in France as in many other European countries, government assistance has kept workers attached to their employers even when they were closed for business. By making its job retention scheme open to all companies

Jérémie Cohen-Setton is research fellow at the Peterson Institute for International Economics. **Jean Pisani-Ferry** is nonresident senior fellow at the Peterson Institute for International Economics. He holds the Tommaso Padoa-Schioppa chair of the European University Institute in Florence and is a senior fellow at Bruegel.

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1 Response packages put in place in Europe have much in common, especially in regard to labor markets and support to businesses. So, while the French support plan has unique features, it is representative of what other European countries have done. See Blanchard, Philippon, and Pisani-Ferry (2020).

suffering a temporary drop in business, this approach has managed to greatly limit the increase in unemployment and maintain employment relationships. According to our calculation, this has been done at a cost barely above that of regular unemployment compensation.

The US package is also more costly because sheltering US household income from the fallout of the biggest economic shock since World War II required enacting new programs to keep families whole. In France, because the safety net is more extensive and also because a larger portion of French disposable income is unaffected by ups and downs in economic cycles, sending direct checks or making unemployment benefits more generous was for the most part unnecessary.

Time will tell if the incentives to rehire built into the PPP prove effective—and if the relative generosity of the French government-funded furlough scheme ends up slowing down the job recovery. But as an immediate crisis response, the French (and European) approach undoubtedly offered a bigger bang for the buck.

THE UNITED STATES AND FRANCE: BEYOND THE HEADLINE FIGURES

In March and April 2020, the United States enacted several measures adding up to $2.7 trillion (about 13 percent of GDP) to provide economic relief to individuals, firms, and states—the largest economic stimulus effort in US history. Half the funding was devoted to direct and indirect household income maintenance.

The package of measures calls for the federal government to send checks to low- and middle-income taxpayers, provide federal emergency paid leave benefits, increase the coverage and duration of unemployment insurance, pay an additional $600 per week to unemployed workers,[2] and offer loans to small firms that can be forgiven if the money is used to retain workers.

It is actually a very European package in the sense that it provides an ad hoc, temporary, and patchy version of European social insurance mechanisms. Judging from headline numbers, it is also a package several times bigger than the fiscal relief measures implemented in Europe. In France, the headline figure is, for example, only €49 billion (about 2 percent of GDP).

These headline figures, however, span different time periods and account for costs in different ways, with different assumptions of the magnitude of the shock.

In the United States, the headline figure corresponds to budget appropriations and the expected costs of the programs over the next ten years. For the Coronavirus Aid, Relief, and Economic Security (CARES) Act[3] and the Paycheck Protection Program and Health Care Enhancement (PPPHCE) Act,[4] about 90 percent of relief is concentrated in FY2020, creating little difference

2 The scale of this measure is unprecedented. For comparison, the 2009 American Recovery and Reinvestment Act increased unemployment benefits by $25 per week (Shelton, Romig, and Whittaker 2009).

3 See www.cbo.gov/publication/56334.

4 See www.cbo.gov/system/files/2020-04/hr266.pdf.

between appropriated amounts and actual spending. But for the Families First Coronavirus Response Act (FFCRA)[5] and the Coronavirus Preparedness and Response Supplemental Appropriations Act,[6] estimated outlays for the current fiscal year represent 70 and about 15 percent, respectively, of the total headline figure of the two programs. Delays in disbursements also reduce the actual amount of relief that has been spent.

In France, the headline figure of €49 billion (about 2 percent of GDP) corresponds to the expected cost of programs for the current fiscal year. But because most of the French measures are open-ended, the size of the French program is evolving over time. The cost budgeted for *chômage partiel*—the mechanism that temporarily transfers to the government the largest part of the wage bill of companies forced to cut production—was, for example, increased from an initial estimate of €8.5 billion (0.35 percent of GDP) in mid-March to a new estimate of €24 billion (1 percent of GDP) in mid-April.

This Policy Brief provides a coherent quantification of the immediate direct and indirect government support provided to households in March–May 2020 in both countries, which relies on explicit assumptions about automatic stabilizers (i.e., spending that rises automatically in downturns), the speed of disbursements for discretionary measures, and the estimated extent to which open-ended schemes like *chômage partiel* were used during that period.[7] Altogether, the US package is found to be twice as large in proportion of GDP as the French one. The gap is thus significantly smaller when properly assessed on the basis of expected transfers rather than headline figures, but it remains large.

Unlike most comparisons in other analyses, the comparison in this Policy Brief is not limited to discretionary measures. The method here also estimates the size of automatic spending and revenue stabilizers. This is important because standard comparisons across countries are often biased on the fact that discretionary measures may make up for the weakness of automatic income stabilization mechanisms. Compare, for example, a country equipped with a comprehensive unemployment insurance system and another where unemployment insurance is weaker; the latter may introduce discretionary measures that simply replicate what is being provided automatically in the former.[8]

A second reason why automatic stabilizers must be factored in is that discretionary measures may in fact replace existing automatic mechanisms. This is the case with *chômage partiel*, which replaces standard unemployment. The measure's actual impact on household income is net of what standard unemployment insurance would have provided.

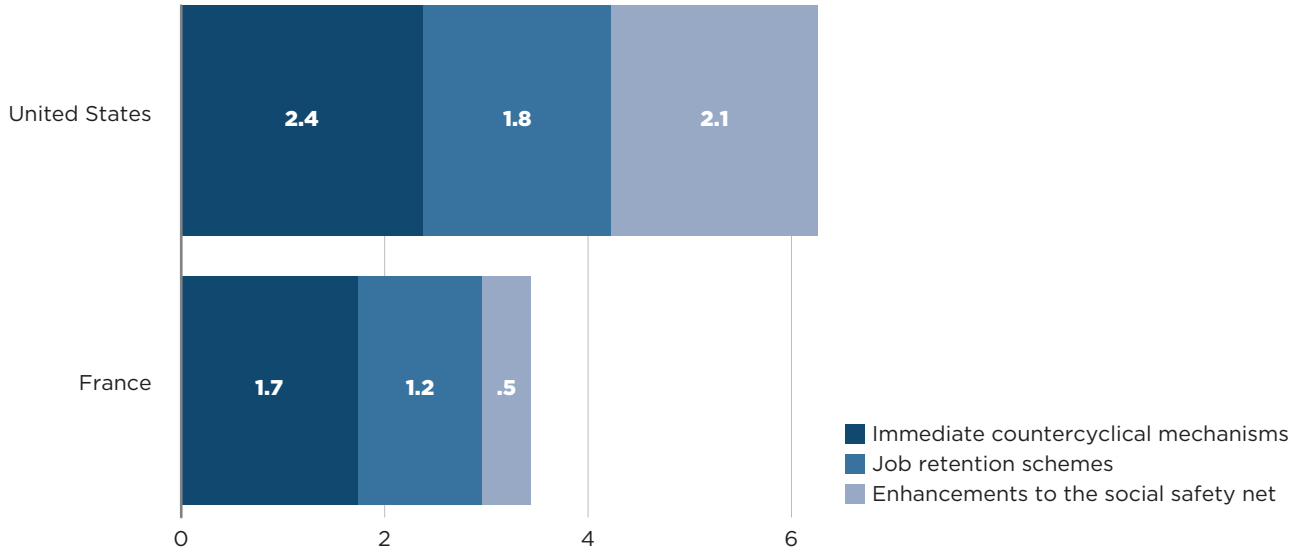
5 See www.cbo.gov/system/files/2020-04/HR6201.pdf.

6 See www.cbo.gov/publication/56227.

7 Although the special income replacement schemes intended to discharge companies of the wage cost of idle or furloughed workers could admittedly be categorized as support to businesses, the end-beneficiaries are households, for which they serve as a substitute for unemployment benefits.

8 The analysis requires an initial assumption about the average decline in output over the period. Using the high frequency data-based estimate of the magnitude of the slump released by INSEE (2020), a symmetric decline of one-third in output is assumed for both countries. Using conventional Okun's law estimates of the relationship between unemployment and lost output, this implies a counterfactual increase in the unemployment rate of 15 percentage points in the United States and 12 percentage points in France (Ball, Leigh, and Loungani 2017). An alternative scenario with a 25 percent output loss in the United States and a 33 percent output loss in France does not fundamentally change our results.

Figure 1
Fiscal support to US and French households, March–May 2020
(percent of 2019 GDP)



Note: The total values for the United States and France are, respectively, $1,341 billion (6.3 percent of 2019 GDP) and €83 billion (3.4 percent of 2019 GDP).

Sources: Tables 1–5 and appendix A; authors' calculations.

DIFFERENT CHANNELS TO MAINTAIN INCOME

Figure 1 shows the results of our calculations. Taking endogenous and exogenous policy responses together, fiscal support to US households amounts to 6.3 percent of 2019 GDP, against 3.4 percent for France. Four conclusions can be drawn:

- The US package is almost twice as large in proportion of GDP as the French one. The gap (6.3 versus 3.4 percent of GDP) is significantly smaller when properly assessed on the basis of expected transfers rather than headline figures, but it remains large.
- The US extraordinary job retention schemes are 50 percent more expensive than the French *chômage partiel*. As developed below, however, this difference is explained by differences in the efficiency of the schemes rather than by discrepancies in the actual magnitude of relief provided.
- The other big difference comes from discretionary enhancements and complements to the social safety net, which amount to 2.1 percent of GDP in the United States compared with 0.5 percent in France.
- With *chômage partiel* replacing the largest part of standard unemployment benefits in France, traditional built-in countercyclical government receipts and expenditures provide slightly more income support in the United States than in France, but the difference is small.

Box 1
Employment income protection schemes in France and the United States

The French *chômage partiel* scheme existed before the coronavirus crisis (Cahuc, Kramarz, and Nevoux 2018). But new rules made it significantly more generous to employees, who now receive 84 percent of their net salary (100 percent for those on minimum wage) for up to 4.5 times the minimum wage. Allowances are paid by the employer but refunded by the government. Eligibility has also been broadened to include domestic workers, day workers, childcare assistants, and sales representatives.

Importantly, access for employers has been simplified. Companies must apply to the ministry of labor, declaring the cause of their application, the number of employees and hours expected to be covered, and the intended time period. Approval is subject to screening, but the government has declared that it intends the scheme to provide wholesale coverage of businesses and employees affected by the lockdown and the economic fallout of the health crisis. Authorization is automatically granted unless government services object within two days. Employers have 30 days to notify their intention to apply, and benefits can be applied retroactively.

More than half of all French companies have applied, covering more than 12 million workers (about half of business employment). Appendix A provides details underlying the cost estimate of €30 billion or 1.2 percent of GDP reported in table 1.

In the United States, three different programs were introduced in the CARES Act to protect employment and income: the Paycheck Protection Program (PPP) for small and medium-sized enterprises, the Payroll Support Program for air carriers and contractors, and the Employee Retention Tax Credit. Funding for Emergency Economic Injury Disaster Loan program grants was also provided.

The PPP offers loans with a maturity of two years that can be forgiven if the money is used to retain workers or rehire for positions cut because of the pandemic. The Small Business Administration (SBA) backs the loans, but companies need to apply for them through banks. The program gives banks a 5 percent fee for originating the loans.

The PPP opened for applications on April 3 and was oversubscribed by April 16. The SBA started approving loans again on April 27 after the fund was replenished with another $321 billion.

THE UNEQUAL PERFORMANCE OF JOB RETENTION SCHEMES

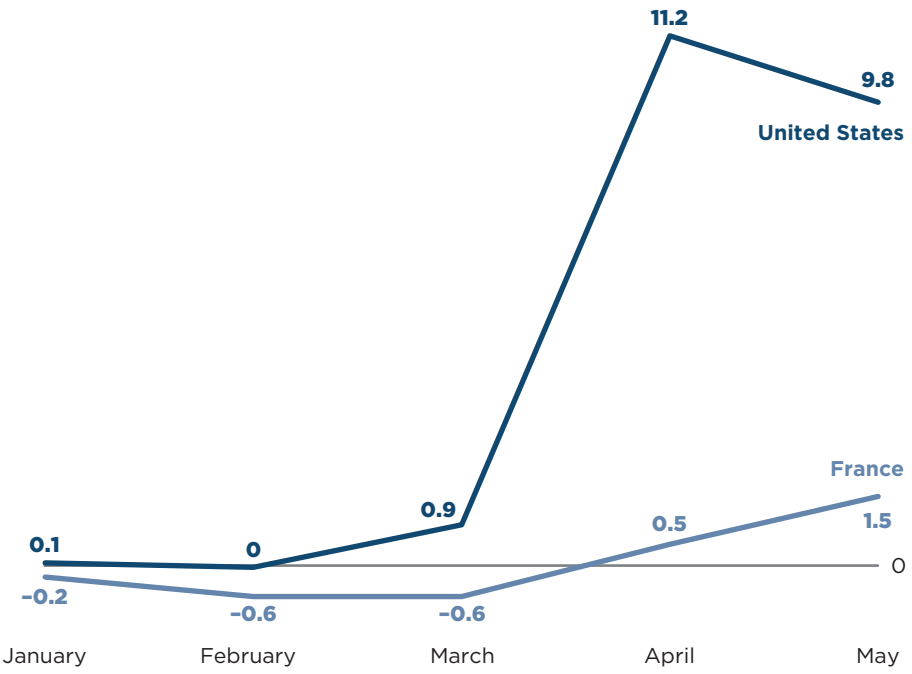
The first channel of household income support assessed is job retention schemes, described in box 1.

The French *chômage partiel* is intended to help companies suffering a temporary drop in business to retain their employees and keep paying them a compensation close to their previous wage. To benefit from this scheme, companies apply to the ministry of labor. If approved, they can then draw monthly on the scheme, up to the number of hours requested by the firms.[9] Salaries are paid by employers, who get refunded by the government.[10]

9 Quantifying the cost of the scheme thus requires assuming a rate of consumption of the hours requested under the scheme. See appendix A for details.

10 As of June 1, the government refunds only 85 percent of the allowance.

Figure 2
Cumulative change in US and French unemployment rates, 2020
(change in percentage points)



Note: The values shown correspond to mid-month changes as unemployment surveys are completed by the middle of the month. For France, OFCE (2020) estimates that two months of lockdown will generate a total increase in the French unemployment rate of 2.1 percentage points. According to the OECD, the unemployment rate already increased by 1.1 percentage points in April. The increase in the unemployment rate in May is thus obtained by subtracting the OECD estimate from the OFCE (2020) estimate.

Sources: Organization for Economic Cooperation and Development (OECD); US Bureau of Labor Statistics; OFCE (2020).

The US Paycheck Protection Program (PPP) began on April 3 as part of the CARES Act. The program is generally targeted toward small businesses and provides loans of up to 2.5 times the average monthly payroll costs. The loans can be forgiven if at least 75 percent of the proceeds are used to cover payroll costs and most employees are retained.

What stands out is that the impact of these programs on labor markets has been uneven. The substantial difference in labor market adjustment is evident when comparing the evolution of unemployment rates (figure 2). In the United States, nonfarm payroll employment fell by 21.4 million between February and April, bringing the unemployment rate up to 14.7 percent in April before slightly declining to 13.3 percent in May.[11] In contrast, in France the increase in the unemployment rate is much more limited, at around 2 percentage points—five times less than the increase observed in the United States.

11 Even this very large increase in the official unemployment rate understates the increase in the unemployment rate because of misclassification issues. For a discussion, see Furman and Powell (2020).

Why such a stark difference? After all, both countries have experienced a macroeconomic shock of comparable magnitude.[12] And both have job retention schemes that are similar in spirit. Yet only *chômage partiel* appears to have substituted for regular unemployment, as more than half of French companies resorted to the scheme during the lockdown and half of total private sector employees were enrolled in it at some point (DARES 2020).

One explanation could be that the overall scale of fiscal spending for job retention schemes is smaller in the United States than in France. But the opposite seems to be the case. The funding made available through PPP is estimated to be enough to cover almost all payroll, rent, mortgage interest, and utilities expenditures of eligible firms for 8 weeks (Taylor 2020). Adding up the two rounds of PPP funding, payroll support to the airline industry, and other Small Business Administration (SBA) grants and tax credits to maintain employment, the total cost of US job retention schemes is estimated at around 1.8 percent of GDP. This is 50 percent higher than the cost of the French job retention scheme, which is estimated at 1.2 percent of GDP (table 1).[13]

Another more likely explanation is simply that PPP was poorly targeted, with more robust firms managing to get to the front of the bailout queue.

The eligibility requirements in the CARES Act require only a good faith certification by the borrower that "the uncertainty of current economic conditions makes necessary the loan request to support ongoing operations." Given the abrupt nature of the economic effects of the pandemic, it was certainly necessary to make the program easy to access. But when combined with the other features of the program—a subsidy, a funding cap, and an exemption on the size limit for some sectors—this lack of conditionality made the US job retention scheme particularly prone to free riding.

Consider first the effect of the program's subsidy for nonpayroll expenditures. Note that it is big: For every $1 spent on payroll, the firm can spend 33 cents on nonpayroll expenses. This is because the PPP allows firms to spend up to 25 percent of the loan proceeds on rent, mortgage interest, and utility costs, and the entire loan will still be forgiven if the firm maintains employment.[14] The government, therefore, does not just (indirectly) pay wages to workers, it also provides a subsidy for nonpayroll expenses to firms. Such an incentive structure makes the program particularly attractive to firms that are not likely to lay off workers in the first place.

12 If anything, the magnitude of the shock appears to be larger in France than in the United States. The French statistical agency estimates an output loss of 35 percent since the beginning of confinement (INSEE 2020). Comparable official estimates are not available for the United States, but with less uniform and less stringent "stay-at-home" orders, the drop is likely smaller.

13 In addition to the creation of the PPP, the CARES Act appropriated up to $32 billion in payroll support to the airline industry, $10 billion to make grants through the SBA's Economic Injury Disaster Loans, and up to $58 billion for a broad-based refundable tax credit designed to encourage employers to keep employees on their payroll. To obtain amounts of actual expenditures rather than budget appropriations, additional assumptions about disbursements and use of funds are necessary. See appendix A for more details.

14 The requirement that 75 percent of the loan forgiveness amount be spent on payroll costs was reduced to 60 percent following the enactment of the Paycheck Protection Program Flexibility Act on June 5, 2020. See https://home.treasury.gov/news/press-releases/sm1026.

Table 1
US and French job retention schemes, disbursed amounts, March–May 2020

		United States		France	
Date	**Schemes**	*Billions of US dollars*	*Percent of 2019 GDP*	*Billions of euros*	*Percent of 2019 GDP*
Total		384	1.79	30	1.24
March 12	*Chômage partiel* (partial unemployment scheme)			30	1.24
March 27	Coronavirus Aid, Relief, and Economic Security (CARES) Act				
	Paycheck Protection Program (PPP)	219	1.02		
	Emergency EIDL grants	8	0.04		
	Employee Retention Tax Credit	14	0.06		
	Payroll Support Program for Aviation Workers	18	0.10		
April 24	PPP and Health Care Enhancement (PPPHCE) Act				
	Additional funds for Paycheck Protection Program	117	0.55		
	Additional funds for EIDL grants	8	0.04		

EIDL = Economic Injury Disaster Loan program
Source: Authors' calculations. See appendix A.

Consider next the effect of the funding cap. With few eligibility requirements, funds were necessarily disbursed on a first-come, first-served basis.[15] Understandably, firms rushed to submit their application for fear of being left out, creating operational difficulties and accentuating the advantage of more robust firms with back-office infrastructures and privileged bank relationships. Consistent with this view, Haoyang Liu and Desi Volker (2020) find that variation in the share of small businesses with existing bank financing explains the variation in PPP loans approved across states.

Though the PPP was meant to help smaller businesses without easy access to credit, a size exemption for accommodation services made large businesses such as restaurant and hotel chains eligible for PPP funds. Data on the first round of the PPP reveal the extent of the problem as 5 percent of participating firms received almost half the funds budgeted in the CARES Act (SBA 2020).[16]

These features combined to prevent PPP funds from going where they were most needed. According to João Granja and colleagues (2020), PPP loans were in fact disproportionately allocated to areas least affected by the crisis. In regions least affected by declines in hours worked and business shutdowns, 30 percent of all eligible establishments received PPP funding. In the most affected regions, only 15 percent of eligible establishments received PPP funding.

15 Open-ended funding helped other countries avoid such problems with their job retention and furlough schemes.

16 The number of PPP loans translates one-to-one to the number of small businesses receiving loans, since PPP loans are capped at one per business.

SIMILAR SUPPORT PROVIDED BY AUTOMATIC INCOME STABILIZATION MECHANISMS

The spontaneous change in government transfers and tax liabilities automatically mitigates household income fluctuations. They include endogenous increases in regular unemployment allowances, increases in the volume of means-tested social benefits, and automatic declines in personal income tax liabilities.

We assess separately the stabilization provided by these three channels. Our approach is slightly different from the standard one, which defines automatic stabilization on the basis of the compared variability of household primary income and household disposable income. We consider only mechanisms that offset the impact of variations in market income. The other source of stabilization is the composition of household disposable income: The larger the share of output-insensitive components, the more stable it is. We take up this aspect in the next section.[17]

Consider first the support provided by regular unemployment insurance. This calculation is straightforward: We multiply the counterfactual increase in recipients by an estimate of the average benefit amounts received in the initial phase of unemployment.

Table 2 shows the steps of the calculation for both countries. The counterfactual increase in unemployment is obtained by applying a standard Okun's law estimate to the one-third loss in production (Ball, Leigh, and Loungani 2017), which translates into increases of 15 and 12 percentage points, respectively, in the US and French unemployment rates.[18] An estimate of the average unemployment benefit received is obtained by multiplying the average gross wage with an estimate of the average replacement rate.

Under this scenario, the income support provided by regular unemployment benefits is similar in both countries, at around 0.8 percent of GDP.[19] Because employees benefiting from job retention schemes indirectly receive income from the government but do not claim unemployment benefits, the increase in income support from regular unemployment benefits needs to be adjusted accordingly.

Based on the considerable difference in labor market performance over the past two months (figure 2), *chômage partiel* is assumed to substitute for 80 percent of the counterfactual increase in unemployment. In contrast, the US PPP and other job retention schemes are assumed to absorb only 20 percent of

17 Formally, $H = R - T + B + Z$, where H is household disposable income, R primary income, T personal taxes, B countercyclical benefits such as unemployment and welfare allowances, and Z output-insensitive components of income (pensions, civil servant wages, etc.). The standard definition of income stabilization is $(1 - \theta)$, where θ is the elasticity of disposable income to GDP. So

$$\theta = \left(\frac{dH}{H}\right)/\left(\frac{dY}{Y}\right) = \left[\frac{R}{H}\sigma_R - \frac{T}{H}\sigma_T + \frac{B}{H}\sigma_B\right],$$

where Y is GDP, and σ_R, σ_T, and σ_B are the respective elasticities of primary income, taxes, and countercyclical benefits to GDP. Hence, $(1 - \theta)$ implicitly depends on Z/H, the share of output-insensitive components in disposable income. Here we compute $dH = dR - dT + dB$ and take up the composition of income in the next section.

18 According to estimates by Ball, Leigh, and Loungani (2017), a 1 percent decline in GDP is associated with an increase in the unemployment rate of 0.44 percentage point in the United States and 0.37 percentage point in France.

19 The replacement rate of unemployment benefits is higher in France than in the United States. But this is compensated by a relatively higher counterfactual increase in unemployment and higher average gross wages in the United States.

Table 2
Increase in regular US and French unemployment benefits, March–May 2020

Component	Steps in calculation	United States	France
Average gross wage, thousands	[A]	$57	€37
Average gross replacement rate	[B]	0.50	0.57
Average benefit, thousands	[C = A x B]	$28.5	€21.0
Counterfactual increase in unemployment rate	[D]	15	12
Labor force 2019, millions	[E]	164	29
Counterfactual increase in unemployment, millions	[F = D/100 x E]	24	3.6
Counterfactual cyclical response in quarter, billions	[G = C/4 x F]	$169	€19
Counterfactual cyclical response in quarter, percent of 2019 GDP	[H = G/GDP x 100]	0.79	0.77
Share of unemployment avoided with job retention schemes	[I]	0.20	0.80
Increase in unemployment, millions	[J = (1–I) x F]	19.0	0.7
Total (in billions)	[K = J x C/4]	$135.5	€3.7
Total (percent of 2019 GDP)	[L = K/GDP x 100]	0.63	0.15

Sources: Ball, Leigh, and Loungani (2017); Van Vliet and Caminada (2012); OECD (2020); authors' calculations.

that increase.[20] Applying these adjustments reduces the instantaneous support provided by unemployment benefits to 0.6 percent of US GDP and 0.2 percent of GDP in France.[21]

A similar bottom-up approach is not possible to calculate the support provided by means-tested social benefits as they encompass many different programs for which eligibility is based on income. In the United States, these programs include food stamps, which individuals with a maximum gross monthly income of $1,354 can use to purchase food,[22] and Medicaid, which provides health insurance to families with income below 133 percent of the federal poverty level.[23] In France, means-tested benefits include the Revenu de Solidarité Active, which provides a monthly minimum income guarantee of €550.93 for a single person with no income from work. About 30 percent of French cash family benefits are also means-tested.[24]

20 Given the rapid increase in actual US unemployment, this effect is likely backloaded with the majority of PPP loan recipients first laying off staff and then using PPP funds to rehire them.

21 These calculations imply that the actual April increase in the US unemployment rate of 10 percentage points should be accompanied by an endogenous increase in regular unemployment benefits of about $40 billion or 0.2 percent of GDP. Yet CBO (2020) reports that outlays for regular unemployment compensation were at most $22 billion in April ($49 billion minus $27 billion, accounting for the $600 weekly increase in unemployment benefits provided by the CARES Act). This gap is most likely due to processing delays.

22 See www.dhs.pa.gov/Services/Assistance/Pages/SNAP-Income-Limits.aspx.

23 See www.medicaid.gov/medicaid/eligibility/index.html.

24 See www.oecd.org/social/soc/OECD2019-Social-Expenditure-Figures-Data.xlsx.

Table 3
Increase in US and French means-tested benefits, March–May 2020

Component	Steps in calculation	United States	France
Size of means-tested benefits (percent of GDP)	[A]	1.60	4.14
Output gap elasticity of means-tested benefits	[B]	1.47	0.75
Percentage response of means-tested benefits (percent of GDP per 1 percent decline in output)	[C = A x B]	0.023	0.031
Percentage response within quarter with 33 percent output decline (percent of GDP)	[D = 1/4 x C x 33]	0.194	0.256
Total (in billions)	[E = D/100 x GDP]	$41.5	€6.2
Total (percent of 2019 GDP)	[F = E/GDP x 100]	0.19	0.26

Sources: Price, Dang, and Botev (2015); authors' calculations.

Table 4
Reduction in US and French personal income tax liabilities, March–May 2020

Component	Steps in calculation	United States	France
Size of personal income tax revenues (percent of GDP)	[A]	9.06	8.68
Output gap elasticity of personal income tax	[B]	2.08	1.85
Percentage response of personal income tax (percent of GDP per 1 percent decline in output)	[C = A x B]	0.188	0.161
Percentage response within quarter with 33 percent output decline (percent of GDP)	[D = 1/4 x C x 33]	1.555	1.324
Total (in billions)	[E = D/100 x GDP]	$333.3	€32.1
Total (percent of 2019 GDP)	[F = E/GDP x 100]	1.56	1.32

Sources: Price, Dang, and Botev (2015); authors' calculations.

To estimate the support provided through an endogenous increase in means-tested social benefits, the size of such benefits is combined with estimates of their responsiveness to output changes (table 3). According to Organization for Economic Cooperation and Development (OECD) estimates (Price, Dang, and Botev 2015), a 1 percent decrease in the output gap translates to an increase in means-tested benefits of 0.023 percent of GDP in the United States and 0.031 percent of GDP in France.[25] The similarity in the stabilizing effect of the two countries' means-tested benefits results from relatively bigger but less elastic means-tested benefits in France.

A similar exercise can be done to calculate the automatic change in personal income tax liabilities (table 4). One could have expected a larger responsiveness of personal income tax liability in France given its relatively more progressive tax

25 This is in line with the estimates of a 0.009 and 0.003 percentage point increase in US food stamps and Medicaid federal expenditures, respectively, obtained by Cashin et al. (2018) and the 0.014–0.043 percentage point range obtained by Boone and Gilles (2006) for France.

schedule. But personal income tax is levied on a narrower base in France than in the United States (Dolls, Fuest, and Peichl 2012), so the decline in personal income tax liabilities is of the same order of magnitude in both countries.[26]

DIFFERENCES IN DISCRETIONARY ENHANCEMENTS TO THE SOCIAL SAFETY NET

Turning finally to enhancements to the social safety net, the contrast is evident (table 5). In the United States, the emergency legislation includes a host of measures that plug holes in the existing social insurance system. In France, as in most other European countries, ad hoc additions to the social protection system have been limited.

The French measures include extra relief for the self-employed, microentrepreneurs, and students (who are not covered by the French income safety net in normal times).[27] A closely related program in the United States is Pandemic Unemployment Assistance for a broad swath of workers who would otherwise be ineligible for unemployment insurance benefits under traditional state criteria. The magnitude of both measures is also similar at less than 0.2 percent of GDP.

Where the two countries differ is in the size of their direct cash transfers and in the increase in unemployment compensation. The French relief package includes direct cash transfers of €150 per adult and €100 per child to about 4 million households on welfare benefits. It also provides bonus payments of up to €1,000 for healthcare and government employees who have been "particularly mobilized" in responding to the pandemic.

These are significantly smaller compared with the US Economic Impact Payments, which provide individuals with gross income below $75,000 a direct payment of up to $1,200, and an additional $500 for each child. Taken together the French direct cash transfers and bonus payments amount to less than 0.2 percent of GDP. The US cash transfer program is more than six times larger at 1.25 percent of GDP. The CARES Act also gives individuals who are eligible for unemployment benefits an extra $600 weekly benefit from the date of eligibility until July 31, 2020. This corresponds to an additional 0.4 percent of GDP in income support.

26 The estimates presented in table 4 should be viewed as upper bounds given the higher-than-usual replacement rates provided by *chômage partiel* in France and, in the United States, the extra $600 in weekly unemployment benefits and direct check payments introduced by the CARES Act.

27 Further ad hoc additions include eligibility extensions for regular unemployment benefits during the "stay at home" order, the suppression of the usual 3-day waiting period for sick leave benefits, and a special direct payment to households on welfare benefits.

Table 5
US and French enhancements to the social safety net, disbursed amounts, March–May 2020

		United States		France	
Date	**Measures**	*Billions of US dollars*	*Percent of 2019 GDP*	*Billions of euros*	*Percent of 2019 GDP*
Total		447	2.08	11.2	0.46
March 17	First amended budget bill				
	Solidarity fund for self-employed and microentrepreneurs			1.0	0.04
	Daily allowance for quarantined individuals and parents unable to work because of childcare			2.0	0.08
April 15	Second amended budget bill				
	Solidarity fund for self-employed and microentrepreneurs			3.4	0.14
	Bonus payments for healthcare and government employees			1.8	0.07
	Direct cash transfers to poor households			0.9	0.04
	Other emergency spending (e.g., aid to students)			1.6	0.07
	Extension of benefits for unemployed no longer eligible			0.5	0.02
March 18	Families First Coronavirus Response Act (FFCRA)				
	Supplemental Nutrition Assistance Program and other nutrition programs	3	0.01		
	Fund to extend unemployment benefits past 26 weeks	1	0.00		
	Increase Medicaid matching funds	17	0.08		
	Mandate and subsidize emergency paid leave	33	0.15		
March 27	Coronavirus Aid, Relief, and Economic Security (CARES) Act				
	Economic Impact Payments	267	1.25		
	Emergency Increase in Unemployment Compensation Benefits	90	0.42		
	Pandemic Unemployment Assistance	28	0.13		
	Pandemic Emergency Unemployment Compensation	1	0.00		
	Reduction in individual taxes	6.7	0.03		

Source: Authors' calculations. See appendix A.

DIFFERENCES IN HOUSEHOLD INCOME SENSITIVITY TO DOWNTURNS

Why did the US Congress approve a much larger package than the French one if the combined effect of built-in income tax stabilizers and means-tested benefits is similar in both countries? The answer lies partly in the fact that it is more costly to introduce a completely new job retention scheme than extending an existing one. Political motivations may also matter in the run-up to the US

Table 6
Structure of French and US household disposable income, 2017
(percent of household gross adjusted disposable income)

Component	Total	Acyclical	Procyclical	Countercyclical
	France			
Gross wages	50	11	39	0
Employers' contributions	18	4	14	0
Business income	7	0	7	0
Rental income	10	10	0	0
Capital income	4	3	2	0
Transfers	50	46	0	4
Taxes	–13	0	0	–13
Employees' contributions	–27	–6	0	–21
Total	100	68	62	–30
	United States			
Gross wages	52	7	44	0
Employers' contributions	12	2	10	0
Business income	12	0	12	0
Rental income	9	9	0	0
Capital income	11	5	7	0
Transfers	25	22	0	2
Taxes	–12	0	0	–12
Employees' contributions	–8	–1	0	–7
Total	100	44	73	–17

Note: Household gross adjusted disposable income is the income adjusted for transfers in kind received by households provided for free or at reduced prices by government and nonprofit institutions serving households.

Sources: Organization for Economic Cooperation and Development (OECD); US Bureau of Economic Analysis (BEA); Center on Budget and Policy Priorities (CBPP); Direction de la Recherche, des Études, de l'Évaluation et des Statistiques (DREES); Institut National de la Statistique et des Études Économiques (INSEE); Conseil d'orientation des retraites (COR); authors' calculations.

presidential election of November 2020. But there is a more fundamental reason: Household income in France is better protected from cyclical downturns than in the United States.

Table 6 shows primary income (e.g., wages, personal business income), government transfers, and income taxes according to how they respond to the business cycle in the United States and France. The comparison uses the "adjusted household income" concept elaborated by the OECD to make

household income comparable internationally: Free individualized public services are valued on a cost basis, considering that households receive an offsetting in-kind transfer.[28]

Classifying primary incomes is relatively straightforward. Private sector wages and employers' social contributions, personal business income, and dividends respond quickly and positively to the business cycle and are thus classified as procyclical. If anything, the calculations presented in table 6 underestimate the difference between France and the United States as they do not account for differences in the cyclical response of employment to output and in wage flexibility.

Rental income, interest income, and compensation received by government employees respond less to the business cycle and with a lag. They are thus classified as acyclical. As mortgage interest rates are more flexible in the United States than in France, this classification again biases the calculations against finding a bigger difference in cyclicality between the two countries.

Transfer payments are differentiated between, on the one hand, health coverage and retirement payments, which for the most part do not respond to the business cycle, and, on the other hand, unemployment benefits, food stamps, and other social safety net programs, which do. They are thus categorized as either acyclical or countercyclical.

Taxes and employee contributions paid to the government reduce rather than increase household disposable income. Except for government employees' contributions, these decline significantly when the economy goes south and are thus classified as countercyclical.

Several results are notable from table 6. Despite not accounting for the higher cyclicality of unemployment to output and higher wage flexibility in the United States, the share of procyclical income is 18 percent higher in the United States than in France. This results from the higher share of business income, the higher share of dividends in capital income, and lower government employment.

Acyclical incomes are 55 percent higher in France compared with the United States. This mostly results from the higher share of acyclical transfers such as pensions from the pay-as-you-go system and transfers in kind corresponding to the free provision of education, health care, and some other individualized public services.

Countercyclical incomes in France are almost double those in the United States. This does not reflect higher income taxes as both countries reduce household disposable income by the same amount. The difference is also not due to much higher countercyclical transfers. Although higher in France than in the United States, these are too small—at less than 5 percent of disposable income—to meaningfully create any difference. Instead, the disparity is driven by higher employees' social contributions in France, which are used to finance the bulk of social transfers.

While it may be too early to say whether the US and French fiscal packages will manage to insure household disposable incomes against the pandemic-induced decline in economic activity, the results presented in table 6 show the

28 See, for example, INSEE (2018).

more volatile nature of US household income. This volatility calls for a larger discretionary fiscal response compared with Europe, where large-scale acyclical transfers, higher government employment, and a smaller share of volatile capital income render household income more stable.

CONCLUSIONS

Comparing economic support packages implemented in response to the COVID-19 crisis is not easy, but it is necessary to assess the relative effectiveness of national policies and to provide an objective basis for international coordination. Headline numbers provide very incoherent estimates of the magnitude of these packages.

Our approach aims to provide an objective basis for comparing support packages. It relies on a number of assumptions, some of which may be disputed, but we are confident that it delivers more reliable estimates of the support given to the household sector in the United States and France than headline numbers.

Our main finding is that, taking into account both automatic income stabilization mechanisms and discretionary measures, the US package is almost twice as large as the French package. However, it has proven less effective because of poor design and implementation.

The size of automatic mechanisms (defined as resulting from GDP-sensitive expenditures and high-elasticity receipts) does not differ markedly between the two countries. Macroeconomically, at least, neither income-elastic taxes nor countercyclical transfers distinguish the two countries. What differs is the cyclicality of household income: It is significantly lower in France because of the higher prevalence of acyclical transfers and public sector wages.

Extraordinary job retention schemes have played a significantly different role in France and in the United States. The French job retention scheme (*chômage partiel*) has been used extensively and has provided a very effective cushion to private sector employees. Despite the much larger size of the US schemes, PPP has proven much less effective because of poor design and implementation.

The bulk of the difference in size between the US and French packages can be ascribed to initiatives by the US legislature that aim to plug holes in the existing social insurance system. The French legislature has acted similarly but to a much more limited extent, given the country's extensive social insurance. We believe that comparison with other European countries equipped with comparably developed welfare states would yield similar results.

Time will tell if the incentives to rehire built into the PPP prove effective—and if the relative generosity of the French government-funded furlough scheme ends up slowing down the job recovery. But as an immediate crisis response, the French (and European) approach undoubtedly offered a bigger bang for the buck. The US crisis response initiative has been remarkably muscular. The fact that the results of this attempt have fallen short of what was hoped for in terms of job retention should not hide the significance of the policy shift agreed upon by the executive and legislative branches to maintain household income.

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APPENDIX A
COST ESTIMATES OF JOB RETENTION SCHEMES

In France, the total cost of *chômage partiel* depends on the cost per hour of partial unemployment, number of hours requested by firms, rate at which companies consume the requested hours, and number of weeks companies rely on *chômage partiel*.

The initial government estimate for the cost per hour was €14 (in the first amended budget bill, the total cost was €8.5 billion for 600 million hours of partial unemployment consumed). This seemed too high. An assumption that beneficiaries of the scheme are distributed evenly across the first eight deciles of the wage income distribution and excluding the two upper deciles, for which remote working is likely to be much more widespread, results in a cost of €11/hour. This is close to the €10/hour used by the government in its second amended budget bill.

By May 18, 2020, companies had requested authorization for 5.5 billion hours of partial unemployment (*demande d'autorisation préalable*, DAP) for more than 12 million employees and for an average duration of 3 months. Assuming that the 3-month period starts in mid-March and that companies rely on the job retention scheme until the end of May implies that authorization for more than 4.5 billion hours of partial unemployment was requested during that period. Assuming that companies request compensation (*demande d'indemnisation*, DI) at a rate of 60 percent (DI/DAP) gives a total of 2,725 million hours of partial unemployment consumed for a total cost of €30 billion or 1.2 percent of GDP. This is much higher than the €8.5 billion initially budgeted by the government in mid-March but relatively close to the most recent estimate of €24 billion published in mid-April.

Preliminary data on reimbursement requests (DIs) for March suggest a lower consumption rate (DI/DAP) than the one assumed in our calculation. As of May 5, reimbursement requests had been submitted for only 40 percent of employees potentially covered by the scheme. But this number was revised to 48 percent on May 11 and then 51 percent on May 18 (companies have up to one year to submit reimbursement requests). The relatively low estimate is also driven by large firms for which it is less urgent (because of higher liquidity buffers) and operationally more complicated (because of the large number of employees) to submit reimbursement requests. As of May 18, the estimate was 70 percent for firms with fewer than 50 employees and 30 percent for firms with more than 250 employees (DARES 2020).

In the United States, the $349 billion that the CARES Act appropriated for PPP ran dry fast. An additional $321.3 billion was appropriated for the PPPHCE Act.[29] According to CRFB's COVID Money Tracker,[30] $186 billion of the total amount appropriated have been used by the end of May. The loan proceeds must be used to cover payroll costs, mortgage interest, rent, and utility costs with not more than 25 percent of the loan forgiveness amount attributable to nonpayroll

29 See www.cbo.gov/publication/56338.

30 See www.crfb.org/blogs/covid-money-tracker-policies-enacted-to-date. The June 8, 2020 update is used.

costs.[31] Given the reduced need for labor during the lockdown period and the subsidy for nonpayroll expenditures embedded in the scheme, our estimates assume that firms make full use of the 25 percent available for nonpayroll expenditures. Since employers' social contributions account for 16 percent of total employee compensation and are included in eligible payroll costs, the figures in table 1 correspond to 63 percent (75 percent times 84 percent) of $349 billion for the CARES Act and 63 percent (75 percent times 84 percent) of $186 billion for the PPPHCE Act.

The CARES Act also appropriates up to $32 billion in payroll support to the airline industry to maintain employment and avoid job cuts, $10 billion for grants through the SBA's Economic Injury Disaster Loans to help small employers cover payroll costs to retain employees, and up to $58 billion for a broad-based refundable tax credit designed to encourage employers to keep employees on their payroll.

As of May 12,[32] Treasury had approved over $25 billion in assistance to 352 applicants from the aviation industry, which is more than the total outlays projected by CBO for FY2020.[33] Per Treasury guidance, airlines will receive around 70 percent of the assistance of the Air Carrier Worker Support program in the form of a government grant and 30 percent in the form of a low-interest loan. We assume that an additional $5 billion was approved since May 12 and that 16 percent is used for employers' social contributions. The amount in table 1 is thus obtained as 59 percent (70 percent times 84 percent) of $30 billion.

As of May 8, the SBA had approved over three million Emergency EIDL grants, totaling nearly $9.9 billion. The PPPHCE Act appropriated an additional $10 billion for Emergency EIDL grants that we assume have also been fully disbursed. For the Employment Retention Credit, the total expected outlays for FY2020 are prorated and amount to one-third (2 months over 6 months) of the $49 billion. The amounts in table 1 account for employers' social contributions and are thus obtained as 84 percent of the above-mentioned sums.

COST ESTIMATES OF SOCIAL SAFETY NET ENHANCEMENTS

Several small measures have been announced to complement the social safety net in France.

For very small firms, self-employed workers and microentrepreneurs experiencing a sharp drop (50 percent) in revenue year on year or subject to administrative closure, a solidarity fund has been established to disburse a lump-sum allowance of up to €1,500 per month per individual. In the first amended budget bill, the amount budgeted for the fund was €1 billion; in the second, the amount was increased to €7 billion. By the end of May, €3.4 billion had been disbursed.[34]

31 The requirement that 75 percent of the loan forgiveness amount be spent on payroll costs was reduced to 60 percent following the enactment of the Paycheck Protection Program Flexibility Act on June 5, 2020. See https://home.treasury.gov/news/press-releases/sm1026.

32 See https://home.treasury.gov/news/press-releases/sm1008.

33 See www.cbo.gov/system/files/2020-04/hr748.pdf.

34 See www.economie.gouv.fr/covid19-soutien-entreprises/aides-versees-fonds-solidarite.

For quarantined individuals, for parents with young children who cannot continue working because of the closure of day care and schools, and for individuals with health conditions that put them at risk of developing a severe form of COVID-19, the French government pays daily allowances at an estimated cost of €1.5 billion. Benefits for the unemployed whose rights expire during the lockdown are automatically extended at a cost of €0.5 billion.

In the second amended budget bill, an envelope of €2.5 billion was made available for emergency relief spending. Some of that is used to send direct cash transfers of €150 per adult and €100 per child to about 4 million households on welfare benefits, at a cost of €900 million.

Bonus payments of up to €1,000 will also be disbursed to healthcare workers and government employees who have been "particularly mobilized" during the crisis. The cost for healthcare workers is estimated to be €1.3 billion. According to government estimates, 1 in 5 state employees (400,000)[35] should be eligible for the bonus payment. Assuming an average payment of €500 and the same eligibility for local government employees, the overall cost is assumed to be around €500 million.

In the United States, by contrast, the emergency legislation includes numerous measures that improve the existing social insurance system (e.g., a $600 weekly top-up to unemployment insurance benefits, tax credits for sick leave) as well as direct cash transfers to households.

The amounts reported in table 5 for the FFCRA and the CARES Act are obtained from CRFB's COVID Money Tracker.[36]

For the FFCRA, out of the $105 billion authorized for emergency paid leave, $33 billion have been disbursed. Out of the $50 billion authorized for the increase in Medicaid matching funds, $17 billion have been disbursed. Out of the $22 billion to increase SNAP benefits and funding for nutrition programs, $3 billion have been disbursed. Out of the $5 billion appropriated to extend unemployment benefits past 26 weeks, $1 billion have been disbursed.

For the CARES Act, out of $35 billion appropriated for Pandemic Unemployment Assistance, which helps unemployed who are not usually eligible for regular state unemployment insurance benefits, $28 billion have been disbursed.[37] For the Emergency Increase in Unemployment Compensation Benefits, which increases unemployment benefits by $600 per week until the end of July, $90 billion of the $175 billion appropriated by the CARES Act have been disbursed. For the Pandemic Emergency Unemployment Compensation, which extends eligibility of regular unemployment benefits, $1 billion of the $12 billion projected to be spent in FY2020 and $51 billion appropriated by the CARES Act have been disbursed. Altogether, 45 percent of the $262 billion appropriated by the CARES Act for additional unemployment insurance has been disbursed by the end of May.

35 See www.acteurspublics.fr/articles/des-primes-speciales-crise-pour-1-agent-de-letat-sur-5-mais-pas-forcement-1-000-euros-pour-tous.

36 See www.crfb.org/blogs/covid-money-tracker-policies-enacted-to-date. The June 8, 2020, update is used.

37 Appropriated amounts and projected outlays by fiscal years are available at www.cbo.gov/publication/56334.

The US Treasury began to deposit stimulus checks in taxpayers' accounts starting in mid-April. The Congressional Budget Office and the Joint Committee on Taxation estimate that this will increase outlays and decrease revenues by a total amount of $293 billion over the 2020–21 period.[38] As of May 22, Treasury and the Internal Revenue Service reported that 152 million individuals had received payments worth almost $258 billion in the program.[39] According to CRFB's COVID Money Tracker, $267 billion or more than 90 percent of the total amount appropriated by the CARES Act was disbursed by the end of May. According to CRFB (2020), the CARES Act also reduces individual taxes by about $20 billion. We assume that this reduction in tax liability is distributed uniformly over the fiscal year. Since April and May account for two of the six months remaining in FY2020, $6.7 billion is included in table 5.

38 See www.cbo.gov/publication/56334.

39 See www.irs.gov/newsroom/treasury-irs-release-latest-state-by-state-economic-impact-payment-figures-for-may-22-2020.

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