

University of Colorado Law School

Colorado Law Scholarly Commons

Articles

Colorado Law Faculty Scholarship

2020

Public Purpose Finance: The Government's Role as Lender

Nadav Orian Peer

University of Colorado Law School

Follow this and additional works at: <https://scholar.law.colorado.edu/articles>



Part of the [Administrative Law Commons](#), [Banking and Finance Law Commons](#), [Housing Law Commons](#), [Law and Race Commons](#), and the [Legislation Commons](#)

Citation Information

Nadav Orian Peer, *Public Purpose Finance: The Government's Role as Lender*, 83 LAW & CONTEMP. PROBS. 101 (2020), available at <https://scholar.law.colorado.edu/articles/1269>.

Copyright Statement

Copyright protected. Use of materials from this collection beyond the exceptions provided for in the Fair Use and Educational Use clauses of the U.S. Copyright Law may violate federal law. Permission to publish or reproduce is required.

This Article is brought to you for free and open access by the Colorado Law Faculty Scholarship at Colorado Law Scholarly Commons. It has been accepted for inclusion in Articles by an authorized administrator of Colorado Law Scholarly Commons. For more information, please contact erik.beck@colorado.edu.

PUBLIC PURPOSE FINANCE: THE GOVERNMENT'S ROLE AS LENDER

NADAV ORIAN PEER *

I

INTRODUCTION

The U.S. federal government runs a \$10.2 trillion lending portfolio.¹ That is a very large portfolio. How large? Well, it is slightly larger than the entire U.S. corporate bond market (\$9.2 trillion)² and the same size as all loans extended by U.S. insured depository institutions (\$10.4 trillion).³ It also equals about half of U.S. gross national debt (\$22 trillion),⁴ and a quarter of the entire U.S. fixed-income market (\$43 trillion).⁵ In fact, it appears to be the second largest lending portfolio in the world, second only to China's "big four" state banks that have total assets of \$14 trillion.⁶ Then again, if we normalize the two portfolios by the purchasing power parity (PPP) of their countries' GDPs, their sizes are nearly identical.⁷ Another way to gauge the size of U.S. government lending is to look

Copyright © 2020 by Nadav Orian Peer.

This Article is also available online at <http://lcp.law.duke.edu/>.

* Associate Professor, Colorado Law. For valuable comments and suggestions, I would like to thank Mehrsa Baradaran, Tamim Bayoumi, Christine Desan, Erik Gerding, Charles Kahn, Roy Kreitner, Morgan Ricks, Stacy Seicshnaydre, Scott Skinner-Thompson, Sloan Speck, Issue editors Anna Gelpert and Adam Levitin, and participants in the Law and Macroeconomics Conference at Georgetown Law on September 27–28, 2019. Cara Groseth and Tyler Owen provided outstanding research assistance, and were a pleasure to work with. This Article also benefited from group discussions in a seminar I taught in Tulane Law School in fall 2018. Hearty thanks to the students who contributed so much to that seminar. Last but not least, my thanks go to Roxanne Degens and the editors of *L&CP* for their superb work. All mistakes are my own.

1. See Nadav Orian Peer, *Public Purpose Finance: Data Appendix*, 83 LAW & CONTEMP. PROBS., no. 1, 2020, at pt. II tbls.1 & 2 (rounding "Total GSE PPF" (\$6,829 billion) and "Total Direct Gov. PPF" (\$3,372 billion) added values) [hereinafter *Data Appendix*]. The *Data Appendix* is available at <https://scholarship.law.duke.edu/lcp/vol83/iss1/7> (follow "Data Appendix" link). "Lending portfolio" does not fully capture the institutional complexities of government involvement. See *infra* Part II.

2. *Fixed Income Outstanding: 2 Year Interval*, SEC. INDUS. & FIN. MKT. ASS'N [SIFMA], <https://www.sifma.org/resources/research/fixed-income-chart/> [<https://perma.cc/K82V-UXD7>].

3. This figure is for the third quarter of 2019. FED. DEPOSIT INS. CORP., *Quarterly Banking Profile: Third Quarter 2019*, 13 FDIC Q. 1, 5 (2019), <https://www.fdic.gov/bank/analytical/quarterly/2019-vol13-4/fdic-v13n4-3q2019.pdf> [<https://perma.cc/ZB2H-UAG4>] [hereinafter FDIC].

4. *Data Appendix*, *supra* note 1, at pt. III tbl.1. As discussed below, government lending is largely excluded from the gross national debt figure. The main exception is student loans.

5. SIFMA, *supra* note 2.

6. Xize Kang et al., *World's Biggest Banks Sink to Record Lows as China Pain Spreads*, BLOOMBERG NEWS (Aug. 4, 2019), <https://www.bloomberg.com/news/articles/2019-08-04/world-s-biggest-banks-trade-at-record-lows-as-china-pain-spreads> [<https://perma.cc/D9CE-DSSB>].

7. In the third quarter of 2019, U.S. GDP was \$21.5 trillion. *Gross Domestic Product*, FED. RESERVE BANK OF ST. LOUIS ECON. RESEARCH, <https://fred.stlouisfed.org/series/GDP>

at the amount of loans it extends on an annual basis—currently \$1.4 trillion⁸—which is also a very large number. It equals around one third of total U.S. federal government spending in 2018 (\$4.1 trillion),⁹ and considerably greater than discretionary non-defense spending during the same period (642 billion).¹⁰

This Article’s title—“Public Purpose Finance” (PPF)—refers to the broad range of institutions through which the government extends credit (its \$10.2 trillion lending portfolio) to private borrowers in sectors like housing, education, agriculture, and small business.¹¹ This lending is funded through public and quasi-public debt. Despite its enormous size, PPF receives little attention compared to government spending, taxation, and deficits. The latter budgetary figures are at the heart of political debates, yet government policy is to a considerable extent achieved through loans. The premise of this Article is that understanding PPF matters every bit as much as understanding these more familiar institutions.

PPF matters for macroeconomics. Determining the desired level of government deficits to stabilize aggregate demand is one of the chief concerns of macroeconomics. Omitting PPF from macroeconomic analysis can result in a considerable gap between the image of government’s fiscal stance and actual financial flows. What is more, as discussed below, raising the level of government lending is arguably far easier—legally and politically—than raising the level of ordinary spending. For macroeconomists, a deeper understanding of PPF will help to more consciously design the mix of government lending and spending in stimulus packages.

PPF matters for democracy. We live in a society that places intense focus on the federal budget. Annual budgeting is understood as the main political process where citizens—through their representatives—determine their economic priorities by assigning them dollar figures. Despite PPF’s enormous size, government lending is largely insulated from the budgetary process. At \$1.4 trillion,¹² government annual lending is so large compared to ordinary spending that the lack of public discussion around it causes a real democratic deficit. For those concerned with democratic accountability, a deeper understanding of PPF can help redesign lending procedures to be more sensitive to voter input.

PPF matters for racial inequality. Since the New Deal, government lending programs have played a key role in facilitating upward-mobility for borrowing

[<https://perma.cc/DWP6-3XAF>] (last updated Dec. 20, 2019). China’s 2019 GDP, based on PPP was \$27.3 trillion. Prableen Bajpai, *The 5 Largest Economies In The World And Their Growth In 2020*, NASDAQ (Jan. 22, 2020), <https://www.nasdaq.com/articles/the-5-largest-economies-in-the-world-and-their-growth-in-2020-2020-01-22> [<https://perma.cc/8S58-95H8>].

8. CONG. BUDGET OFFICE [CBO], FAIR-VALUE ESTIMATES OF THE COST OF FEDERAL CREDIT PROGRAMS IN 2020, at 1 (May 2019). Note, however, that every year a portion of government lending matures, so the overall figure does not represent a net increase in government lending.

9. *Data Appendix*, *supra* note 1, at pt. III tbl.1.

10. *Id.*

11. The term public purpose finance is borrowed from Michael Lind, *Public Purpose Finance*, NEW AMERICA (Sept. 9, 2010), <https://www.newamerica.org/economic-growth/policy-papers/public-purpose-finance/> [<https://perma.cc/G8Q6-AK5N>].

12. See CBO, *supra* note 8, at 1 (estimating the total amount of federal credit assistance for 2019).

households. As historical work on the pre-Depression housing market teaches, government lending results in far more than marginal cost savings to borrowers: it is a game changer, opening access to affordable credit, where no such access existed previously.¹³ For decades, these benefits—so foundational to the creation of the American middle-class—were denied from people of color, on grounds explicitly racist and segregationist.¹⁴ Disparity in access to quality housing credit persists today, as African American and Latino households receive only approximately twenty-five percent and forty-percent of the shares of the credit they would have otherwise received with equal access.¹⁵ The insulation PPF enjoys from the budget makes it a powerful technology for upward mobility, and in this sense, a force for equality. The dark side of this technology is the discriminatory way in which it has been used, aggravating racial inequality for nearly a century. For civil right advocates, a deeper understanding of PPF can help mitigate these lending disparities.

Last but not least, PPF matters for climate change. Climate policy to stay within a 2°C warming scenario would require channeling trillions of dollars over a short time horizon, one to three decades at most.¹⁶ Given the magnitude of the amounts involved, any serious attempt to deal with climate change would likely involve government lending of trillions of dollars over the coming decades. For climate advocates, a deeper understanding of PPF is a powerful tool in formulating a robust action plan.

My focus in this Article is with the United States, but PPF is common across the world. National development banks, for example, have played an important role in the industrialization trajectories of many economies, including in Latin

13. See Adam J. Levitin & Susan M. Wachter, *The Public Option in Housing Finance*, 46 U.C. DAVIS L. REV. 1111, 1120–30 (2013). This notion of a game changing policy is often absent from econometric studies. Such studies try to estimate the benefits of GSE lending to borrowers by calculating the rate differential (spread) between GSE conforming loans, and non-conforming “jumbo” loans funded by private lenders. See, e.g., Wayne Passmore et al., *The Effect of Housing Government Sponsored Enterprises on Mortgage Rates*, 33 REAL EST. ECON. 427, 427–26 (2005). In my view, this methodology raises serious questions. While private lenders are willing to absorb a limited amount of mortgage credit risk, it is unlikely that spreads would remain anywhere near current levels if trillions of dollars in exposure were transferred to the private sector (the supply of risk capital is far from inelastic).

14. See Lisa Rice, *The Fair Housing Act: A Tool for Expanding Access to Quality Credit*, in THE FIGHT FOR FAIR HOUSING 76, 81, 85 (Gregory D. Squires ed., 2018) (discussing how governmental eligibility criteria for credit programs were shaped by theories of racial hierarchy, specifically noting that a long history of “redlining” aggravated racial wealth gaps, with white families’ housing appreciating at a much faster rate than families of color).

15. While the proportion of African Americans and Latinos in the population in 2018 was 13.4% and 18.3% respectively, their share of home purchase mortgages in 2016 were 3.4% and 7.6% respectively. *Quick Facts*, U.S. CENSUS BUREAU (2018), <https://www.census.gov/quickfacts/fact/table/US/PST045219> [<https://perma.cc/V8RB-4DXV>] (select “Population estimates”); FED. HOUS. FIN. AGENCY [FHFA], ANNUAL HOUSING REPORT 2017, at 13 tbl.6 (Oct. 30, 2017), <https://www.fhfa.gov/AboutUs/Reports/Pages/Annual-Housing-Report-2017.aspx> [<https://perma.cc/CRM2-DYH3>]. Further, note that mortgage shares reported by FHFA refer to the number of mortgages as opposed to the dollar amount borrowed. This likely results in an underestimate of the level of racial inequality.

16. See generally U.N. ENV’T PROGRAMME, EMISSIONS GAP REPORT 2018 xiv, 54 (Nov. 2018).

America and Asia. At the international level, multilateral development banks provide an important forum for regional cooperation and international assistance. These complex institutions require a study of their own, and are not addressed here.

This Article proceeds as follows. Part II surveys and quantifies the scope of PPF. Part III demonstrates that PPF enjoys a considerable degree of insulation from the budgetary process. Part IV develops an explanation of the political logic of government lending and provides the heart of the Article. Simply put, it is politically more feasible to invest in social mobility through loans—which typically do not require tax increases—than through ordinary spending. A model formalizing some of these claims is available in the Appendix.¹⁷ Part V analyzes the benefits that PPF confers to eligible borrowers, and the inequalities created by denial of eligibility. I conclude that government should keep lending off-budget—given that borrowers, not taxpayers, are the ones typically repaying loans—but should set-up alternative modes of political participation. Government lending, like the budget, should become a key tool for society to formulate its economic agenda.

Before moving to the body of the Article, a caveat is in place. This is an early exploration into a subject that raises complex legal, historical, and economic questions. Much remains to be discovered and corrected. To begin grappling with these questions, I have resorted to simplifying assumptions that are discussed where applicable. In future work, I hope to revise and refine this account.

II

SIZE AND COMPOSITION OF PUBLIC PURPOSE FINANCE

In the United States, PPF includes two sub-systems: direct credit provision by the government, totaling nearly \$3.4 trillion;¹⁸ and \$6.8 trillion in indirect credit provision through government state enterprises (GSEs).¹⁹ I begin with the latter, which will be more familiar to most readers.

The most famous example of PPF is the role that Fannie Mae and Freddie Mac—the two largest GSEs—play in the in the housing finance system. With some simplification, their role could be described as follows. First, mortgage borrowers borrow from “originators” like commercial banks and mortgage companies. If the mortgages extended conform to Fannie and Freddie’s underwriting guidelines, originators can have Fannie and Freddie bundle the mortgages into mortgage-backed securities (MBS) and guarantee those MBS for a fee. The ensuing securities, called agency MBS, are essentially riskless. Fannie and Freddie’s obligations have enjoyed explicit Treasury support since their entry

17. See Nadav Orian Peer, *Public Purpose Finance: Model Appendix*, 83 LAW & CONTEMP. PROBS., no. 1, 2020 [hereinafter *Model Appendix*]. The *Model Appendix* is available at <https://scholarship.law.duke.edu/lcp/vol83/iss1/7> (follow “Model Appendix” link).

18. *Data Appendix*, *supra* note 1, at pt. II tbl.2.

19. *Id.* at pt. II tbl.1.

into government conservatorship in 2008, and have received implicit guarantees long before then.²⁰ Functionally, agency MBS are just another flavor of U.S. treasuries.²¹

As of 2018, outstanding agency MBS were at about \$5.4 trillion,²² representing a large subset of the entire U.S. fixed income market (\$43 trillion).²³ They make an even larger subset of total mortgages outstanding for U.S. households, which is around \$10.4 trillion.²⁴ For further reference, consider the fact that all U.S. depository institutions (commercial banks and similarly chartered entities) hold only \$2.5 trillion in residential mortgages and home equity lines.²⁵ When we add up other PPF programs in the housing market, it is evident that around 80% of U.S. residential mortgages are funded through one variety or another of PPF securities.²⁶ Functionally, this is the same as saying that three quarters of residential mortgage debt is funded through Treasury debt.

Fannie and Freddie are the largest GSEs, but there are others. The Federal Home Loan Banks (FHLB) act as lenders to depository institutions, funding mainly bank mortgages by providing \$800 billion in advances.²⁷ The Farm Credit System and Farmer Mac are two GSEs that provide credit to agriculture, currently at approximately \$270 billion²⁸ and \$20 billion,²⁹ respectively. These figures are small in comparison to Fannie and Freddie, but they make around three quarters of farm sector debt (\$410 billion).³⁰ In education, Sallie Mae was

20. The structure of Treasury support since the 2008 financial crisis is complex and has evolved over time. *See generally* CONG. RESEARCH SERV., R44525, FANNIE MAE AND FREDDIE MAC IN CONSERVATORSHIP: FREQUENTLY ASKED QUESTIONS (2019). For the government implicit guarantee of the GSEs before the conservatorship, see Richard S. Carnell, *Handling the Failure of a Government Sponsored Enterprise*, 80 WASH. L. REV. 565, 583 (2005).

21. While agency MBS are riskless (like treasuries), it is worth noting their interest rate risks attributes differ. Investors in agency MBS bear prepayment risk, which is the risk of early payment by mortgage borrowers refinancing in a low interest rate environment. *See generally* Mikhail Chernov, Brett R. Dunn & Francis A. Longstaff, *Macroeconomic-Driven Prepayment Risk and the Valuation of Mortgage-Backed Securities*, 31 REV. FIN. STUD. 1132 (2018).

22. *See Data Appendix, supra* note 1, at pt. II tbl.1 (adding Fannie Mae and Freddie Mac total guarantees for 2018).

23. SIFMA, *supra* note 2.

24. *Financial Accounts of the United States: L101 Households and Nonprofit Organizations*, FED. RESERVE BD., (last updated Sept., 2019), <https://www.federalreserve.gov/releases/z1/20190920/html/l101.htm> [<https://perma.cc/N8TV-FF6H>].

25. This value comes from adding \$2,119 billion in family residential mortgage and \$375 billion in home equity lines. *See* FDIC, *supra* note 4, at 5 tbl.II-A.

26. The Federal Housing Administration and Veterans Affairs guarantee \$1,327 and \$168 billion in loans respectively, for a total of \$1.5 trillion. *Data Appendix, supra* note 1, at pt. II tbl.2. Together with the total GSE PPF (\$6.8 billion), this amounts to \$8.3 trillion out of \$10.4 trillion total residential mortgages. FED. RESERVE BD., *supra* note 24.

27. *Data Appendix, supra* note 1, at pt. II tbl.1.

28. *Id.*

29. *Id.*

30. Katie Dehlinger, *Minding Ag's Business: Banks, Farm Credit Split Overall Farm Debt Load, But Portfolios Differ*, DTN.COM: PROGRESSIVE FARMER (Jan. 1, 2019), <https://www.dtnpf.com/agriculture/web/ag/blogs/minding-ags-business/blog-post/2019/01/28/banks-farm-credit-split-overall-farm> [<https://perma.cc/3QEB-Z3MV>].

historically a GSE with a major share of the student loan market. It was privatized in the mid-2000's, and later eclipsed by the Obama administration's switch to direct lending through the Department of Education (DoED).³¹ Unlike Fannie and Freddie, the debt securities of these entities are not, at present, officially supported by the Treasury. And yet, every time a GSE came close to failure, public support was provided, such that a GSE default would be an unprecedented event.³² Agency debt, to reiterate, is just another flavor of Treasury securities.

The second type of PPF activity takes place within the government. At nearly \$3.4 trillion, direct government PPF is smaller than the GSE variety, but it's been rapidly growing from \$1.5 trillion in 2008.³³ The two largest government PPF programs are DoED student loans, and the Department of Housing and Urban Development's (HUD's) support of moderate-to-low income housing through the Federal Housing Administration (FHA). DoED's current lending to students and their families is \$1.2 trillion,³⁴ out of \$1.5 trillion outstanding total student debt.³⁵ About half of the difference between these values (\$150 billion) represents legacy loans with DoED guarantees that have been phased out since the Obama era reforms.³⁶ The government is virtually the sole lender in the student debt market. Funding for DoED loans comes from the Treasury, and the Treasury, in turn, funds its transfers to DoED through general borrowing (mainly, floating of securities).³⁷

HUD's efforts to support moderate-to-low income housing take a different shape from DoED student loans. While DoED lends directly, HUD provides mortgage insurance through the FHA. The origination process for FHA mortgages is similar to GSE conforming mortgages. Mortgages originated by private lenders are bundled in MBS and sold to investors. For FHA mortgages, the securitizing entity is Ginnie Mae, a wholly-owned government corporation.³⁸ Ginnie Mae securities are riskless, just like U.S. treasuries and agency MBS. The total amount

31. See Suzanne Mettler, *Reconstituting the Submerged State: The Challenges of Social Policy Reform in the Obama Era*, 8 PERSP. ON POL. 803, 816 (2010) (stating that "the existing system of student lending was terminated and replaced entirely by direct lending" under the Obama administration). Note that even before the Obama administration reforms, most student loans were guaranteed by the Department of Education.

32. See Carnell, *supra* note 20, at 623–24 (crediting the GSE rescues to Congress' lack of a practical alternative).

33. *Data Appendix, supra* note 1, at pt. II tbl.2.

34. *Id.*

35. See FED. RESERVE BANK OF N.Y., QUARTERLY REPORT ON HOUSEHOLD DEBIT AND CREDIT 2018:Q4, at 1 (Feb. 2019), https://www.newyorkfed.org/medialibrary/interactives/householdcredit/data/pdf/hhdc_2018q4.pdf [<https://perma.cc/ZH3R-UU2K>] (listing outstanding student loan debt at \$1.46 trillion).

36. See *Data Appendix, supra* note 1, at pt. II tbl.2 (listing \$154 billion in "Education" guarantees).

37. For this reason, the total figure of gross national debt (\$22 trillion) should conceptually be adjusted down by the amount of student loans funded (\$1.2 trillion), which do not represent "spending" in the familiar sense.

38. See 12 U.S.C. § 1716(b) (2018) (creating Ginnie Mae); 12 U.S.C. § 1721(g)(1) (2018) (authorizing Ginnie to securitize specific types of loans).

of FHA guarantees outstanding is around \$1.3 trillion.³⁹

There are a whole range of smaller PPF federal programs that follow the HUD or FHA guarantee model. Those include the Veterans Housing Benefit Programs (\$168 billion), the Department of Agriculture’s “rural housing services” (\$111 billion), and Small Business Administration (SBA) loans (\$106 billion).⁴⁰ These various guarantees amount to \$2 trillion, which is also roughly the amount of Ginnie Mae securities outstanding at present.⁴¹

III

PPF PROGRAMS’ INSULATION FROM THE BUDGET

This Part discusses the legal environment where PPF programs are authorized. It does so through a high-level comparison to the law governing ordinary government spending. The overarching theme is that PPF enjoys considerable insulation from the budgetary process, not to mention from the annual cycle of budgetary politics. The degree of insulation is nearly absolute with respect to GSEs, and is considerable even for government PPF programs.

For government spending to be lawful, Congress must first enact legislation authorizing that spending.⁴² Where the spending is discretionary rather than mandatory, there is an additional requirement that spending must be appropriated annually through the budgetary process.⁴³ Mandatory spending currently comprises around \$2.5 trillion out of \$4.1 trillion of total spending.⁴⁴ It refers primarily (though not exclusively) to entitlement programs like Social Security, Medicare, and Medicaid. These programs do not require annual appropriations because the amounts due to beneficiaries are pre-determined in authorizing legislation (for example, benefits are preset under the Social Security Act). In this sense, entitlement programs effectively run on autopilot: entitlement amounts are set for relatively long intervals and are only subject to political input when the underlying entitlements are revised, as opposed to the high-frequency—annual—decisions on discretionary spending.

Discretionary spending, currently at approximately \$1.3 trillion,⁴⁵ refers to instances where government is not obligated to spend and enjoys greater

39. *Data Appendix, supra* note 1, at pt. II tbl.2.

40. *Id.*

41. *Id.*

42. See U.S. CONST. art. I, § 9, cl. 7 (prohibiting the withdrawal of funds without Congressional appropriation).

43. David Burd & Brad Shron, *Analysis & Critique of Specialized Rules: Discretionary Caps, Spending Targets, and Committee Allocations* 6 (Harvard Law Sch. Fed. Budget Policy Seminar, Briefing Paper No. 1, 2009).

44. *Data Appendix, supra* note 1, at pt. III tbl.1. This figure does not include net interest on government debt (an additional \$325 billion). CONG. BUDGET OFFICE, THE BUDGET AND ECONOMIC OUTLOOK: 2019 TO 2029, at 7 (Jan. 2019), <https://www.cbo.gov/system/files/2019-03/54918-Outlook-3.pdf> [<https://perma.cc/7RL8-59PS>].

45. *Data Appendix, supra* note 1, at pt. III tbl.1.

flexibility. About one half of discretionary spending goes to defense, with the remaining \$642 billion funding an extremely diverse set of government activities.⁴⁶ This pot of \$0.6 trillion non-defense spending receives heightened political attention regarding how it will be appropriated, yet is less than one half the amount of PPF loans extended every year (\$1.4 trillion).⁴⁷ This illustrates the democratic deficit discussed in Part I.

Other key components of government spending include the computation of the deficit figure and the statutory ceiling on the national debt. Both of these components are of considerable legal and political significance. The deficit is defined as the difference between outlays and receipts for a given fiscal year.⁴⁸ Legally, under the PAYGO rule, legislation that increases future deficits from mandatory spending must be offset by other cuts in mandatory spending (or tax increases).⁴⁹ Politically, the deficit figure is at the heart of public debates over the budget, and support or objection to particular reforms often turns (and is even more often framed) in terms of its influence on the deficit.⁵⁰ Then, there's the famous "debt limit," a statutory ceiling on the national debt, that Congress uses to limit the Treasury from incurring new borrowing.⁵¹ The national debt figure is of intense political significance because the hard and fast breaks imposed by the debt limit mean these debates culminate in dramatic last-minute compromises or serious financial disturbances.⁵²

With this basic description in mind, where does the process for approving PPF lending stand in relation to ordinary budget spending? For the GSE segment, the answer is short and simple: GSEs are not formally part of government, therefore their lending does not count as government spending requiring authorization or appropriation.⁵³ With rare exceptions, GSE activity is entirely independent of the congressional budget cycle and excluded from deficit and debt ceiling accounting. GSEs orbit in a parallel legal universe, where ordinary government spending rules do not apply.⁵⁴

46. *Id.*

47. *Id.* at pt. II tbl.2.

48. 2 U.S.C. § 622(6) (2018).

49. Statutory Pay-As-You-Go Act of 2010, 2 U.S.C. §§ 931–939 (2018). See generally ROBERT KEITH, CONG. RESEARCH SERV., R41157, THE STATUTORY PAY-AS-YOU-GO ACT OF 2010: SUMMARY AND LEGISLATIVE HISTORY (2010).

50. See Howell E. Jackson, *Counting the Ways: The Structure of Federal Spending* 11 (Harvard John M. Olin Discussion Paper Series, Discussion Paper No. 583, Feb. 2007) (stating that "projected budgetary aggregates and public deficit levels become public benchmarks against which politicians score fiscal points or incur fiscal penalties").

51. 31 U.S.C. § 3101(b) (2018). For the current state of the debt ceiling, see CONG. RESEARCH SERV., R43389, THE DEBT LIMIT SINCE 2011 (updated Aug. 29, 2019).

52. See, e.g., Jonathan Weisman & Ashley Parker, *Shutdown Is Over*, N.Y. TIMES (Oct. 17, 2013), <https://www.nytimes.com/2013/10/17/us/congress-budget-debate.html> [<https://perma.cc/ZX2N-KPFK>].

53. See Jackson, *supra* note 50, at 38 ("Privately owned GSEs, such as Fannie Mae, are not consolidated into the Financial Statements of the United States . . .").

54. Some limited exceptions to this rule emerged as part of Treasury's support of the GSEs since the financial crisis. The Treasury purchased senior preferred stock in the GSEs, and, subject to ongoing litigation by the common shareholders, is entitled to receive dividends from them. The dividends, to take

That said, GSEs are, of course, chartered by Congress, and their charters specify the activities they may pursue. The Fannie Mae Charter Act defines the types of mortgages eligible for purchase by Fannie, the largest GSE, and authorizes Fannie to fund these mortgages via borrowing and securitization.⁵⁵ This funding authority is broad, and not restricted by any numeric limitations. Congress does not decide how much Fannie can borrow. While Fannie is subject to some balance sheet restrictions by its regulator (FHFA), they are formulated according to financial regulatory concerns (safety and soundness) rather than budgetary concerns (distribution of social resources).⁵⁶

The types of residential mortgages eligible for GSE purchase are also rather broad, and formulated more in the language of credit risk, rather than access to credit. With some simplification, Fannie is allowed to purchase mortgages as long as loan-to-value ratio is below 80% (or if the portion above 80% is privately insured).⁵⁷ Maximum conforming loan limits (currently \$484,000⁵⁸) are meant to restrict access to high-income borrowers, but the limitation is more than twice the median home price (\$231,700⁵⁹), and is indexed in ways that provide even greater flexibility (up to \$726,000 in high cost areas).⁶⁰ GSEs are also bound by affordable housing goals that require them to dedicate a portion of the mortgages they guarantee to low and moderate income (LMI) households.⁶¹ As a practical matter, however, GSEs can always meet these goals as long as they do not fall behind private market performance.⁶² All of this goes to show that while Congress included the provision of LMI housing credit as one of the GSEs' statutory purposes,⁶³ congressional control over the actual distribution of their resources is feeble when compared to the budgetary process.

PPF programs within government are only slightly more connected to the

one example, constitute an on-budget receipt for the government. See KATIE JONES ET AL., CONG. RESEARCH SERV., R45710, HOUSING ISSUES IN THE 116TH CONGRESS 12 (updated Aug. 13, 2019).

55. See Federal National Mortgage Association Charter Act, 12 U.S.C. §§ 1716, 1717, 1719 (2018).

56. The 2008 amendments to the GSE Act established the Federal Housing Finance Agency (FHFA), and provide it with regulatory authority over the GSEs. See 12 U.S.C. § 4511 (2018). The codification of the act in Title 12 of the U.S. Code (Banks and Banking) is telling in itself. Since its founding, FHFA also acts as Fannie's conservator, and as such, has direct control—in addition to regulatory supervision—over its balance sheet. The Treasury's current position as a shareholder in the GSEs introduces an additional layer of complexity which is beyond the scope of this Article.

57. 12 U.S.C. § 1717(b)(2) (2018).

58. See Press Release, Fed. Housing Fin. Agency, FHFA Announces Maximum Conforming Loan Limits for 2019 (Nov. 27, 2018), <https://www.fhfa.gov/Media/PublicAffairs/Pages/FHFA-Announces-Maximum-Conforming-Loan-Limits-for-2019.aspx> [<https://perma.cc/A8PZ-LB57>].

59. See *United States Home Prices and Values*, ZILLOW, <https://www.zillow.com/home-values/> [<https://perma.cc/B9NA-R3V8>].

60. Fed. Housing Fin. Agency, *supra* note 57; see 12 U.S.C. § 1717(b)(2) (2018) (providing the FHFA statutory authority for FHFA to determine high cost areas limits).

61. 12 U.S.C. § 4561 (2018). GSEs' "Duty to Serve Underserved Markets" provides another aspect of the GSEs' role in promoting access to credit, but is beyond the scope of this Article. See *id.* § 4565.

62. See, e.g., FED. HOUS. FIN. AGENCY, ANNUAL HOUSING REPORT 2018, at 6 (Oct. 2018), https://www.fhfa.gov/AboutUs/Reports/ReportDocuments/Annual_Housing_Report2018.pdf [<https://perma.cc/XYK7-BV3D>].

63. 12 U.S.C. § 1716 (2018).

budgetary process than PPF by GSEs. Take again the example of DoED student loans (\$1.3 trillion out of direct government PPF of \$3.4 trillion).⁶⁴ The authorizing legislation, the Higher Education Act, defines eligibility requirements and specifies borrowing costs for the various types of student loans.⁶⁵ As long as borrowers meet eligibility criteria, funding for the loans is guaranteed, and no annual appropriations are required.⁶⁶ Congress provides the terms, but it is borrowers who determine how much they borrow. Student loans are also largely absent from deficit figures. The 1990 Federal Credit Reform Act (FCRA) created what Howell Jackson described as “an unusual bit of accrual accounting” in a budgetary system otherwise organized around a cashflow principle, which focuses on outlays and revenues within the fiscal year.⁶⁷ Relaxing the cashflow principle, FCRA acknowledges that government loan disbursements in one budget year will generally be offset by loan repayment in some future year. Therefore, loans are treated as if they had already been repaid, such that no deficit is created in the first place.⁶⁸

The only aspect of lending that does come under the deficit figure is the cost of the loan, but the FCRA defines this term rather narrowly. Under FCRA, “cost” is any difference between amounts disbursed, and amounts repaid (or projected to be repaid), discounted to the net present value by government’s borrowing rate for an equivalent maturity.⁶⁹ This means that where the government makes a twenty-year student loan, priced at the twenty-year Treasury bond rate, and principal and interest are projected to be paid in full, the “cost” of the loan for FCRA purposes is zero. The loan would therefore be deficit neutral. As discussed below, in aggregate, it appears that government credit programs do not FCRA incur costs, because total interest collected more than offsets Treasury borrowing costs and defaults. Even where lending programs do generate costs (and hence, deficits), FCRA provides for automatic appropriation for these costs.⁷⁰

The only way in which student loans resemble familiar spending is their inclusion in the national debt figure. DoED disburses its student loans from Treasury deposits into a program account. The Treasury raises the funding by incurring debt in familiar ways (issuing treasuries and intragovernmental borrowing), which do come under the debt limit. However, even the inclusion of student loans under the national debt limit is, in a sense, accidental: other

64. See *Data Appendix*, *supra* note 1, at pt. II tbl.2 (adding “Student Loans” to “Education” guarantees).

65. William D. Ford Federal Direct Loan Program, 20 U.S.C. § 1087a–j (2012).

66. See 20 U.S.C. § 1087(a) (2012); see also Federal Credit Reform Act of 1990, 2 U.S.C. § 661c(b)–(c) (2012).

67. Jackson, *supra* note 50, at 18.

68. See *id.* at 19 (stating that “the liabilities that these deficits generate are not considered part of the public debt of the United States” and that these “loan liabilities are effectively off-balance sheet liabilities”).

69. 2 U.S.C. §§ 661a(5)(B)–(C), (E) (2018).

70. See *id.* § 661d(a) (2018).

government PPF programs—say, FHA and SBA guaranteed loans (\$1.3 trillion and \$100 billion respectively⁷¹)—obtain their funding not through the Treasury, but through securities guaranteed by Ginnie Mae, a wholly-owned government corporation.⁷² And Ginnie Mae guarantees do not come under the debt limit.⁷³

While FHA and SBA guaranteed loans do not come under the debt ceiling, unlike student loans, the amount of FHA and SBA guarantees *does* require annual appropriations by Congress. The distinction here turns on whether the credit program is classified as an entitlement program. Under FCRA, entitlement programs are excepted from annual appropriations.⁷⁴ Student loans are classified as entitlement programs; FHA and SBA loans are not.

Table 1 summarizes the difference between the budgetary framework for ordinary spending and the legalities of the various PPF programs. As this table demonstrates, there are differences between GSEs and direct government PPF. But they are subtle compared to the more fundamental distinction between ordinary spending and PPF writ large. On this note, this Part closes by reflecting on the stakes of the distinction between GSEs and direct government PPF.

Table 1: Comparing PPF and Ordinary Spending

	Authorization	Annual Appropriation	PAYGO	Deficit Accounting	Debt Limit
Discretionary Spending	✓	✓	x	✓	✓
Mandatory Spending	✓	x	✓	✓	✓
Student Loans	✓	x	x	x	✓
FHA and SBA Loans	✓	✓	x	x	x
GSE Loans	x	x	x	x	x

There is a common perception that government uses the GSE form in order to remove their liabilities from its books. In fact, an influential New York Federal Reserve staff report describes GSEs as the “off-balance sheet shadow banks of the federal government.”⁷⁵ While historically accurate,⁷⁶ this perception does not adequately characterize the current situation, particularly the changes brought by FCRA. FCRA’s treatment of credit programs means that loan amounts, by

71. *Data Appendix, supra* note 1, at pt. II tbl.2.

72. *See* CONG. RESEARCH SERV., *supra* note 20, at 1, 3.

73. For this reason, they are not reported in the Treasury’s Statement of the Public Debt. *See, e.g.*, U.S. DEP’T OF TREASURY, MONTHLY TREASURY STATEMENT: RECEIPTS AND OUTLAYS OF THE UNITED STATES GOVERNMENT FOR FISCAL YEAR 2020 THROUGH JANUARY 31, 2020 (Feb. 2020).

74. 2 U.S.C. § 661c(c) (2018).

75. POZSAR ET AL., FED. RESERVE BANK OF N.Y., SHADOW BANKING 14 n.6 (2012).

76. *See* Sarah Quinn, “*The Miracles of Bookkeeping*”: *How Budget Politics Link Fiscal Policies and Financial Markets*, 123 AM. J. SOC. 48, 73 (2017) (“The Nixon administration later [admitted] . . . that Fannie Mae was effectively a shadow government agency, privatized only to hide the size of the federal budget.”).

and large, are *already* excluded from deficit figures. Furthermore, even if the government chose to formally nationalize the GSEs, it would likely be able to exclude their securities from the national debt limit, like Ginnie Mae securities. Whether or not fresh lending will be subject to annual appropriations will depend on congressional willingness to designate it as an “entitlement program” (like student loans), or not (like FHA and SBA loans). Therefore, at present, the separate existence of GSEs has little to offer in terms of off-balance sheet finance.

This, however, does not mean that the distinction between the GSEs and direct government PPF is meaningless. Far from it. Direct government lending requires Congress to legislate on borrower eligibility, interest rates, and repayment options, to a far greater extent than it does with respect to GSEs. For this reason, direct government PPF is potentially more responsive to democratic input than the GSEs are. Imagine a world where constituents conceived of government lending programs as reflecting social priorities in ways akin to ordinary spending. Constituents would formulate their agendas in terms of what social activities deserve increased access to credit, and Congress would debate these agendas. The crucial point is that the depoliticizing effect of the GSEs is not so much in their off-budget nature (which has to do with the nature of *lending versus spending*, as opposed to *how* government lends). The depoliticizing effect of GSEs is really about the broader ways in which the GSE structure insulates decisions about eligibility, rates, and repayment from politics; in other words, it is about the “authorization” column in Table 1.

IV

THE DIFFERENT LOGICS OF SPENDING AND LENDING

In this Part, I argue that government lending presents a different political logic from government spending. This discussion has two interrelated goals. First, it is meant to show that the insulation government lending enjoys from the annual budgetary process is not entirely arbitrary, but rather reflects a key difference. Whereas funding for government spending typically comes from tax receipts levied on the population as a whole, funding for government lending comes from loan repayment by particular borrowers.⁷⁷

Second, this Part develops an intuition as to the economic circumstances under which government lending becomes a more attractive political option than government spending. The intuition builds on Perry Mehrling’s *The State as Financial Intermediary*, which translates the relationship between the state and its citizens into balance sheet terms.⁷⁸ This Part gradually builds this intuition by considering three different scenarios of government spending.⁷⁹ A model

77. Assuming that credit risk on the loans is not subsidized. See *infra* Part V.

78. See generally Perry Mehrling, *The State as Financial Intermediary*, 34 J. ECON. ISSUES 365, 365–68 (2000).

79. The scenarios discussed in this Part are meant as convenient heuristics. It is well understood that the examples I use for each scenario have features that make real-life classification far more complex,

formalizing key claims in this Part is presented in the Appendix.⁸⁰

The first scenario is one where the government spends on a project, and the project does not produce a cashflow that the government can later tax back, or that results in decreased future spending. Consider a case where, in the aftermath of a large natural disaster, the government offers humanitarian aid to foreign countries, with agencies like U.S. Agency for International Development (USAID) providing \$100 billion in relief on food security, health care, water, and sanitation. The Treasury funds USAID by floating \$100 billion in new treasuries. The relevant question is: what is the source of funds that will ultimately enable Treasury repayment?⁸¹

Here, humanitarian aid, while important and justified, will not likely produce any cashflow the government could later tax back, or that is likely to result in decreased future spending. A well-designed aid program would improve the conditions of recipient communities, but would not provide the cashflow to repay government bonds.⁸² Repayment of the treasuries would require raising an additional \$100 billion in tax revenue, which, for simplicity, I'll assume would take place by raising the income tax rate across-the-board (for simplicity, I am also leaving interest rate costs out of the calculations that follow). Our hypothetical federal government taxes national income of roughly \$20,000 billion (\$20 trillion) at an effective average rate of roughly 20%, producing some \$4,000 billion in tax revenue.⁸³ To raise an additional \$100 billion, the government would have to raise the average effective rate by 0.5% of national income. This raise, of course, could be spread across several years (matching the duration of the bond).

In balance sheet terms, we might think of this as follows. First, the natural disaster causes an equity loss to affected communities. Next, the government takes on part of that equity loss (\$100 billion) by extending emergency relief. Finally, the government issues a kind of call for taxpayers to subscribe new equity to the state, in the amount of 0.5% of national income. Treasury borrowing is ultimately funded through taxpayers, who basically take the equity loss on to themselves.⁸⁴ The key point is that under these circumstances, government should

some of which are discussed in the accompanying footnotes. A model formalizing key claims in this Part is presented in the Appendix.

80. See *Model Appendix*, *supra* note 17.

81. This implicitly assumes national debt will have to be decreased, else its level would become excessive in some way. But the desirable level of the national debt has been subject to considerable controversy within macroeconomics. See generally RANDALL WRAY, MODERN MONEY THEORY: A PRIMER ON MACROECONOMICS FOR SOVEREIGN MONETARY SYSTEMS (2012).

82. In response to this, one might argue that aid has indirect benefits for the donor country's cashflow. For example, by increasing political stability in foreign countries, wars in which the donor country might have otherwise gotten involved are avoided.

83. The "effective tax rate" refers to total taxes paid over total income. I use this term to avoid more complicated calculations based on marginal income tax levels. Figures are also stylized for ease of computation.

84. But that is only if we limit our accounting to strictly pecuniary terms. To the extent that U.S. citizens consider supporting communities in need as a pre-existing obligation (moral, religious, or otherwise), the aid offered merely represents a fulfillment of that obligation. Here, a reduction in assets is accompanied by a reduction in liabilities, rather than equity.

clearly engage in ordinary spending, because the source of cashflow to repay the bonds is generated from general tax revenue, not from aid recipients. I have taken the relatively small example—on budgetary terms—of humanitarian aid. But the much larger domestic social safety net arguably works in similar ways, at least to some extent.⁸⁵

The second scenario is one where the government spends on a project that produces a cashflow that the government can later tax, but this cashflow distributes more or less evenly across taxpayers. Here, the federal government decides to spend \$100 billion on improving transportation, which it again funds by floating treasuries. The new transportation projects significantly cut commuting time, which results in gains in national income of at least \$100 billion. We further assume that gains accrue across taxpayers, such that each taxpayer enjoys equal gains in the first \$100 billion of benefits.⁸⁶ Same question as in the first scenario—what is the source of funds that is ultimately going to allow Treasury repayment?

Like the first scenario, the government would have to raise taxation by \$100 billion, but unlike the previous scenario, taxpayers have actually experienced (at least) \$100 billion in new income from the spending program. With national income now at \$20,100 billion, the existing average effective tax rate (20%) would produce \$4,020 in tax revenue. The remaining \$80 billion can be secured by raising the average effective tax rate by around 0.4% of national income (to 20.4%⁸⁷). Crucially, in stark contrast to the previous scenario, taxpayers facing the higher rates will not experience a net loss. The \$100 billion increase in taxation will be offset by at least \$100 billion in additional income. And because each taxpayer—by assumption—received an equal share of the first \$100 billion in benefits, the position of every individual taxpayer will not have worsened.⁸⁸

In balance sheet terms, we might again think of the initial spending as causing a reduction in equity for the government (transportation grants are spent away, without producing a corresponding “asset” for the government). However, the investment results in an even greater equity gain to taxpayers. Once again, the government calls taxpayers to subscribe fresh capital, but this time, taxpayers do not suffer a net loss given their initial gains. In this second scenario, spending essentially pays for itself. The self-funding nature of the project means there will likely be no pressure from taxpayers to replace ordinary spending with an

85. In response to this, one might argue that the social safety net increases socio-economic stability in ways ultimately beneficial to the government's cashflow (for example, by allowing households to recover from periods of economic difficulty, thus increasing their longer-term income taxes). While the social safety plays this role to an extent, it is also simply meant to alleviate suffering regardless.

86. The more equal the distribution of benefits in any concrete case, the more similar the fact pattern is to the second scenario. Conversely, the less equal the distribution of benefits, the more similar the fact pattern is to the third scenario.

87. This translates to around a two percent increase in individual tax liability.

88. For simplicity, I assume a flat income tax. With a progressive income tax, the calibration of increases in the various tax brackets will be more complex.

alternative model, like lending.⁸⁹ The political pressure emerges when we relax the assumption about each individual taxpayer sharing in the benefits sufficiently to offset the increased tax liability. Now enter the third and final scenario.

In the third scenario, the government spends on a project that produces a cashflow, but this time, the cashflow accrues to a limited subset of taxpayers. Assume that the government is interested in improving the conditions of about half a million low-income households by constructing \$100 billion in high-quality public housing. With increased access to education, transportation, and employment, the government projects that any such investment would raise the income of participating households by at least twice the amount of investment over some long future period, say, two decades (again, I am abstracting from the time value of money for simplicity).⁹⁰ Treasury finances the investment by borrowing. What is the source of funds for ultimately repaying those treasuries?

Total national income will rise by \$200 billion over the relevant time period, so with an average effective tax rate of 20%, the Treasury will collect \$4,040 billion in revenue. This still comes \$60 billion short of repaying the \$100 billion in new bonds. Raising the remaining \$60 billion would require raising the average effective tax rate over the period required to repay the bonds. The key point here is that where the government takes on the project through ordinary spending, the additional \$60 billion in taxation is raised by increasing taxes evenly across the population. However, only a subset of taxpayers will have benefited from the program and experienced the large income (and equity) gain. The remaining households will experience net increased tax liabilities of almost \$60 billion, or 0.3% of national income. While 0.3% of national income might sound small, that is only because the \$100 billion program in our example is relatively small. Keeping in mind that outstanding PPF securities are at around \$10.2 trillion, the total size of transfers involved will in reality be larger by a factor of 100.

To understand the challenge to ordinary spending in the third scenario, it is useful to conceive of the government's power to tax as a kind of equity stake in taxpayers' incomes.⁹¹ The government shares in the benefits of participating households' income gains through its power to tax those incomes. The challenge is that the government's equity stake is too small to cover investment costs. The government spends 100% of the costs, but only recoups 20%—the average effective tax rate—from income gains. Intuitively, this means return on investment will have to be much higher (in this case, \$500 billion on the initial \$100 billion spent) so that the government can recoup its investment cost from the benefiting group.⁹² But what happens when the return, while attractive, fails

89. For example, instead of providing transportation grants, the federal government can provide loans to local government, or to a public-private partnership developing roads.

90. Also for simplicity, I am not considering the persistence of increase in participating households' income-level beyond the two-decade period, and their effects on future Treasury revenue. This is equivalent to an assumption that after two-years, income levels for participating households return to baseline levels.

91. See Mehrling, *supra* note 78.

92. More precisely, return on the project would have to equal investment cost times the inverse of

to meet this very high benchmark? Does society simply let go of the investment opportunity?⁹³

The government can lend rather than spend. Instead of making direct investments in public housing, assume the government provides mortgage loans to the eligible households, which the households can then use to purchase high-opportunity housing. The Treasury funds its mortgage lending by floating new treasuries—so what will fund repayment of these treasuries now? By assumption, participating households' rising incomes will be more than sufficient to repay their mortgages. The Treasury will use loan repayment to repay its own borrowing, such that no increase in taxes is required.

In balance sheet terms, the Treasury's increase of \$100 billion in liabilities is accompanied by a corresponding asset, \$100 billion in mortgage loans.⁹⁴ The gradual repayment of these loans allows repayment of treasuries and a corresponding decrease in liabilities. From the point of view of participating households, there is an equity gain of roughly \$100 billion, which is the difference between appreciation in their incomes, and mortgage repayment. In this variation, participating households are clearly the ones ultimately paying for the investment out of their equity gains.

In fact, as participating households' income increases, their income tax liabilities will increase as well (their net equity gain would therefore be lower than \$100 billion). This increased tax revenue is a boon to non-participating households, who can now enjoy a higher level of public spending (or a decrease in tax rates across the board). This creates a meaningful incentive for non-participating households (and their representatives) to support the lending program.

The takeaway from this third scenario is that if PPF programs had to be funded through the familiar channels of spending and taxation, the income transfers involved would pose considerable political obstacles to approval in the first place. The obstacle is that federal taxation applies more or less uniformly across taxpayers. Progressive income taxation, means, of course, that marginal tax rates vary based on taxpayers' income. But there is still no legal relationship between the level of benefits a taxpayer receives from federal spending, and the marginal rates she pays. In our example, participating households would face the same set of tax brackets as non-participating households, despite the fact that the former enjoyed equity gains whereas the latter did not. In economic terms, uniform tax rates to groups of taxpayers with widely diverging needs for investment in their human capital can result in considerable under-investment.

the average effective tax rate (in the current example, \$100 billion \times (1/0.2)). For formal proof, see the model in the Appendix. See *Model Appendix*, *supra* note 17.

93. This implicitly assumes credit will not be forthcoming from the private sector. See *infra* Part V.

94. Indeed, direct loans made by the government are accounted for as an asset ("loans receivable") in the Treasury's Financial Report of the U.S. Government. U.S. DEP'T OF TREASURY, FINANCIAL REPORT FY18 OF THE U.S. GOVERNMENT 59, 82 (2018), [https://fiscal.treasury.gov/files/reports-statements/financial-report/2018/03282019-FR\(Final\).pdf](https://fiscal.treasury.gov/files/reports-statements/financial-report/2018/03282019-FR(Final).pdf) [<https://perma.cc/DS2F-H9N8>] [hereinafter FINANCIAL REPORT].

PPF is the institutional mechanism for diverting some of the gains that participating groups accrue, to ensure that non-participating groups do not bear any losses and also share in the gains. The trick is allowing participating households to voluntarily increase their burden of taxation, such that non-participating households will not experience an increase in their own tax burden. Instead of calling this a “voluntary tax increase,” we call it “borrowing from the government.” Voluntarily choosing to increase one’s tax burden sounds very strange indeed, except that it can unlock the door to much higher levels of public investment *ex ante*.

The notion of a voluntary tax increase instead of loan repayment is useful for another reason. With loan repayment, borrowers must typically repay in full. But in the case of government lending, full repayment risks overcompensating the government, and indirectly, non-participating households. This is because the government is gaining not only from loan repayment, but also from its tax share in participating households’ rising incomes. This equity stake means that the government can still recover its investment costs even when loan repayment is less than full. A case in point is the income-driven repayment (IDR) option on student loans. IDR allows borrowers to repay by committing a certain percentage of their incomes over a certain number of years.⁹⁵ The political logic of PPF can be maintained even where IDR payments are below full loan repayment. As long as the combination of IDR payments *and* the borrower’s rise in mandatory taxes covers the cost of the loan, other taxpayers are left no worse off.

Before concluding, a caveat is in place about interest rate payments. So far, I assumed government borrowing is costless, meaning that the government can pass on the benefits of interest-free borrowing to eligible households (though some interest might be charged to protect the government against credit risk).⁹⁶ Once interest costs are introduced, those costs would also be deducted from the equity gains of participating households. These interest rate payments are transferred to bondholders, which are almost definitionally higher-income households. This makes the lending arrangement relatively less attractive to borrowers, and more attractive to higher-income households. With some simplification, as long as the rate of return for eligible borrowers is greater than interest cost, government lending would still improve the position of borrowing households, with the level of interest rates changing the distribution of benefits between borrowers and bondholders. Further note that PPF would tend to reduce wealth inequality on the condition that equity gains to borrowers exceed interest paid to bondholders. Over the past years, nominal rates on long-term government borrowing have been quite low (at around 3%), with real costs (given average inflation of 1.5%) even lower. Given that this low interest rate environment will likely persist, opportunities for high return investments are particularly prevalent.

95. See generally John R. Brooks, *Income-Driven Repayment and the Public Financing of Higher Education*, 104 GEO. L.J. 229, 260–61, 260 n.190 (2016).

96. See *supra* discussion of FCRA in Part II, and *infra* Part V.

To summarize this Part, government lending emerges as a serious alternative to government spending when at least three conditions are met: (1) the relevant government project is an investment project that increases productivity; (2) the benefits from the investment project are concentrated such that they offset some taxpayers' increased tax liability, but not others; and (3) the rates of return on social investment are positive, but not so high that even a fraction of those gains (the fraction that the government can tax) covers the initial costs.⁹⁷ Under these circumstances, ordinary spending will redistribute income away from non-participating households in ways that can endanger political support for the project. Lending emerges as the response.

V

WHY PPF ELIGIBILITY MATTERS FOR BORROWERS

The discussion in the previous Part assumed that government promotes upward mobility by lending to households with opportunities for profitable investment. This Part builds on the previous Part to discuss when such opportunities exist, and on the stakes that eligibility to borrow hold for economic equality. It then responds to a potential critique that government lending is redundant given the existence of private credit markets.

In general, government lending can generate upward mobility when the project the borrower is funding has positive carry. "Carry" is the difference between the financial return from pursuing a project—buying a house, going to college, running a small business—and the costs of borrowing to fund that project. A student receives a return on her education in the form of greater earning potential throughout her career, which may then be compared with the cost of student loans. Similarly, a mortgage borrower receives a return on her home in the form of rent avoided, building equity as the mortgage amortizes, and typically, appreciation in the price of her home. When those returns exceed costs, borrowers enjoy positive carry. Further note that even a seemingly small positive carry is amplified through high loan-to-value ratios. Consider a mortgage borrower with a \$200,000 mortgage, and a \$50,000 in home equity (initial house price: \$250,000). An appreciation of only 2% in house price (\$5,000) translates to a 10% return on equity ($=\$5,000/50,000$).

For these reasons, the ability to fund projects with positive carry is important to building household wealth over time. So far, our discussion in this Part focuses on narrow financial returns, but it is easy to see that "returns" can be understood more broadly. Where a family lives, to take a notable example, determines access to education, employment opportunities, and a safe and clean environment.⁹⁸

97. It is possible that returns from college education are so high to meet this criterion. See Philip Trostel, *The Tip of the Iceberg*, 49 CHANGE: THE MAGAZINE OF HIGHER LEARNING 8, 8 (2017).

98. See generally *Understanding Neighborhood Effects of Concentrated Poverty*, HUD USER OFFICE OF POLICY DEV. & RESEARCH (2011) <https://www.huduser.gov/portal/periodicals/em/winter11/highlight2.html> [<https://perma.cc/P9WU-4C5B>].

Positive carry from these benefits is passed on from generation to generation. Because most people cannot afford a home purchase out-of-pocket, their ability to seize opportunities for positive carry depends on access to reasonably priced credit. In this way, decades-long official policies to exclude communities of color from eligibility to borrow were key drivers of segregation and economic inequality, and their effects remain strongly felt today.⁹⁹

The significance of government lending for upward mobility is underappreciated due to the confidence many commenters express in a private lending alternative. According to this view, where profitable investment opportunities truly exist, private lenders will emerge, rendering government lending unnecessary. I do not agree. First, at the broadest level, markets do not exist in the abstract, but are shaped by particular legal and policy choices that affect distributive outcomes. This is particularly true with respect to credit markets, with their deep reliance on state monetary institutions.¹⁰⁰

Further, the evolution of the residential mortgage market illustrates that government lending can be essential to establish broad access to credit. Before the Great Depression, the mortgage market was unrecognizable to a modern observer. It was small and regional; lenders typically required very high down-payments (50%), and loans had short maturities (sometimes only 3–10 years) that exposed borrowers to serious roll-over risk.¹⁰¹ The government's ensuing involvement in housing finance created the modern mortgage—the 30-year self-amortizing, low interest, low down-payment mortgage—and made homeownership available for a new swath of the demographic.¹⁰² That mortgage credit was so constrained prior to government involvement demonstrates that private lenders can over-price and over-restrict lending.

Government lending is appropriate where private lenders are overpricing private borrowers' risk, so the government can charge a lower, and more adequate risk premium. But crucially, government lending can still be appropriate where private lenders' risk premiums are well priced. The reason is that the government has a comparative advantage in raising funding, and it can use this advantage to benefit its own borrowers. Government has the lowest cost of borrowing because (1) Treasury securities are considered riskless, and are highly liquid in ways that drive down their costs, and (2), the government has no equity securities, which require higher returns. In general, financial institutions price their lending based on their cost of funding in debt and equity markets. To price the lending they offer, they use their own cost of funding, adding a risk premium based on the borrower's risk. It follows that even where the government

99. See *supra* note 14 and accompanying text.

100. See, e.g., Christine Desan, *The Key to Value: The Debate over Commensurability in Neoclassical and Credit Approaches to Money*, 83 LAW & CONTEMP. PROBS., no. 2 (forthcoming, 2020); Nadav Orian Peer, *Negotiating the Lender-of-Last-Resort: The 1913 Fed Act as a Debate Over Credit Distribution*, 15 N.Y.U. J.L. & BUS. 367 (2019).

101. See Levitin & Wachter, *supra* note 13, at 1125–26.

102. *Id.* at 1147–48.

and private lenders use an identical risk premium, differences in the cost of funding can enable the government to offer lower lending rates to borrowers.

The government's ability to reduce borrowing costs matters for households. As the discussion above suggests, the lower the cost of borrowing, the greater the opportunities for positive carry. And conversely, positive carry will be eliminated where borrowing costs approach, or exceed, expected returns. PPF programs support positive carry by keeping borrowing costs low for eligible borrowers. Ideally, we would be able to quantify the government's contribution to positive carry, but such quantification raises challenges beyond the scope of this Article. Instead, I provide some back-of-the-envelope calculations to suggest the relatively low cost of PPF credit. Figure 1 in Part IV of the Data Appendix compares the interest costs of 30-year mortgages with 20-year treasuries over the past decade.¹⁰³ The difference (or spread) between the two has averaged only 117 basis points (bps)—slightly more than one percent—during that period.¹⁰⁴ This is significant because treasuries reflect the lowest cost of borrowing in the economy. For reference, over the 2010's, bonds issued by Aaa rated corporations—the highest rating available—had nearly the same average costs of borrowing as 30-year mortgages (110 bps).¹⁰⁵

Over that period, the mortgage-Treasury spread gradually increased to its present level of 161 bps, due in part to increase in GSE guarantee fees.¹⁰⁶ But even after these increases, mortgage borrowing costs remain surprisingly low: lower than borrowing costs for Baa corporates (182 bps).¹⁰⁷ To underscore the point, a Baa credit rating is considered “investment grade” and was about the median for S&P 500 companies in a 2015 study.¹⁰⁸ Baa corporates include AT&T and General Electric.¹⁰⁹ As far as back-of-the-envelope calculations go, if you've got a mortgage, PPF means your borrowing cost is likely lower than theirs.

The picture looks similar when we turn to student loans. Since 2013, interest rates for the major student loan programs are calculated based on the prevailing 10-year treasury rate, plus a 2.05% statutorily determined add-on.¹¹⁰ By comparison, I estimate the average equivalent maturity Corporate Baa/Treasury spread for that period at about 2%.¹¹¹ If you, or your progeny, have student loans, PPF means borrowing rates on those loans are roughly the same as AT&T's.¹¹²

103. I used 20-year treasuries to reflect the fact that, given the prepayment option and amortization, the weighted average life of mortgages is shorter than 30 years.

104. *Data Appendix, supra* note 1, at pt. IV tbl.1.

105. *Id.*

106. Guarantee fees were raised from 25 to 56 bps as a result of 2008 legal reforms. 12 U.S.C. § 4547(b)(1)(A) (2018); *Data Appendix, supra* note 1, at pt. IV tbl.1.

107. *Data Appendix, supra* note 1, at pt. IV tbl.1.

108. STANDARD & POOR'S RATING SERVICES, S&P 500 CREDIT PROFILE—DOWNGRADES INCREASE IN 2015, WITH INCREASING M&A ACTIVITY AND HIGHER LEVERAGE 6 ch. 4 (2015).

109. MOODY'S, AT&T RATINGS, <https://www.moody.com/credit-ratings/ATT-Inc-credit-rating-702550> (listing credit rating as Baa2); MOODY'S, GENERAL ELECTRIC RATINGS, <https://www.moody.com/credit-ratings/General-Electric-Company-credit-rating-313000> (listing credit rating as Baa1).

110. 20 U.S.C. § 1087e(b)(8) (2018).

111. *Data Appendix, supra* note 1, at pt. IV tbl.1.

112. *Id.* The assumptions used to generate this figure are also outlined. *See id.*

Faced with these low rates for eligible borrowers, some might argue that government is underestimating borrowers' risk of default, thereby subsidizing their borrowing. If borrowers indeed presented such low levels of risk, the argument goes, private lenders too would advance credit at those rates. Their unwillingness to do so is evidence that the government is taking uncompensated financial risk. In my view, this argument, while intuitive, ignores a more complex picture. As discussed above, (1) private lenders can over-price risk, and (2) even where private lenders and the government charge identical risk premiums, the government's funding advantage naturally enables it to offer lower rates.

There are additional reasons to doubt that government lending involves large credit risk subsidies. With respect to PPF programs within the government, the FCRA requires the government to forecast borrowers' risk of default, and account for it separately as a subsidy cost.¹¹³ Government financial reports show that, taken as a whole, credit programs actually present a surplus under the FCRA approach, meaning that loan revenues offset cost of borrowing and defaults (actual and projected).¹¹⁴ So while some credit programs are indeed underpriced, underpriced amounts are more than offset by other programs generating surpluses.¹¹⁵ These figures require further study, given recent comments by the Government Accountability Office.¹¹⁶

Then there are the GSEs. One might argue that the failure of Fannie Mae and Freddie Mac, and their entry into Treasury conservatorship in 2008, is evidence that PPF programs underprice borrowers' credit risk in ways ultimately borne by taxpayers. Once again, the picture is more nuanced. It is recognized today that GSE governance before the conservatorship was riddled with moral hazard.¹¹⁷ The GSEs generated considerable earnings, but those earnings were not retained: instead, they were distributed as dividends and executive compensation, a practice enabled by an inadequate regulatory regime.¹¹⁸ It follows that the GSEs' failure in-itself offers no proof that GSE credit was underpriced. The question is rather how the GSEs would have fared had earnings during the prosperous years been adequately retained as loss reserves. This question requires further empirical study.

Regardless, since their entry into conservatorship, GSE guarantee fees have been raised considerably, and the GSEs themselves have returned to profitability.¹¹⁹ Increased fees notwithstanding, mortgage borrowing costs remain

113. See Jackson, *supra* note 50, at 18.

114. Unlike FCRA accounting, the CBO uses a fair-value approach to calculate the cost of credit programs. Under this approach, credit programs resulted in a cost of \$36.5 billion. CBO, *supra* note 8, at 1. A critique of the fair value approach is beyond the scope of this Article.

115. See generally FINANCIAL REPORT, *supra* note 92, at 82–83 (stating that “Subsidy Expense (Income) for the Fiscal Year” for loans receivable was a subsidy of \$8.3 billion, and that the same metric for loan guarantee liabilities was \$14.3 billion, which, taken together, represents \$6 billion in income).

116. See FINANCIAL REPORT, *supra* note 94, at 253.

117. See FIN. CRISIS INQUIRY COMM'N, FINANCIAL CRISIS INQUIRY REPORT ch. 17 (2011).

118. CONG. RESEARCH SERV., *supra* note 20, at 7.

119. *Id.* at 10.

low. That the GSEs' current financial management appears responsible, and that mortgage borrowing rates remain low, calls into question the notion that low rates on PPF credit are only possible due to underpricing of risk.

In sum, government lending provides upward mobility by lending at rates consistent with positive carry. Lack of eligibility to lending programs can unjustly deprive ineligible households of these opportunities. While subsidization of borrower's credit risk may or may not be involved in a given lending program, PPF remains a powerful tool to support positive carry even absent such subsidies.

VI

CONCLUSION

Over the past century, PPF has become a pillar of the U.S. political economy. Although it is an institution vast in size and influence, it receives little attention. PPF's subtlety—operating outside the familiar modes of either public or private finance—allowed it to evolve with a surprising degree of independence from political debate. To be sure, the GSEs' failure during the 2007–09 Financial Crisis spurred public outrage around their misconduct and ensuing bailout by U.S. taxpayers.¹²⁰ The sense of outrage, while justifiable, still falls short of engaging in the most pressing question that GSEs actually present: What is the “public purpose” in PPF? Who are the borrowers, and what are the activities, that the public would like to empower through this dramatic expansion in access to credit? Our failure to address this question head-on as a society leaves us with the existing distribution of the government's \$10 trillion lending portfolio.

To many, the government's existing portfolio may cause deep ambivalence. It fosters a U.S. middle-class, while at the same time excludes whole segments of minority and low-income households from ever joining that middle-class. It finances homes and provide basic needs to their inhabitants, while at the same time degrades the environment with unsustainable suburbanization and agricultural practices. Ironically, the off-budget treatment of PPF, which is the source of its Promethean strength, is also what removes it from day-to-day politics. The trick, I believe, is to keep the off-budget treatment—which is largely justified—and develop alternative modes of political participation. Congress needs to get more involved in the distribution of PPF credit. Not because PPF creates deficits like ordinary spending (it does not), but simply because it is a crucial area that determines society's economic agenda. What to do about economic inequality? And racial injustice? And climate change? If you are invested in these questions, you too have a large stake in the government's \$10 trillion lending portfolio.

120. For GSEs' misconduct, see generally FIN. CRISIS INQUIRY COMM'N, *supra* note 115, at 309–23.