An Evaluation of the Fed-Treasury Credit Programs

UT McCombs PhD Student Symposium

Jeremy Stein
Harvard University and NBER

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Classic Lender-of-Last Resort Logic

- Bagehot’s rule: lend freely to solvent firms, against good collateral, at a penalty rate.
  - I.e., lend to firms that are illiquid but fundamentally solvent.
- Underlying theory of the case: stopping bank runs
  - Lending by central bank eliminates the bad run equilibrium. In good no-run equilibrium, everybody is solvent, can pay back their loans.
- In hindsight (and with a good bit of luck) this LOLR approach is a decent superficial characterization of 2008-09.
  - TARP funds were almost entirely repaid, Fed didn’t lose a nickel.
  - Looks ex post to have been in significant part a liquidity crisis.
  - Not to downplay importance of solvency-driven interventions, e.g. stress tests.

This Is Not 2008-09!

- Magnitude of the fundamental shock is much larger: this is not primarily a liquidity event for most firms.

- Uncertainty about firm solvency is first order:
  - We do not know how long the public health emergency will last.
  - We do not know what the post-COVID world will look like (e.g., how much business travel there will be 3 years from now).

- And economic interpretation of “solvency” is less clear-cut
  - Normally, near-zero revenues for 12 months and inability to service debt are strong signals that a business is not economically viable.
  - Less obviously the case here.
  - Is a dental practice that has minimal revenues over the next year non-viable? What should become of the assets?

High-Level Policy Goals: Micro and Macro

- Micro-efficiency: prevent destruction of socially valuable business capital: both physical and organizational.
  - Goal is *not* to shield debt/equity investors from losses
  - But technology for allocating losses—the bankruptcy system—is imperfect and risks excessive destruction of productive capital
  - And bankruptcy system becomes less efficient when capacity is strained (Iverson, 2018)
  - Even if many firms need to ultimately be restructured, benefits to “flattening the curve”

- Macro: contain amplification mechanisms
  - Financial accelerators: firm, household and bank balance sheets
  - Fire sales in credit markets: implications for credit spreads on new loans
  - Aggregate demand externalities and Keynesian multipliers
  - Congestion externalities in bankruptcies courts

Core Design Principles

- Preserve optionality: “Venture Capitalist of Last Resort”
    - In environment of high uncertainty, control government’s exposure not with ex ante credit standards, but with staged-financing approach
    - Provide enough aid for firms to stay alive for a few months, then reassess as more is learned.
    - <u>Must be willing to lose money:</u> there are few dead-safe loans to be made. Need to pay to preserve option value.

- Make aid widely available
    - Do not impose excessively stringent ex ante credit standards
    - Bagehot “solvency and good collateral” criteria not appropriate here

- Provide aid with less senior claims (i.e., more like preferred plus warrants than senior debt)
    - Preserves firm balance sheets and reduces future cashflow problems
    - Mitigate debt overhang that would otherwise slow recovery

Existing Programs: Public Firm Coverage

Program Eligibility	**N**	**Employment**	**Sales**	**EBITDA**
% of Total				
Included: PMCCF	12.0%	57.9%	65.4%	69.6%
Included: Main Street	33.0%	15.8%	15.3%	16.2%
Included: SBA PPP	24.5%	0.3%	1.0%	0.9%
Excluded: Large, high-yield (or unrated)	4.7%	19.2%	13.0%	10.7%
Excluded: Mid-sized, levered, high-yield	25.8%	6.7%	5.2%	2.6%
Excluded: Investment grade with no debt	0.0%	0.1%	0.0%	0.0%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**

- Existing programs miss 26% of employment at public firms
  - 19% of sales and 14% of profits
- Significant employment at
  - Large, high-yield firms (too big to qualify for Main Street)
  - Mid-sized, high-yield (too levered to qualify for Main Street)

Why the Gaps?

- Overall program design suggests aversion to taking credit risk
  - Bagehot dictum at work?

- No junk-rated firms allowed in Primary Market Corporate Credit Facility (PMCCF)
  - Leaves a large chunk of public-company employment uncovered.
  - Suggested tweak: admit BB and B-rated firms. But take warrants to improve government's expected return, align incentives.
  - Also: caps on exec comp, shareholder distributions to better screen.
  - And more tightly control *quantity* that they can initially borrow.

- Leverage limits in Main Street programs.

Main Street Programs in More Detail

Main Street Lending Program Loan Options	New Loans	Priority Loans	Expanded Loans
Term	5 years *(previously 4 years)*		
Minimum Loan Size	$250,000 *(previously $500,000)*		$10M
Maximum Loan Size	The lesser of $35M, or an amount that, when added to outstanding and undrawn available debt, does not exceed 4.0x adjusted EBITDA *(previously $25M)*	The lesser of $50M, or an amount that, when added to outstanding or undrawn available debt, does not exceed 6.0x adjusted EBITDA *(previously $25M)*	The lesser of $300M, or an amount that, when added to outstanding or undrawn available debt, does not exceed 6.0x adjusted EBITDA *(previously $200M)*
Risk Retention	5%	5% *(previously 15%)*	5%
Principal Repayment	Principal deferred for two years, years 3-5: 15%, 15%, 70% *(previously principal deferred for one year and 33.33% repayment due in years 2-4)*	Principal deferred for two years, years 3-5: 15%, 15%, 70% *(previously principal deferred for one year and 15%, 15%, 70% repayment due in years 2, 3, and 4, respectively)*	
Interest Payments	Deferred for one year		
Rate	LIBOR + 3%		

Main Street Design Concerns

- Bank risk retention: designed to ensure government is making loans on "commercial" terms—seen as positive-NPV by banks.
  - Given all the externalities at play, this is not the right social criterion.
  - Banks more likely to participate when new loan bails out an existing troubled position—allocative distortion.
  - And probably won't participate otherwise, even if loan is socially positive-NPV

- Aggressive repayment schedules
  - Likely to create cashflow problems for firms that borrow.
  - This was recently modified—a helpful improvement

- Tight credit standards
  - Debt/EBITDA < 4.0x in new loan program.

Hardness of Debt Claims a Particular Worry

- Combination of fast repayment plus senior claims likely to put many Main Street borrowers in distress when economy is still fragile.

- Who will manage the workouts? Does Treasury delegate to a third party?
  - Given participation of banks, workouts may have to be on private-market terms; if so, reduced scope for socially-desirable re-contracting ex post.
  - Senior bank lenders may be relatively liquidation-prone.

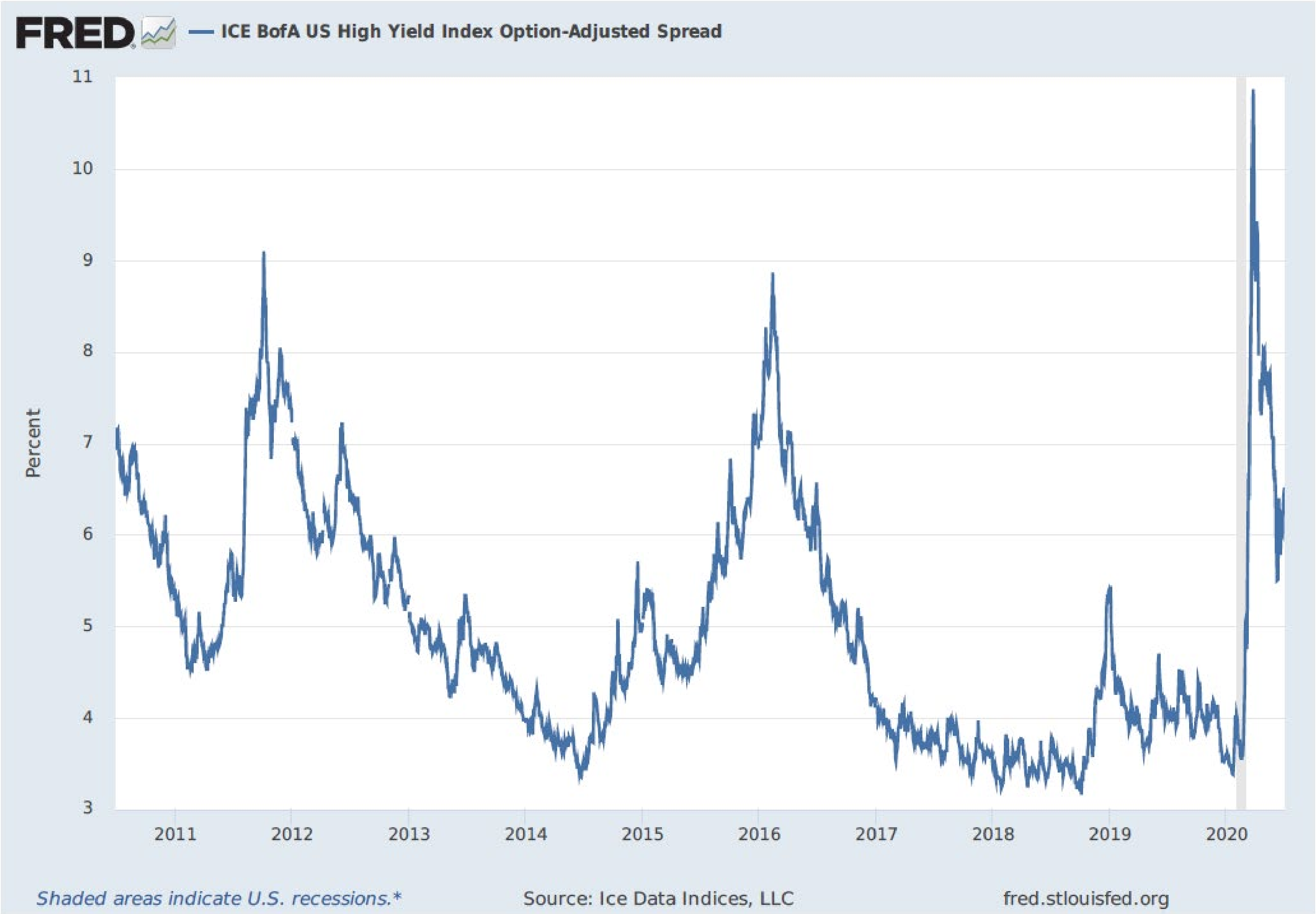
- A better option: finance with preferred claims
  - Interest payments can be deferred without forcing default.
  - More junior status lessens debt overhang, makes it easier to attract future rounds of financing.
  - Can add warrants to strengthen government's overall position, align incentives.
  - Again, venture-capital analogy is helpful: what is the right way to provide finance to firms in an environment of high uncertainty?

Credit Markets Were on the Edge of Unraveling

- Incipient disarray in credit markets in March was calmed by introduction of Fed facilities: PMCCF and SMCCF.

- Without Fed ever really having to buy anything: central bank “magic”.

- But what happens when downgrades and defaults start piling up?



Fed Credit Facilities and the Stock Market

- Introduction of Fed facilities also seems to have kicked off stock market rally.

- Just what is the nature of the Fed put the market is inferring?

- Dominant question for policy now: what is Fed prepared to do if things go south again and they are called on to make good on implied promise to the market? What exactly are they willing to buy?