To: DRAFT (1.4)
From: Tom Sgouros
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Re: Getting past COVID-19, what could you do?

Some thoughts about how to facilitate economic recovery from the catastrophe of COVID-19.

What is the problem that needs solving? The main questions before us, of course, are what do we do about the virus and how on earth do we reopen our world without a vaccine or a cure? And there do not even appear to be plans in the works for establishing an adequate regime of testing and tracing, so who knows how reopening can work at all. But after those trivial matters, there are some substantial economic policy questions this country is going to face soon.

For one thing there is going to be a revenue crunch at the state and municipal level. Sales and income tax receipts have already plunged and will plunge further. Property taxes are less cyclical, but aid from state and county governments who provide that aid from sales and income tax revenue will also plunge, as will collection rates, leaving municipalities that rely on real estate taxes in tough shape too. Given that, some important questions are these:

1. How can states, counties, and cities weather the crisis without going bankrupt?
2. As we saw in the aftermath of the 2008-09 recession, a state cutting back on everything, will be less than no help to a recovery.[1] In the face of the coming revenue crunch, how do we extend the capacity of state and local governments as far as possible? Legal restrictions and cultural biases make real deficit spending unlikely at the state and local level, but is there a way they could do something like it?
3. Finally, this will end eventually and we will need to pick up the pieces. Large sectors of the economy are in a world of hurt and will remain so without attention.

This last point is especially important, because there is every reason to expect the resulting recession is going to be long and deep. At the individual level, one spends if one is confident of the

[1] https://medium.com/@skanda_97974/the-fed-can-and-should-support-state-government-efforts-to-respond-to-covid-19-right-now-5e5ecf7b7ed8

future and one saves otherwise. Barring development of a miracle cure or instant vaccine, the exit from lockdown is going to be uncertain and weak on the demand side, and the supply side isn't going to be great either, with the landscape littered with closed and weakened businesses. The only reason even to expect a V-shape blip of a recession is if there are no fundamental changes during the lockdown phase. But lots of people and businesses have fixed costs that do not go away, and it is unreasonable to expect that no lasting change will occur for millions of people (and governments) during the weeks of shutdown where the pressure of the fixed costs grows while income disappears. Public policy has been focused on the question of stimulating demand, as if this recession was like the last. But it's not, and a reasonable policy response must take that into account.

If you crave such a thing, a more academic statement of pretty much the same thing can be found in an article, "Macroeconomic Implications of COVID-19: Can Negative Supply Shocks Cause Demand Shortages?" by economists Veronica Guerrieri, Guido Lorenzoni, Ludwig Straub, and Iván Werning.[2] The point is that stimulating demand by building things (the usual Keynesian approach to stimulus) isn't really the right approach to this crisis. What needs to happen here is much simpler: getting money into the hands of people who need it to weather the crisis. The authors there also point out that part of what they expect to be broken by the shutdown is the usual "multiplier" that makes a dollar of aid turn into more than a dollar of benefit. The problem is that in a domain of decreased demand, people are not spending much, so the benefit is substantially reduced. Their policy suggestions revolve around trying to keep fundamental things from changing during the shutdown: income supports for people and businesses to enable them to hang on, for example.

Policy goals With all that in mind, the goals of good economic policy after the shutdown must include these:

1. Prevent or minimize a contraction of state and local government spending;
2. Maximize whatever help comes from the federal government because it is likely to be late and skimpy;
3. Help local businesses—the ones most likely to have been hurt by the hiatus—to pick up the pieces; and
4. Jump start spending by consumers who will be understandably wary of spending after the economic dislocation they've experienced.

This must be done knowing that the federal government is a very uncertain partner, if they can be considered a partner at all.

Avoid contraction There are a variety of institutional barriers to goal 1: resistance from state and local government budget officers who are not accustomed to think in terms of stimulus, resistance from underwriters who want to manage their coterie of bond-buyers, resistance from bond-rating agencies who tend to be concerned about the volume of debt over the cost of repaying it. This is

[2] https://economics.mit.edu/files/19351

in addition to the odd statutory and constitutional prohibitions against deficit spending.[3]

There is also the bond market itself: a clubby and inefficient set of ad-hoc arrangements among underwriters and their bond-buyers. The bond market is not organized to the advantage of bond sellers, but for the underwriters and their large buyers. Perhaps for corporate finance that's as it should be. But for public borrowers, the inefficiencies of this market result in yields much higher than are warranted by the actual risk.[4]

A much more liquid market for municipal bonds would be a boon to state and local governments across the country, lowering yields substantially. The Fed has entered that market in a significant way; it should stay there, and help to make that market and guarantees a purchaser for sellers. But this is a permanent need, not a temporary one; will the Fed stay? Having such an institution available would be play a vital role in making that market more liquid.

Suggest: Create and fund public institutions to act as buyers for municipal bonds. Having adjunct institutions to make the market more liquid will help, in both the near and long term. However funding such institutions will be a challenge in an environment where revenues are rapidly diminishing.

- **Leverage** Creating leverage to address goal 2 requires both financial capital to lever with and correspondents to do the levering. A bank leverages its capital with both deposits *and* loan customers. Both are essential. This is undoubtedly part of the rationale for dispensing the current round of federal stimulus through banks and SBA lenders. A bank has contact with many borrowers, even if the stimulus must reach many more than the usual suspects to be effective.

There is another effect from having a large number of correspondents. The reason the Fed can anticipate a multiplier in its relief is that lots of the borrowers of its funds will leave the funds at the Fed. If the Fed credits Bank of America's account there and BoA loans to some borrower who writes a check on it that gets deposited at Wells Fargo, when that check gets settled, some or all of the money might just remain at the Fed. So they can afford the risk of loaning out more money than others would, beause not all of it leaves. (Having control of the currency doesn't hurt, either, but that's a backstop to the leverage due to the lending practice, not the source of it.)

By contrast, if you have some local public agency merely receiving funds from the Fed and lending them out, the benefit is minimal. The Fed loans to some agency, and a loan to Tom is made and Tom withdraws the money and that's pretty much that. So one question is how do you encourage the wide usage of accounts at this entity. As has been so often pointed out, taxes are universal, and that suggests that doing something around taxes would be the easiest way to get the universality and volume necessary to make stimulus work well.

[3] Many of which are typically honored in the breach, since bonds are generally an easy way around them, but they cannot be ignored.

[4] This clubbiness is part of how the bond-rating agencies can continue to overrate the risk of default from local governments. In 2008, the state of Connecticut sued the three big bond-ratings over that. The discovery documents were quite revealing and contained blunt admissions by the ratings agencies that the actual risks of investing in municipal debt were much lower than the ratings implied. The case eventually settled presumably with some benefit to Connecticut, but with no lasting effect on the market, and with both sides forbidden from revealing much about the settlement. The original complaints are no longer available on the Connecticut web site, but the wayback machine provides copies: https://web.archive.org/web/20120122172515/http://www.ct.gov/ag/cwp/view.asp?a=2795&q=420390.

Suggest: An effective agent for circulating stimulus will have both a store of finance capital and a relationship with a large number of potential aid recipients. A state or county has a tax relationship with a large number of people and businesses, though it is unusual for a government to have readily available capital to deploy in this way.

- **Repair** The local businesses of our nation have received a tremendous hit by being forced to shut down for weeks. They are not only losing revenue. In many cases, they are watching their market share erode even further to online sales while they are in enforced idleness. And yet, these businesses make up a tremendous share of the nation's employment. Any restoration policy must account for this component of the supply side of the economy. Goal 3 requires that we cannot merely stimulate demand. If all the demand is satisfied at Walmart and Amazon, overall employment will never return to February's levels.

  Banks are often thought of as the route by which a government can get money to private businesses, but this is largely not true. Over the past 40 years, banks have largely given up on lending to the small business market, which is partly why there are so many government lending programs for small businesses. These days, most bank small business lending is through some government program or another and is only made possible by some full or partial guarantee. To a large extent, banks are no longer intermediaries between depositors and lenders, and function more as brokers of money.[5] Many small businesses do not have useful relationships with any local bank, where they have one at all.

  Suggest: Local currencies have been successfully used to address economic upheavals in the past by encouraging economic activity within a small region.

- **Priming the pump** Though they seem to have neglected some obvious supply-side problems, the stimulus architects in Washington understand that there is going to be a huge weakening of consumer demand in the aftermath of the lockdown. Getting spending power into the hands of people who will spend it is goal 4, and will be vital to getting the economic engine back on track.

  Suggest: Giving money to people who will spend it.

  As a not-so-unimportant aside, one of the major difficulties in adding stimulus of any kind to an economy is actually the logistics of getting money to people. Writing checks to millions of people is actually a difficult and expensive problem to solve. Banks are unreliable intermediaries, partly because many of them have chosen not to be intermediaries at all, and partly because they cannot be trusted to put the health of the economy or their customers over their profits. We have seen this only last week, as reports arrived of banks garnishing the $1200 stimulus payments made by the Federal government.

  Suggest: Long-term, creating a widely-used public payment network would make distribution of aid much easier.

[5] For more about this aspect of the banking market, see https://economicquestions.org/middlemen/.

Putting it together These elements of good policy might be combined in a variety of ways. One that seems to combine the elements efficiently might work by establishing a non-profit entity to be a public investment bank. For convenience, we will refer to the entity as a "county bank," though it might be operated by a state, a county, a city, or an alliance of multiple governments. It would not strictly be a bank, though it might be compared to an investment bank. This county bank would be empowered to buy and hold municipal securities, and to maintain a ledger of tradable tax credits issued by the sponsoring government.

The government can issue credits against taxes payable next year. These might be used as scrip to pay vendors or employees, or might be available for purchase directly, at a modest discount. Presumably they would have some intrinsic value by being slighly discounted.[6]

The government selling the credits would give the resulting cash to the county bank, to purchase municipal securities to hold against the outstanding credits. The county bank would be able to provide liquidity to the market for the credits, offering owners of the credits a place to redeem them before they come due if necessary. The fund would also provide another buyer for municipal securities, per goal 1.

With (or possibly even without) a slight discount, these tax credits would be of value to any business or person with a tax liability to the sponsoring government, so presumably the holders of the credits could "spend" them in a wide variety of ways. The credits would be of limited value to businesses outside that jurisdiction, helping achieve goal 3. Transactions could be conducted via a phone app, as with Venmo or Square cash, or with something like an EBT card, which many states have experience administering (see discussion of logistics below).

When (or if) there is another round of federal stimulus, it could be routed into this county bank, and the bank could use it to instantly fill the tax credit accounts of its customers. The actual cash would be used to buy more short-term securities, for the liquidity needs of the tax credit market and thus do double duty in bolstering the finances of municipalities and stimulating purchases. (Or at least preventing evictions.) This would provide a modest amount of leverage for the aid, fulfilling goal 2 by helping both citizens and municipal governments with potential cash flow problems.

Obviously not all citizens would have accounts, but the more who did, the easier it would be to get cash where it is needed as quickly as possible. The existence of the discount would offer a certain demand stimulus, essentially a small tax cut for the credit holders, or a price cut on goods and services they might purchase, addressing goal 4. This would suggest trying to circulate them widely, not just to people and businesses with the wherewithal to puchase credits ahead of time. Methods to circulate credits might include through payroll or EBT cards. Note that even poor people, who would not be expected to owe much tax, will likely pay rent or receive the EITC (many states have one for state income taxes), so the credits would potentially be of use to them so long as the liquidity provisions create a price floor.[7]

[6] They might have more value to large taxpayers if their establishment was accompanied by a tax increase on wealthy taxpayers to take effect in the following tax year. The existence of the credits might perhaps make the prospect of a future tax hike more politically palatable, both to legislators and to their wealthy constituents.

[7] This is only a meager form of stimulus, but economic stimulus is an arena in which states do not tend to play a large role, so I would be skeptical you could persuade them to do much more.

One might question at what level to organize these banks. My suggestion would be to organize them at a level at which "local" is a meaningful term. It would seem odd to think of local stimulus for an entity the size of California or Texas. In those states, a local approach might be at the county level, while in smaller states, perhaps a statewide approach would make sense, though even there local conditions and customs might suggest otherwise. Certainly Massachusetts is not a large state, but its western and eastern regions have significant differences in identity and attitude. Nothing would preclude state policy makers from organizing a network of such entities on behalf of the regions of their states. This was, after all, precisely what was done in organizing both the Federal Reserve Bank and the Federal Home Loan Bank, both of which have 12 branches to serve different regions of the country.

Some history Some of this is old news. For example, in a variety of contexts, tradable tax credits are already widely used around the country. Affordable housing developers, for example, use credits issued by the federal government, and also by many states, to subsidize construction. Their tradable nature means that developers can liquidate credits even without an offsetting tax liability. In addition to housing construction, tradable state tax credits in various states exist for historic preservation, film production, job development, worker training, brownfield remediation, renewable energy, and even brewery investment (in New York).

A system of tradable tax credits as described here could be compared to another currency, though one intended to complement the national currency, not supplant it. There are a number of such currencies in use around the world, as well as several examples of tradable credits in the United States that are quite similar in nature.

Alternative currencies, meant not to supplant the national currency, but to address a specific local issue, have a fairly long history.[8] During the Great Depression, over a hundred different cities and counties across the United States issued some kind of tax anticipation municipal scrip, to pay workers and get past revenue shortfalls. Detroit's version was widely considered a model, and the scrip was honored by the big department stores in the city as well as many smaller businesses that followed their lead. An important component to the success of the Detroit credits was the establishing of million-dollar fund, capitalized by the leading industrial companies in the city, to provide liquidity by redeeming the scrip to those who needed it, just as the county banks envisioned here would.[9]

In Switzerland, a system called the WIR Franc was developed in 1934 to ease the crippling credit shortage of the time. Backed by the assets of the businesses that participate in it, it became an important part of the Swiss economy. The system continues to this day, and is run by the independent WIR Bank, which manages the ledger and liquidity and offers bank accounts and transaction services exclusively in WIR Francs. Today, over $2 billion in transactions takes place each year in the currency, among 60,000 Swiss businesses. Interestingly, the volume of transactions tends to be counter-cyclical, creating a certain amount of economic stability across swings in the business

[8] I'm told there are accounts of post-Black Death duchies minting special coins to be used only within their boundaries.

[9] For a capsule history, including details of Detroit, see "Tax Anticipation Scrip as a Form of Local Currency in the USA during the 1930s," Loren Gatch, International Journal of Community Currency Research 16 D (2012), 20–33. A preprint is available online at http://sdocument.ish-lyon.cnrs.fr/cc-conf/conferences.ish-lyon.cnrs.fr/index.php/cc-conf/2011/paper/viewFile/58/50.pdf

cycle. The RES Bank, a similar effort in Belgium, was founded in 1996, where there are approximately 5,000 participating small and medium size businesses doing about 40 million euros worth of business each year.

In several states of Brazil, a Dutch research and development NGO called Social Trade Organization (STRO) helped establish a Commercial Credit Circuit (C3), a form of currency backed by outstanding purchase orders from the big customers of small business. Again, the currency arose out of the demand for credit in a market starved of liquidity, in this case by the sluggish payment systems of those big players, such as the Brazilian government. Today the C3 market in Brazil is several million dollars per year. The system has spread to Uruguay, which has put the national government behind this alternative currency. These currencies, like the WIR Franc and RES, are all electronic, with payment cards for consumers and bank accounts like any other. Similar smaller networks exist today in El Salvador, Honduras, and Japan among others.

One need not reach into the distant past or overseas for other examples. Tradable renewable energy credits (RECs) were introduced to the US years ago to enhance the value of renewable energy installations. These are widely traded now, and there are entities serving as brokers to make that market. The pollution credits used to address acid rain played a similar, though much more limited, role, and several states around the country use transferable development rights to influence land development decisions.

REC trading, and other tradable tax credits, have been hampered by the lack of a market player whose role is to maintain liquidity, and some of these markets have seen significant swings in value as a result. With the existence of county banks in the mix and with the acceptance of the credits by the taxing authority, the credits can remain liquid, with a relatively stable value.

These currencies—WIR francs, municipal scrip, tradable RECs, and the rest—were created to address real economic issues, and were adapted to the specific problems they were designed to address. Alternate currencies are often derided as the province of dreamers, but these currencies were practical solutions to real problems, and most remain so. US states and municipalities face a very different set of problems from pre-war Switzerland or Detroit, or 21st century Brazil, but it is possible that a similar solution could address them equally well.

- **How easily could this be done?** This is a proposal to address a currently ongoing crisis. In any crisis, it's easy to think of things that should have been done years ago in order to be prepared. Addressing the liquidity issues in the bond market is certainly in that category. But in a crisis it is important to consider what parts of any proposal could actually be accomplished in a time frame appropriate for an emergency response.

  - **Legal concerns** The legal authority for states and localities to issue tradable tax credits is a matter of long standing. This has been tested multiple times in the context of historic preservation and affordable housing credits, but has also been tested in the context of municipal scrip during the Depression.

    The legality of municipal scrip during the 1930s was not unquestioned, and multiple court cases resulted. They were successfully defended, though ultimately some constitutional questions were not resolved specific to their potential use at the state level. It is worth noting that these efforts were not actively opposed by the federal government at the time, though it did not do much to help, either.[10]

The nation's most high profile recent experience with scrip was in California during 2009, when the state's "registered warrants," interest-bearing IOUs, became a vehicle for getting past a budget deadlock between governor and legislature. Planned in haste, the system was not designed for any other benefit than muddling through, and consequently accomplished nothing more. The warrants were interest-bearing paper, with a face value indicating their original value. They were redeemable by mail to the state controller's office, though many banks also redeemed them.[11]

The SEC became involved because the registered warrants carried explicit interest and terms, and were thus deemed to be too much like municipal bonds. They implied in an unofficial statement that buyers and sellers were equivalent to bond dealers and should be registered.[12] It is not perfectly clear that this would have made much difference to a transaction for, say, groceries conducted in scrip, though it cast a shadow on the enterprise at the time. Ultimately, the SEC did not act, and it seems likely that a newer proposal could be designed to avoid similar treatment under SEC regulations.

– **Logistics** The prospects of setting up a payment system from scratch seems daunting. Here are some points to consider that might make such a project seem less monumental.

- Though it is natural to compare the two, a central ledger to keep track of tax credit balances held by citizens and businesses at a single government (or even a small collection of governments) is a far simpler problem than creating a payment system for dollars that must accommodate a host of legacy payment systems and disparate banking software. There are important logistics questions to be solved relating to concurrency and security, but the overall system would be straightforward.
- There are existing payment systems that could be adapted. In many states, EBT cards can carry multiple different and independent balances, since different aid programs have different spending restrictions. The permissible categories for WIC purchases are different than for SNAP purchases, so EBT cards must reference multiple accounts for one user. Adding another category of funds to be spent might not be logistically difficult.
- Some states run debit card systems for different kinds of benefits, such as UI or child support. New York state apparently runs at least two.
- Also in New York, a proposal to establish a public payment system is in the legislature, though this is a far more ambitious project than is envisioned here, for the reasons mentioned above.[13]
- There are a variety of players in the space of developing payment systems that have applica-

[10]Gatch, 2012, op. cit.

[11]See https://web.archive.org/web/20100701025413/http://www.treasurer.ca.gov/warrants/index.asp https://web.archive.org/web/20100324200630/http://www.sco.ca.gov/5935.html

[12]https://www.sec.gov/investor/pubs/californiaiou-alert.htm

[13]https://www.vice.com/en_us/article/pked9v/new-york-is-proposing-the-creation-of-a-public-venmo, http://ronkimnewyork.com/downloads/The-New-York-Inclusive-Value-Ledger-Sept-2019.pdf.

ble expertise, such as Ripple, Zelle, IBM, Stellar, Zcash, Circle, and others. Many of these use blockchain technology, though that is not a necessary ingredient here.

- Finally, the smaller a jurisdiction is, the easier this ledger would be to implement. Recording a transaction, the fundamental activity behind the necessary software, is trivial, but questions of concurrency (how many transactions per minute it can handle) and security scale with the number of users. This memo has been written assuming nothing about what level of government would be most appropriate, but this consideration would be relatively important for an emergency measure.

As an aside, it is not perfectly clear that one would even want a tax credit ledger system to be interoperable with the existing payments system. There may be valid legal and logistical reasons to keep them separate, in which case, the EBT and payment system considerations above would be moot.

Lasting legacy As mentioned above, these county banks would be able to buy municipal debt. The Fed has begun to do the same, but will it continue? A permanent buyer would, and the county banks would be able to provide that sort of service. Finding a way to keep these county banks funded over the long term might be worth the benefit they provide.

If the county banks could accept "deposits," short-term investments from other state agencies, they could increase the potential leverage and the value of securities they can purchase. Over the long term, there are some obvious ways that such an institution could grow into becoming some variant of a real bank, turning the "deposits" into deposits, though there are probably other directions in which it could grow as well.

There are potential benefits to maintaining a state- or county-run payments system, too. As noted above, a payment system that only dealt in tax credits is a much easier thing to set up than one that had to interface with the existing payment system, but doing the simpler task might be a first step to taking on the more complex one.