THE RESOLUTION OF FINANCIAL INSTITUTIONS WITHOUT TAXPAYER SOLVENCY SUPPORT: SEVEN RETROSPECTIVE CLARIFICATIONS AND ELABORATIONS

EUROPEAN SUMMER SYMPOSIUM IN ECONOMIC THEORY, GERZENSEE, SWITZERLAND, 3 JULY 2014

PAUL TUCKER, HARVARD KENNEDY SCHOOL AND BUSINESS SCHOOL

Policymakers have committed to complete the steps necessary to cure the world economy of the Too Big To Fail (TBTF) problem by the time of the G20 Summit in Brisbane this autumn. This is, of course, the biggest component of the programme for reforming the international financial system[1]. From 2009 I led that work for the Financial Stability Board, but I must stress that I have not been party to it since I retired from office last October. I shall accordingly endeavor to make clear when I am recalling thinking while in office and when I'm offering a view on questions, and a few confusions, I've encountered since then[2].

I shall explain the analysis of seven issues, as I at least saw and still see them, after outlining the basic strategy for resolving large and complex financial institutions without taxpayer solvency support. The issues are:

-what is the difference between single-point-of-entry (SPE) resolution and multiple-point-of-entry (MPE) resolution?

-why resolution under the control of government agencies rather than bankruptcy under the control of the courts?

-why isn't there an international treaty, and can cross-border resolution work without one?

-why do most experts in this field advocate that so-called systemic groups be headed by a pure holding company (or, mutatis mutandis, intermediate holdcos for the subgroups of MPE groups)?

-what is the point of regulators requiring that a minimum amount of 'bailinable' debt be issued by those groups/subgroups rather than setting a higher minimum common-equity requirement?

-what has this got do with CoCos (contingent capital instruments)?

-can any of this really work in a systemic crisis?

---

[1] For a review of the overall programme, see Tucker, "Financial reform, stability and central banking", Brookings Hutchins Center on Fiscal and Monetary Policy 2014.

[2] My thanks for questions and discussions to a number of colleagues at Harvard, including John Coates, Oliver Hart, Howell Jackson, Mark Roe, Hal Scott, David Scharfstein, Andrei Shleifer and Larry Summers.

The basic model for resolving systemically important financial institutions (SIFIs)

The model developed by the international community is, broadly, to put losses exceeding equity onto bondholders and to have groups structured so that this can be achieved without damage to operational liabilities (pre-eminently deposits but also wholesale trading-related obligations.). The approach is, therefore, profoundly different technically from the resolution technique employed for modest sized, vanilla banks: Purchase and Assumption (P&A). P&A involves splitting a bank into its critical and non-critical parts, with the former (typically the insured-deposit book and any truly good assets) transferred to a bank purchaser, and the rump going into receivership. Absolutely essential prerequisites for P&A to work are: (a) the critical and non-critical activities can be identified *ex ante;* and (b) they can be disentangled in the heat of a crisis, ie *ex post*. Neither holds for a complex financial group.

By contrast, the resolution technique envisaged for SIFIs --- known as bailin --- works essentially as follows.[3] A financial group would be structured so that it is clear whether it would be resolved as a whole under the control of its home authorities or, alternatively, as a series of clearly defined regional (or country) subgroups under the control of relevant host authorities, with home-authority coordination of the plans taken as a whole. The former is known as single point of entry (SPE) and the latter as multiple point of entry (MPE).

Once either a group as a whole (for SPE) or a systemically significant subgroup (for MPE) was in severe distress, two steps would be involved in its resolution if the bailin power was deployed. Since the process is essentially the same for a whole-group or subgroup bailin, I shall not always make the distinction in this high-level summary.

The first step involves transferring losses exceeding a subsidiary's equity to its parent. In essence, the solution is for key subsidiaries --- overseas and domestic --- to issue super-subordinated debt (or extra equity) to their parent group/subgroup. The subsidiary's 'excess' losses are covered and its solvency is restored by writing down and converting into equity as much as is needed of the intragroup debt[4]. Thus, the subsidiary is recapitalized *without* going into default itself. That will at last make a reality of the long-standing doctrine --- underpinning all consolidated supervision but without binding substance up to now --- that groups should be a source of strength for their component parts.

Losses having being transferred up to a group/subgroup's top company, the second step is to ensure that that holding company can in turn be resolved in an orderly way if it is mortally wounded. This

[3] See Financial Stability Board "Guidance on developing effective resolution strategies", July 2013; and Tucker, "Resolution and the future of finance", Bank of England May 2013.

[4] It is economically equivalent to a collateralized parental guarantee. A simple, unsecured guarantee would be insufficient as it would leave a subsidiary and its host jurisdiction exposed to the ability and willingness of the holding company to pay.

requires that financial-group/subgroup holding companies maintain in issue a critical mass of bonds that can be 'bailed-in' to cover losses and recapitalize the group to the required equity level. The holders of those bonds become the new owners. (The previous owners lose their investment. Culpable management exit, perhaps after a short period in which they handover to a new top team.)

Through those two steps, a group-wide, global resolution can be executed without operations across the planet going into local liquidation or resolution. Compared with P&A, it is a liability reconstruction rather than an assets reconstruction. Its viability as a technique in any particular case depends on the feasibility of making a broad estimate of the scale of the losses; I stress *broad* estimate.

What is the difference between SPE and MPE resolution?

The SPE versus MPE distinction will, I believe, transform the way banks are structured, run and talked about over the coming decades. It should, for example, drive requirements on how equity capital is distributed across the entities in a group and policies on subsidiarisation. But what *is* the distinction?

This isn't an idle question. I occasionally come across people who say that the banking groups subject to MPE resolution will be the null set. When I dispute that, they admit to confusion about what MPE is. This is understandable, since the motivating thought behind bailin is that complex groups can be too complex to split up into 'critical' and non-critical business lines *in the heat of a crisis*, and yet a MPE resolution entails just that, splitting up a vast and complex group.

The key point here is that MPE-resolution doesn't involve radical surgery in the heat of the crisis. It is suitable only for those groups whose business model allows different business lines to be ring-fenced from each other (financially and operationally). If that condition is met, the group can be structured *ex ante* into separate 'parts'. 'Parts' is in quotes. Depending on the group in question, those 'parts' might be regional subgroups or single-country banks or a mixture of the two. It is conceivable, for example, that an international banking group might comprise a large number of single-country, medium-sized commercial banks operating independently.

If they were all small enough, each subsidiary within such a group might be amenable to P&A resolution within its local jurisdiction. Alternatively, some parts of such a group might not be amenable to P&A; even if they were ring fenced from the group's other businesses, they might be resolvable only via bailin. Thus, the technique that is integral to a SPE *whole-group* resolution, bailin, could be applied in an exactly analogous way to a *subgroup* of a global group. This is akin to adopting 'SPE' as a component of an overall MPE strategy for the group as a whole.

Why resolution under the control of government agencies rather than bankruptcy under the control of the courts?

This question has caused a great deal of angst and confusion in the USA. And if it is confusing for them, it leaves non-Americans slightly bewildered.

The driver of the mountains of technical work undertaken in the USA to try to make bankruptcy feasible for SIFIs is a much deeper debate about the relative role of the various components of the State under the US Constitution and, related to that, the role of discretion and who should exercise it. To caricature, one group favours the exercise of constrained discretion by the executive branch of government or independent agencies established by Congress, while another group favours the application by the judiciary of bankruptcy laws. That puts it too starkly: for example, US bankruptcy proceedings can involve negotiation amongst the parties in pursuit of their private interests (ie not taking account of negative externalities from spillovers to the rest of the financial system and economy); and judges can exercise considerable discretion. But putting the deep debates to one side, two things are worth saying.

One concerns the incorporation in Title 1 of Dodd Frank of a requirement for SIFIs to persuade the US Federal financial authorities that they could be wound down through a regular bankruptcy proceeding without negative effects on the economy. This is the essay question from hell, as of course no SIFI can conceivably pass that test; and all experts have surely known that from the outset. Meanwhile, the SIFIs have produced submissions running to many thousands of pages. My view from the outset has been that this risks being largely a waste of time unless it leads to simplification of organizational structures and yields information material useful for exercise of the authorities' special resolution powers. Unless they are dissembling, the process seems to have left not a few bankers believing that these submissions amount to a serious 'Living Will'. They don't. It would have been much better for everyone if that term could have been reserved for the actual resolution plans, using Dodd Frank's Title 2 powers, being drawn up by the authorities themselves.

More to the point of the big question here, however, are whether the efforts of lawyers and scholars to come up with plans to adapt domestic US bankruptcy law to cater for globally active SIFIs can conceivably work. These plans typically revolve around putting stays on repo and derivative contracts being triggered if the group enters bankruptcy. I was and remain very doubtful whether that would suffice --- even assuming a good law could be passed. My doubt has one of its roots in the courts having no obligation to weigh negative externalities, systemic-risk spillovers. The other, deeper problem arises from the *cross-border* nature of these groups. In the event of a US SIFI going into bankruptcy in the US, its branches, subsidiaries and affiliates in other jurisdictions, across the world, would all be liable to be called into default, either immediately or upon the consequent run by creditors and counterparties. Judges in those other countries would be asked to ring fence assets, freeze payments, set-aside US rulings. And --- here's the rub --- there would be and *could* be no planning for that in advance because judges cannot enter into specific *ex ante* commitments with their counterparts across borders. Indeed, no one can even know in advance which particular judge will take the case in the US or elsewhere.

If the administrative state has only one advantage over the courts in this area it is that agencies can plan, and can enter into commitments with each other. The agencies' challenge is how to structure those commitments so as to make them credible.

Why isn't there an international treaty, and can cross-border resolution work without one?

That --- the need for the authorities of home and host jurisdictions to commit to co-operate --- is the source of the question-cum-proposal: don't we need an international, binding treaty?

A treaty would be useful. It is not going to happen in this cycle of international financial reform. So is that it, game over? No.

The structure of a SPE resolution, as I described it, involved two stages. In the first stage, losses in a subsidiary exceeding equity would be transferred to its holding company by way of writing down/converting into equity a super-subordinated debt instrument held by the holdco. The trigger would be something like: if the conditions for the host authorities to put the subsidiary into local liquidation or resolution were met, they could instead trigger the intra-group debt conversion[5]. Plainly, that intra-group debt instrument needs to exist. And thus the holdco and the group's home authorities need to have agreed in advance to its existing. In addition, the local subsidiary's financial problem having been transferred to the holdco, the host authorities remain exposed to disorder in their jurisdiction if (a) the home authorities are not capable of conducting the SPE resolution of the holdco *and* (b) a mess in the holdco resolution would destabilize even the now newly recapitalized local subsidiary (or, more generally, global markets).

The effect is to force home and host authorities to *hard wire* up front how they will coordinate the resolution of a global group. And that means they find out *ex ante* whether they can co-operate on that hard-wiring, rather than, as in the recent crisis, finding out *ex post* whether they can cooperate in a more *ad hoc* resolution.

For example, if a group's home authorities will not make a holding company issue a minimum level of bailinable bonds (see below) or if they will not agree to a trigger, in the hands of host authorities, that allows excess losses to be transferred up to the group holdco, then host authorities know that the home is either unable or unwilling to effect a whole-group resolution. That is much preferable to discovering *ex post*, as a crisis breaks, that they can't rely on each other. The internationally agreed policy should, therefore, give a harder edge to discussions amongst home and host authorities in supervisory and crisis-management colleges. It is designed to do so.

[5] The host authority for a key subsidiary must have a hand on the trigger for converting intra-group debt into equity. If the home country alone controlled the trigger, host authorities would likely be worried that the home authorities might not, in fact, pull the trigger. That would not help to stem regional balkanization of banking groups operating internationally.

That big step needs to be accompanied by amendments to financial-market standards in order to ensure that triggering the intra-group debt does not count as an event of default in any other contracts, for example repos and derivatives. That is in hand, although in my view it was always liable to require the authorities to apply a hefty regulatory penalty to any non-compliant contracts.

Together this package substitutes for a treaty, through corporate and financial structure and by empowering host authorities. It *can* solve the challenges in the *cross-border* resolution of international banking groups.

<u>Why do most experts in this field advocate that so-called systemic groups be headed by a pure holding company?</u>

The strategy I'm explaining requires groups to have a pure holding company. That means the top company in a group (or, for a MPE case, the intermediate holding company for a subgroup) would have no assets other than its investment in the group's operating subsidiaries, and no liabilities other than the equity and bonds issued to the market. Crucially, it would not have operational liabilities, such as trade creditors, employee-obligations, depositors, derivatives counterparties. Further, it would not do anything complicated. Why is this so important?

It is a substitute for amending insolvency law.

Resolution is applied in the shadow of a standard bankruptcy proceeding. In particular, there is a duty on resolution authorities to follow the creditor hierarchy applying in insolvency/bankruptcy in its treatment of different classes of creditor in the resolution. Crudely, junior creditors can't be treated better than senior creditors; *super*-subordinated creditors can't be treated better than ordinary subordinated creditors, etc. Thus, if a regular operating company were to be the legal entity that went into resolution, any losses falling to its senior creditors, including regular senior bonds, would be shared *pari passu* across all senior creditors, including depositors and wholesale market creditors. That would undermine the concept of bailin, which is that bondholders ought to be able to take losses without the operating business being upturned.

One possible solution would be to require operating bank bonds to be issued in contractually subordinated form. But the specific contracts would, no doubt, be challenged in the courts when it most matters. And over the years bank issuers would salami slice middle-ranking and junior regulators as they diluted the clausing.

Another solution would be to amend insolvency law in every key centre so that any bonds issued by banks were automatically subordinated through the force of legislation. That would be a big undertaking, and would probably be accompanied by a broader review of the baseline creditor hierarchy under insolvency law. The world can't wait for that.

The solution I have favoured requires bonds to be issued from pure holding companies. It is a device to achieve *structural subordination* of bondholders, putting beyond doubt that they absorb losses after group equity holders but *before* anyone else. Everybody else would be a creditor of one or other of the various operating subsidiaries. They would have a prior claim on the cash flows generated by the underlying businesses. Equivalently, they would be bailied-in only if the holdco didn't have sufficient bonds in issue to cover the group's losses, so that ailing subsidiaries ended up going into resolution too.

<u>What is the point of regulators requiring that a minimum amount of 'bailinable' debt be issued by those groups rather than setting a higher minimum common-equity requirement?</u>

That highlights the importance, for this strategy to work, of the holdco having enough bonds in issue to absorb excess losses and recapitalize the operating businesses.

But why not just require more tangible common equity?

There are two answers to that. First, for good or ill, the authorities chose an equity requirement of approximately 7-10% for banks, depending on their size and complexity. A layer of loss-absorbing capacity --- *gone-concern* loss-absorbing capacity (GLAC) --- is needed over and above that. Otherwise, policy would be relying entirely on reducing the *probability* of failure.

Second, unlike equity holders who are exposed to upside in bank performance as well as the downside, bondholders are exposed to the downside in exchange for a fixed (nominal) return. Provided the resolution strategy is credible (to which I shall return), this gives holders of bank-holding-company bonds strong incentives to monitor and price banking risks. Bonds issued by the holding company will, therefore, be risky, 'information-sensitive' securities. That is a good thing. The counterpart of bonds being risk sensitive is that operating-company liabilities will be closer to being risk *in*sensitive[6].

In my view, regulators should require group holding companies[7] to issue *at least* as much long-term debt as their equity requirement. For the biggest groups subject to the highest 'systemic-surcharge' equity requirement, that means *at least* 10 percent of risk-weighted assets, producing total loss-absorbing capacity (equity plus bonds) of over 20 percent *before* any operating liabilities would need to absorb losses. As negotiations amongst authorities drag on over the course of this year, banks themselves

[6] The significance of the concept of information-insensitive securities, epitomized by money and money-market instruments, is stressed in a series of papers by Gary Gorton and Bengt Holmstrom. See, for example, Holmstrom, "The panic of 2007: comment on a paper by Gorton", Jackson Hole 2008.
[7] For multiple-point-of-entry groups, read: subgroup *intermediate* holding companies.

should come out and signal that they accept a tough policy on GLAC. That way, the lobbying power of some of the more reluctant banks and nations would be diluted.

What has this got do with CoCos (contingent capital instruments)?

That there has been a parallel debate about Cocos has been a source of confusion and distraction.

Cocos are bonds that convert into equity 'automatically' under purely contractual terms. There is no government agency exercising statutory powers involved. Thus cocos are fundamentally different from resolution. As I have said before, 'bailin' is a verb not a noun.

Cocos typically have triggers based on accounting or market-based capital ratios. Without getting into the demerits of each, obviously the trigger can be high or low. Put it too low and an ailing bank is liable to struggle to fund itself in the market before the coco converts; the firm doesn't survive long enough to be re-equified via the coco. Where to put any trigger is, therefore, formidably hard for issuers and investors to judge until the new post-Basel 3 regime is fully implemented and internalized in market behavior. Today, cocos with decently high triggers are likely to be prohibitively expensive, as they would be close to being in-the-money until banks have (truly) built tangible common equity in excess of the full, as opposed to transitional, Basel 3 standard.

Eventually, I can conceive that cocos with highish triggers might be issued as a means for the market to maintain control of its own destiny in the shadow of resolution. *High-trigger* cocos would be part of *recovery* strategy, helping a bank to top-up its equity base, but would not provide a resolution strategy.

Both now and in steady state, cocos are not a sufficient solution to TBTF. If it looks otherwise, the details probably warrant careful scrutiny.

Can any of this really work in a systemic crisis?

After that short interlude, we can return to the big question: will the resolution strategy I've summarized work, will it be credible?

Broadly, three points are made on the sceptical side. That the authorities won't have the balls to apply bailin. That if they were to, it would cause nasty spillovers even in the case of just one bank being bailed-in. And, third, that even if the technique is credible for idiosyncratic failures, it's not credible in a systemic crisis and so won't be used then. I believe each of these arguments to be flawed.

On the question of courage or self-interest, I invite you to think about how attractive it is for unelected officials to ask elected politicians for hundreds of billions for a taxpayer bailout. Have no doubt, resolution is a much more appealing option.

As to the risk of spillovers from imposing losses on bondholders, that is of course correct if nothing is done to mitigate it. The point is still made as if in complete ignorance of the FSB having outlined a plan in the summer/autumn of 2013.

Bank bonds should *not* be held by other banks. Indeed, for the same reason they should not be held by anything resembling a bank, ie issuers of monetary or other short-term runnable 'information *in*sensitive' liabilities. That means money market funds, conduits financed in commercial-paper markets, credit funds with demandable liabilities, and so on. Such constraints are absolutely necessary in order to avoid systemic fragility being recreated elsewhere in the financial system.

In the same vein, there will need to be 'concentration limits' on insurance company and pension investments in banking group bonds, so that they are not overly exposed to the industry.

As to the idiosyncratic versus systemic remedy point, there are two things to say. First, the promise of bailin being employed in idiosyncratic failures would enhance market discipline and so make a systemic case less likely.

Second, at the very least, in a systemic crisis the deployment of bailin would deliver burden sharing. Equity holders would be wiped out, *and* bondholders too. That's important for social justice, and for alleviating any burden on the taxpayer.

It is sometimes commented that pension fund policyholders and insurance company beneficiaries are the same households that would pick up the bill from a fiscal bailout. Of course. As economists are wont to say: ultimately there are only households. The point is that the incentives are different. Provided there is money at stake, asset managers are rather more likely to discipline imprudence than bureaucrats and politicians. At the least, creating incentives to combine forces --- market discipline alongside enhanced prudential supervision --- is the only sensible route to go.

<u>Conclusion: the structure of banking in the years ahead</u>

What I have described amounts to a major structural policy. Indeed, it is *the* big structural reform in the banking field. On my view, Volcker, Vickers and Liikanen are sub-plots. That doesn't mean they have no place in the restructuring of banking, but they are not the core of it.

Groups must have simpler legal, financial, and organizational structures that positively enable orderly resolution. That can make global banking a lot safer without balkanizing it. It is down to regulators and resolution authorities to deliver. Important technical steps are needed to get over the finishing line, including eliminating cross-guarantees and other clauses that could trigger contracts being declared in default when a group is being resolved[8]. But it is now basically a matter of will. Time presses… And there is a risk that the need for holding companies and intra-group super-subordinated debt gets lost in debates about GLAC. I would like to see some of the big European banks announce their intention to restructure to make themselves resolvable; they need to catch up with their US peers which, through an accident of regulatory history, already have holding-company-based structures. That declaration of intent doesn't need to wait until the GLAC numbers are pinned down.

It would be surprising, and alarming, if any country with SIFIs did not recognize solving TBTF as being hugely in its interests. For banking risk, the genie is out of the bottle. If the risk is not priced into bank bonds, it will be priced into government bonds. The people deserve better. That would be true at any time. But for the West, as its people adapt to the inexorable forces of globalization, it would be inexplicable if governments took the burden of bank risk into their own funding costs, limiting the support available for the core roles of the state.

[8] See FSB Report to the G-20, "Progress and next steps towards ending TBTF", September 2013.