

Six structures in search of stability

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SPECIAL PAPER 236

LSE FINANCIAL MARKETS GROUP PAPER SERIES

July 2015

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Abstract

This paper analyses the proposition that adjusting structure can strengthen safety and therefore promote stability. It examines six proposals: Liikanen, Volcker, the US rule requiring foreign banking organisations (FBOs) to establish an intermediate holding company (IHC), depositor preference, bail-in plus total loss-absorbing capital (TLAC) and Vickers. Each endeavours to restructure banks along one or more of the following lines: activity, geography and/or creditor hierarchy. Only the creditor hierarchy approach holds the promise of enhancing financial stability, and the complete reordering (bail-in plus TLAC) is distinctly superior to the partial reordering implied by depositor preference. Indeed, bail-in plus TLAC opens the door to making banks resolvable. That in turn makes segregation by activity or by geography superfluous.

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Six structures in search of stability

In the debate on financial reform there is an abiding faith that adjusting structure can strengthen safety and therefore promote stability. Is that faith justified?

We analyse six proposals: Liikanen, Volcker, the US rule requiring foreign banking organisations (FBOs) to establish an intermediate holding company (IHC), depositor preference, bail-in plus total loss-absorbing capital (TLAC) and Vickers. Each endeavours to restructure banks along one or more of the following lines: activity, geography and/or creditor hierarchy.

Table 1
Overview of structuring proposals

Proposal	Structuring principle		
	Activity	Geography	Creditor hierarchy
Liikanen	✓		✓
Volcker	✓		
US FBO/IHC		✓	
Depositor preference			✓
Bail-in/TLAC			✓
Vickers	✓	✓	✓

Do any of these measures make sense? Will they in fact enhance safety and/or promote stability?

Is assigning activities the avenue to safety and stability?

Perhaps the most persistent proposition in financial regulation is the hypothesis that segregating commercial and investment banking enhances safety and promotes stability. This lay behind the passage of the Glass-Steagall Act in the United States in 1933 in the aftermath of the Great Depression,¹ and it lies behind today's measures and proposals to restrict the ability of banks to engage in trading activities.

¹ On the rationale for the Glass-Steagall Act see (Benston, 1990). It should be noted that the Glass Steagall Act (48 Stat. 162 §§ 16, 20, 21, and 32) did not mandate a complete separation between commercial and investment banking. Under the Act commercial banks were permitted and did extensively engage in the origination, underwriting, trading and/or distribution of US government and agency securities, general obligation municipal bonds, derivatives, foreign exchange and loans.

Today's measures include:

- Proposals in the EU ("Liikanen") to require banking groups to segregate their trading activities into separately capitalised subsidiaries.²
- Measures in the UK ("Vickers") to require banking groups to conduct retail banking (specifically taking deposits from individuals and small to medium sized enterprises) in a separately capitalised, "ring-fenced" bank.³
- Measures in the United States to prohibit insured commercial banks from engaging directly in trading activities and to limit the ability of such banks to affiliate with entities engaged in trading activities. Under the so-called Volcker rule, groups containing a US-insured commercial bank may not engage in proprietary trading.⁴ Under the so-called swaps push out rule, banks are required to conduct derivatives trading activity in a non-bank vehicle and to clear standard derivatives through central counterparties.⁵

Ultimately, these measures depend to a great extent on the assumption or belief that investment banking – specifically trading activity – is inherently riskier than commercial banking.⁶

Commercial banks could also affiliate themselves with investment banks outside the United States without limitation and inside the United States with entities that were "not principally engaged" in the underwriting of bank-ineligible securities. In practice this meant that commercial banks could engage – subject to certain restrictions -- directly or indirectly in practically all aspects of investment banking. See (Carpenter & Murphy, 2010).

² The original EU proposal (European Commission, 2014) was based on the Liikanen (2012) report and is under review by the European Parliament (Hökmark 2014). National versions of Liikanen have already been introduced in Germany ([Gesetz zur Abschirmung von Risiken und zur Planung der Sanierung und Abwicklung von Kreditinstituten und Finanzgruppen](#) [Trennbankgesetz] and France ([LOI n° 2013-672 du 26 juillet 2013 de séparation et de régulation des activités bancaires](#)).

³ The Independent Banking [Vickers] Commission published its report in 2011 (Independent Banking Commission, 2011) to which the government responded in 2012 (HMT 2012) and on which the government based much of the Financial Services (Banking Reform) Act 2013. See (HMT/BIS 2013) for the consultation paper explaining the legislation and see (PRA 2014) for the consultation paper outlining how banks should implement the ring fence.

⁴ For the final text of the Volcker rule see (Joint US agencies 2014). See also (FSOC 2011)

⁵ [Section 716 \("Prohibition Against Federal Government Bailouts of Swaps Entities"\) of the 2010 Dodd-Frank Act](#). At the end of 2014 the swaps push out rule was substantially repealed.

⁶ As an example of the assumption that trading activities are inherently riskier, see the following statement (especially points [i] and [ii]) of the Financial Stability Board (2014a, p. 3):

"[P]roposals for structural reform have the objective of improving financial stability by:

- (i) reducing the risk of cross-contamination between investment and commercial banking, achieved by separating the capital allocated to the two activities and dis-allowing blended funding;

A simple thought experiment demonstrates that this need not always be so. Take the case where

- The investment bank's assets are on-the-run, liquid short-term government securities issued by a country such as the US or UK with its own fiat currency. Such securities have a negligible risk of default and extremely limited market risk. The bank actively trades such assets and its portfolio may contain a proprietary position in such assets.
- The commercial bank's assets are long-term, fixed-rate commercial real estate loans to project specific entities (e.g. "Office XYZ, Limited"), each of which is secured by a mortgage over the building. Although each of the buildings is currently leased to tenants, the leases are due to expire well before the maturity of the loan. In addition, some tenants are in arrears on their rent, and others may soon go into arrears as their income and credit-standing come under pressure.

Although the loan portfolio is well diversified with respect to specific projects (no single office obligor comes close to the bank's legal lending limit), the portfolio is exclusively in the bank's domestic market, concentrated in a limited number of metropolitan areas and dependent on tenants involved in a limited number of industries. Should "Office XYZ, Limited" default on its obligations under the loan, the bank must engage in a lengthy and costly foreclosure procedure before it can assume ownership and control of the building. Upon assuming such ownership and control, the bank might become liable (under the doctrine of lender liability) for claims on "Office XYZ, Limited".⁷

The long-term mortgage loans are not tradable, and may not be assigned or transferred without permission of the borrower. Loans are valued on the bank's balance sheet in line with the accounting principles generally accepted in the bank's home jurisdiction.

- On the liability side of the balance sheet, the investment bank and the commercial bank have an identical structure. A leverage ratio determines capital: CET1 capital is 4% of the bank's assets. In addition, the bank has issued subordinated debt (T2 capital) equal to 4% of the bank's assets. The

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- (ii) acting on the 'risk culture' of firms either by reducing the extent to which the incentives and risk-appetite of transactions-based trading activities are spread to relationship-based commercial banking activities, or by reducing the risks to banking groups stemming from trading activities themselves; and
 - (iii) increasing the loss-absorbency capacity in the banking system and improving the resolvability of firms."

⁷ On lender liability see (Ahrens & Langer).

remaining funding (equivalent to 92% of the bank's assets) constitutes short-term deposits, payable on demand.

In this example, it is the commercial bank that carries the higher risk and it is the commercial bank that would be more difficult to resolve, if the bank were to fail. The commercial bank carries more credit risk, entails more liquidity risk and poses more significant valuation issues. The investment bank in this case has minimal credit risk, minimal market risk and limited liquidity risk. Valuation is straightforward; indeed, such a bank could be continuously marked to market. In sum, this counterexample illustrates that a bank which engages in trading is not always and everywhere riskier than a bank which does not.⁸

Suppose the investment bank held assets similar to those of the commercial bank. How would the form of the asset influence the substance of the risk? Take the case where investment-grade corporates borrow on an unsecured basis by issuing loans and bonds. The loans and the bonds rank *pari passu* with one another and have identical covenants and maturities.

Under separation legislation and regulation the commercial bank would hold the loans, whilst the investment bank held the bonds (pending onward sale of the bonds to end investors). Does this imply that the commercial bank is safer than the investment bank?

No. Take the case where the assets and liabilities of two different banks are identical in every aspect save one: the investment bank holds its claims on the corporate borrower in the form of a tradable bond; the commercial bank holds its claims on the corporate borrower in the form of a non-tradable loan. The only difference between the loan and the bond is the fact that the bond is tradable, whilst the loan is not.

Otherwise, the two banks are identical. Capital and funding are the same. The obligors are the same. For each obligor the loan and the bond have the same probability of default. If the obligor does default, the bond has the same priority as the loan, and should therefore have the same loss given default. Hence, the credit risk of the two banks is identical.

The principal difference between the two banks is liquidity risk. If the bonds are tradable, whilst the loans are not, the investment bank's bond portfolio is inherently more liquid than the loans held by the commercial bank. The bonds can either be sold to third parties or pledged as collateral to lenders; the loans cannot (as they are neither tradable nor transferrable without the consent of the borrower). All else equal, this would imply that the investment bank had lower liquidity risk than the commercial bank.

⁸ Indeed, the investment bank outlined in this example corresponds – except for the fact that it trades the securities rather than merely holds them – to the “narrow bank” advocated by many as the foundation for banking reform.

A second difference relates to how assets are valued and income is recognised. In concept, the tradable bonds are marked to market, and changes to the bond's value flow through the income statement of the bank. This in turn has an immediate impact on capital – positive if the price of the bond has increased; negative, if the price of the bond has fallen. Note that these effects on income and capital occur, regardless of whether or not the bank has actually sold the bonds. What counts is the estimate of the bond's fair market value. The greater the market liquidity of the bond, the more accurate will be this estimate.

In contrast, loans are valued at historic cost less any impairment the bank may be required to take under the applicable accounting standards. Under this method, the value of a loan is generally capped at par, or 100% of the principal amount that the bank expects to receive upon the maturity of the loan. Valuation therefore depends critically on how impairments are determined. This depends on current estimates of the borrower's future cash flows as well as current estimates of what future recoveries might be, if the borrower were to default. Note that to make such estimates the bank may employ models. In any event, the valuation of a non-tradable loan portfolio is likely to be more complex and less certain than the valuation of a frequently traded, highly liquid portfolio of corporate bonds.

Both the investment bank and the commercial bank are subject to the risk that the assets are overvalued. Such an overvaluation would exaggerate the level of capital, giving the appearance that the bank had lower leverage and therefore lower risk than is actually the case. If the investment bank has marked up the bonds in its portfolio, there is the danger that it will not be able to realise the unrealised gains, if it decides to sell the bonds. If the commercial bank has delayed taking impairments on its loan portfolio, there is the danger that it will have to do so all at once. If either of these dangers actually occurs, the stated capital would suddenly collapse toward the "true" value, possibly causing a run on the respective bank.

Separation of investment and commercial banking does not cure the risk of overvaluation. That requires changes to the way banks value their assets and liabilities and/or adjustments to the ability to count the full accounting value of the asset toward regulatory capital. Such changes are under consideration or already in implementation. With respect to loan impairments, a shift to an expected loss model under IFRS 9 should lead banks to reserve in a timelier manner against possible future loan losses.⁹ With respect to valuation of the trading book, Basel III incorporates measures to require banks to effectively take a reserve against fair market value to offset uncertainty regarding the data and models underlying the estimate of fair market value as well as to account for possible future costs.¹⁰ In

⁹ (IASB 2014) summarises IFRS 9. For a summary of how the shift to the expected loss method will affect capital requirements see (BCBS 2015).

¹⁰ (d-fine, 2014).

addition, the fundamental review of the trading book will in all likelihood scale capital requirements for trading book positions to market liquidity.¹¹

The third and final objection to separating investment and commercial banking is a practical one: it may not work. The difference between securities and loans is eroding. Bonds are becoming less and less liquid, and loans are becoming more and more tradable.

Over the past few years it has become more and more difficult to sell bonds in the secondary market in sizable amounts without moving the price. In other words, market liquidity has declined. This predominantly results from a decline in the number of market makers and a decline in the inventories held by banks that still make markets (both in turn caused to some extent by the significant increase in capital requirements for instruments held in the trading book). For all but on-the-run benchmark obligations, the primary market may become the only bond market, creating the prospect that the investor can buy only at issuance and may not be able to sell before maturity.

In contrast, over the past few years it has become progressively easier to buy and sell loans in the secondary market. Loan documentation has become increasingly standardised, and borrowers have largely dropped the requirement that lenders seek their approval before assigning or transferring loans. The infrastructure for loan trading has also developed: loan agents act on behalf of the holders of loan participations to disburse funds to the borrower; collect interest and amortisation payments from the borrower and disburse them to investors; and monitor the borrower's adherence to any covenants that the loan agreement may contain. And, for the largest loans, banks form syndicates to underwrite and distribute loans. Taken together, the loan market is evolving toward bond market practices.¹²

As bonds and loans become more similar, does this not undermine the rationale for banning proprietary trading? If banks are to be prohibited from taking a proprietary position in tradable instruments, and loans become tradable, should banks be banned from holding loans that are tradable? If so, banks would be pushed into an ever more narrow space and play a decreasing role in financing the real economy. In contrast, if banks can continue to hold loans that are tradable, but face restrictions on holding bond positions, issuance, trading and ultimately market liquidity may well shift to the loan market. And, if that were to occur, what will the separation of investment and commercial banking achieve?

¹¹ BCBS 2014).

¹² (Marsh & Basta, 2015). The advent of peer to peer lending platforms will accelerate this trend.

It will certainly not lead to greater simplicity. Corporate structures will become more complex, not less, above all relative to a universal bank, which can and predominantly does operate as a single legal vehicle.¹³

Nor will separation alone assure resolvability. It may enhance the ability of the authorities to resolve the entity that it is most concerned about (usually the domestic bank taking insured retail deposits), but it does not assure the resolvability of the group as a whole. In addition, separation leaves open the question of how investment banks can be resolved. Leaving these to normal bankruptcy proceedings (as was done in the case of Lehmans) could create financial instability. What assures resolvability is bail-in in accordance with the creditor hierarchy and the insistence that banks issue instruments to third-party investors (or to their parent holding companies) that provide the bank with a minimum amount of total loss-absorbing capacity (see below).¹⁴

Finally, separation alone will not necessarily improve culture. It is undeniably true that the current culture of investment banking differs from people's ideal of what commercial banking should be (and allegedly was in the past). But commercial banking does not currently conform to that ideal (if it ever did). Indeed, fines and settlements for transgressions in cash management/payments, mortgages and payment protection insurance are all point toward culture being a generic problem rather than one restricted to trading activities,¹⁵ and toward revisions in governance as being the solution rather than separation of trading from non-trading activities. Indeed, such revisions are already underway: programmes such as the senior manager regime in the UK will serve to increase the individual manager's accountability, if the bank were to breach the rules.¹⁶

Does Balkanisation bolster the bank?

Most banking regulation has a distinct home-country bias.¹⁷ This has increased in the wake of the crisis. Balkanisation is the likely result.¹⁸

¹³ Regulation will become more complex and compliance more difficult. Take for example, the requirements for mandatory clearing in the US and the EU. These are not exactly consistent with calls by regulators for greater simplicity, particularly when one takes into account the fact that the rules and requirements in the two jurisdictions are in conflict.

¹⁴ According to Taylor (2015) separation was intended to prevent the implicit subsidy from taxpayers associated with deposit insurance and the access to the payment system from being applied to investment banking. However, the introduction of depositor preference, together with the GLAC requirement, effectively eliminates the implicit subsidy (see below). Separation is superfluous.

¹⁵ The CCP Research Foundation (2015) documents the amount and cause of penalties attributable to misconduct by banks.

¹⁶ For a description of the senior managers regime see (PRA/FCA 2014).

¹⁷ Indeed, the laws allowing banks to establish foreign branches or foreign subsidiaries specifically refer to the ability of such branches or subsidiaries to promote the foreign trade and foreign

Home country authorities have made proposals and in some cases taken measures to limit the involvement of domestic banks in foreign activities. For example, under Vickers the ring-fenced bank may not have foreign branches,¹⁹ or create foreign subsidiaries.²⁰ More generally, supervisors may restrict domestic banks from acquiring assets or issuing liabilities in foreign currency and/or booking assets originated outside the home country.

Host country authorities have made proposals and in some cases taken measures to force foreign banking organisations to operate as if they were a domestic bank. For example, under the US FBO rule, the US authorities have forced foreign banking organisations with large operations in the United States to form intermediate bank holding companies that will be subject to the same enhanced prudential standards as systemically important US bank holding companies.²¹ With respect to branches, host country authorities have introduced in some cases a net asset requirement, and/or restricted the access of the foreign branch to the domestic central bank's lending facilities.

What is the rationale for such a home-country bias? It cannot be simplicity: relative to a bank with branches in host countries, a banking group with separate subsidiaries in each of the host countries is certainly more complex. If simplicity is the objective, Balkanisation is not the right way to achieve it, at least as far as the group as a whole is concerned.

Nor can reduced risk be the rationale for Balkanization. Foreign assets are not inherently riskier than domestic assets. A domestic non-recourse, high LTV mortgage to a borrower with little or no income is not inherently safer than short-term trade finance to foreign manufacturers. And, a domestic bank with solely domestic assets almost surely has more concentration risk than a bank with foreign branches. The former is likely to be exposed to a single economy or even a single line of business or market within that economy whilst the latter may be diversified across a number of different economies or lines of business.

investment of the home country. There are also greater restrictions on the flow of capital and/or liquidity from the home country to foreign subsidiaries or affiliates. For example, in the United States, bank holding companies are required to act as a source of strength to their domestic insured depository institutions, but not to foreign bank subsidiaries (indeed, injections of new capital into foreign subsidiaries requires prior approval by the Federal Reserve Board). See (Lee 2012).

¹⁸ Goodhart (2013, pp. 254-55).

¹⁹ For example, under Vickers the UK ring-fenced bank may not have branches outside the EEA (and may only have branches within the EEA since the Treaty grants – under the principle of freedom of establishment -- banks incorporated in one EEA Member State the right to establish branches and provide services across the entire EEA).

²⁰ Under Vickers, the ring-fenced bank may not have subsidiaries located outside the EEA.

²¹ See (FRB 2014).

If reduced risk is not the rationale for a home country bias, what is? Can resolution be responsible, at least to some extent?

Almost certainly. Indeed, in introducing the IHC requirement for US subsidiaries of foreign banking organisations (FBOs) the Federal Reserve Board (2014) expressed doubt regarding the ability of an FBO “to provide support to all parts of its organization.”²² By requiring the IHC to adhere to the full heightened US prudential standards on solo basis, the rule effectively mandates that the foreign banking parent act up front as a source of strength to its US subsidiary.²³

In the view of the Federal Reserve, the IHC “reduces the need for an FBO to contribute additional capital and liquidity to its U.S. operations during times of home country or other international stresses, thereby reducing the likelihood that a banking organization that comes under stress in multiple jurisdictions will be required to choose which of its operations to support.” In other words, the IHC rule makes it less likely that the US entity will fail. The rule also gives the US authorities the option to resolve the US entity separately from the rest of the group, even if the home country authority wishes to implement a single point of entry approach.²⁴

Reordering the creditor hierarchy

The third principle looks at the structure of the bank’s liabilities, rather than the banking group’s legal vehicle structure. Reordering the creditor hierarchy attempts to make banks resolvable. If that can be done, it will go a long way toward assuring financial stability.

We examine two variants: a partial reordering (depositor preference) and a complete reordering (together with the introduction of bail-in and a requirement that banks maintain a minimum amount of total loss absorbing capacity [TLAC]).

Depositor preference gives deposits a first claim on the unencumbered assets of the bank. This facilitates resolution, for it enables the resolution authority to cherry pick the best and/or most easily valued assets to match the deposits that would be transferred to a bridge bank or sold to a third party via a purchase and assumption transaction. Such resolution methods generally enable depositors to retain access to their accounts. This assures continuity and enhances financial stability.²⁵

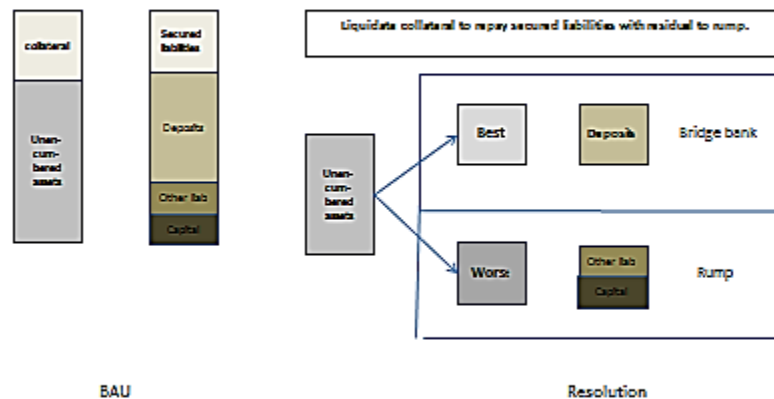
²² Resolution also plays a role in the regulation of foreign branches. See discussion on depositor preference below.

²³ In addition, the rule requires the IHC to have governance arrangements that give the US entity some measure of independence from its foreign banking parent. Taken to the extreme, this would effectively mean that the IHC was a US bank with a foreign shareholder.

²⁴ See Huertas 2015a.

²⁵ However, both the bridge bank and purchase and assumption transactions tend to leave behind a rump of lower quality and/or less easily valued assets, such as non-performing loans. If the rump is

Figure 1
Depositor preference facilitates resolution



However, depositor preference is not a complete solution. Creditors of the bank will seek to offset depositor preference via lending on a secured basis. If done through repurchase agreements such lending has what amounts to a super-senior claim on the assets sold to the lender. If the bank fails to repurchase the assets as and when agreed, the buyer [lender] has the right to sell the assets immediately and use the proceeds to meet the seller's [borrower's] obligation to repurchase. Similarly, covered bonds require the bank to pledge an amount of assets greater than or at least equivalent to the amount of the bond issue outstanding. These pledged assets are unavailable to meet obligations to depositors. Without limits on encumbrance or a requirement that banks issue unsecured debt instruments subordinate to deposits, banks and their creditors can effectively circumvent depositor preference.

Preference for insured deposits only (as in the UK ring-fenced bank) is even less complete as a solution. Uninsured deposits are subordinated and likely to suffer significant losses, if left behind in the "rump" created when insured deposits are either transferred to a bridge bank or to a third party in a purchase and assumption transaction. This makes such depositors more likely to run and the bank more likely to fail.²⁶

Nor is granting preference solely to domestic deposits anything more than a partial solution. From the vantage point of the host country, it is essential to be sure that

large and/or the primary source of credit to particular markets, communities or industries, liquidation of the rump may have adverse consequences for financial stability.

²⁶ Note that disclosure requirements may aggravate this prospect. Under the proposed UK secondary legislation banks are not required to disclose the degree of subordination to which the uninsured depositor is exposed.

the home country regards the bank's foreign branches as an integral part of the bank not only before the bank has reached the point of non-viability, but in resolution as well. That cannot be the case where there is domestic depositor preference and the law requires the home-country resolution authority, in reaching its decisions, to have regard to *domestic* financial stability.

If a bank fails in such a regime, the home country resolution authority has the option to create a bridge bank and to transfer the bank's domestic deposits into the bridge bank, matched by an equivalent amount of assets.²⁷ As the domestic deposits have preference, the home country resolution authority may cherry pick the best assets from the bank's portfolio for transfer into the bridge bank. This process will assure continuity and enhance financial stability in the home country.

However, such a process could cause instability in foreign jurisdictions where the bank had branches, especially if such branches were systemically important in the foreign jurisdiction. The domestic cherry-picking process would not only subordinate the obligations of the bank's foreign branches to its domestic deposits, but could also lead to the liquidation of the foreign branch, interrupt the continuity of critical economic functions that the foreign branch may have performed in the host country and therefore adversely affect financial stability in the host country.²⁸

²⁷ Even if the home country does not explicitly grant domestic liabilities preference ex post, there remains the possibility that it will do so ex post via emergency legislation or executive order at the time the bank fails. From an economic perspective the home country is more likely to do so, if the liabilities of the foreign branch have primarily been used to fund assets in the home country.

²⁸ To defend against these possibilities, the host country may make its authorisation of the branch of a foreign bank depend on the resolution plan of the home country for the bank as a whole. The host country will authorise the branch of the foreign bank if and only if it is confident that the home country's resolution plan for the bank would not jeopardise financial stability in the host country. Additionally, the host country may impose a net asset requirement on the branch and/or limit the amount of funding that the branch may provide to the parent bank. These measures act effectively as shadow capital and liquidity requirements on the branch of the foreign bank, and turn the branch into a quasi-subsiary.

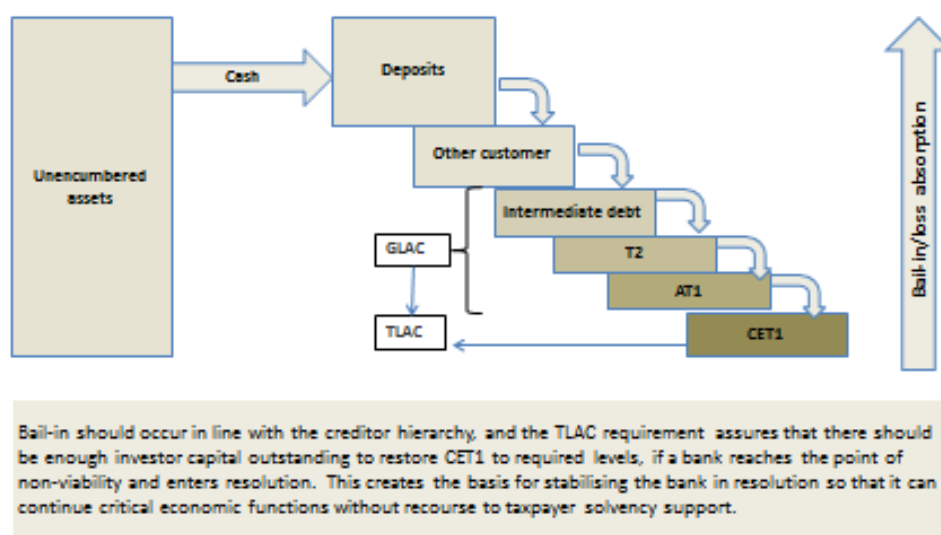
Finally, host countries in jurisdictions that take a territorial approach to bank resolution have a further option, namely to resolve the branch of the foreign bank separately from the resolution process for the parent bank.

Under the territorial approach each jurisdiction first liquidates the assets in that jurisdiction and uses the proceeds to pay the off the liabilities of the bank in that jurisdiction. This effectively transforms the liabilities of the branch into what amounts to a covered bond secured by a claim on the assets of the branch. If the proceeds of the asset sales exceed the amount of the bank's liabilities in that jurisdiction, the excess is paid into the general estate of the failed bank. If the proceeds of the asset sale are insufficient to cover the bank's liabilities in jurisdiction A, those liability holders have a senior unsecured claim on the general estate of the failed bank. For a fuller discussion see Lee (2014).

Faced with such a possibility, the home country authorities may wish to consider whether they should allow banks to have foreign branches at all. From the vantage point of the home country, the resolution regime in the host country has a significant bearing on whether the home country should allow its domestic banks to have foreign branches. This is especially relevant for cases where the home country takes a unitary approach to resolution whilst the host country takes a territorial approach. In such a case, a decision of the host country to liquidate the bank's branch in the host

In contrast, the complete approach to the credit hierarchy offers more promise of making banks resolvable.²⁹ In this approach, legislation firmly establishes the order in which a bank's liabilities would bear loss (see Figure 2). This corresponds to strict seniority, so that losses are first borne by common equity, then by other capital instruments (additional Tier 1 and Tier 2), then by "intermediate debt", followed by customer obligations such as derivatives, and finally by deposits (if they are given preference). Furthermore, the complete approach envisages giving the resolution authority a "bail-in" power to impose such losses at the point of non-viability via conversion (to common equity) or write-down.

Figure x
Bail-in plus TLAC creates the basis for resolvability



Finally, the complete approach envisages imposing a requirement that banks maintain a minimum amount of total loss-absorbing capacity (TLAC). TLAC consists of the bank's common equity Tier 1 capital (CET1) plus Additional Tier 1 (AT1) and Tier 2 (T2) capital instruments as well as qualifying "intermediate" debt (collectively gone-concern loss-absorbing capacity [GLAC]). The GLAC instruments are effectively investor obligations. They should be subject to conversion (to CET1) or write-down at the point of non-viability and subordinate to customer obligations such as deposits and derivatives. That will certainly be the case for Additional Tier 1 and

country could effectively force the home country to put the entire bank into liquidation. This would almost certainly lead to higher losses for creditors in the home country as well as to an interruption in critical economic functions and hence to disruption in financial markets and the economy at large.

²⁹ Overall, the complete approach is similar to the structure that banks themselves have employed in creating securitisation vehicles.

Tier 2 capital instruments,³⁰ and it must be the case for unsecured debt instruments, if they are to count toward the TLAC requirement.³¹

If there is enough GLAC available at the point of non-viability, the conversion or write-down of such instruments will restore common equity Tier 1 to a level at or above the minimum requirements for authorisation.³² This is the foundation for what amounts to a “pre-pack” resolution procedure, one that requires investors, not taxpayers, to bear the losses associated with bank failures, and one that can assure continuity and preserve financial stability.

Conclusion

In sum, “bail-in + TLAC” is the route to resolvability and therefore the route toward financial stability. In contrast, segregation leads to fragmentation, be it segregation of activities (trading and non-trading) or segregation of locations (domestic and foreign). Segregation alone does not reduce risk, and segregation alone does not assure resolvability. Nor does segregation create simplicity. If anything, segregation will increase complexity.

Consequently, one may ask whether segregation is still proportionate. Take Vickers as an example.³³ In the original proposal, the ring fenced bank had [insured] depositor preference, higher capital requirements and stricter governance than the other components of the banking group. In the interim, law and regulation have changed so that the additional protection afforded to the ring-fenced bank now applies to the entire bank:

- Deposits have preference in the bank as a whole. Under the BRRD deposits are accorded preference. Together with the TLAC/GLAC and MREL requirements this practically eliminates risk to the deposit guarantee fund and therefore practically eliminates any subsidy that deposit insurance may have provided in the past.
- TLAC and MREL will apply to the bank as whole. TLAC corresponds to the concept of primary loss absorbing capacity contained in the Vickers proposal, and the calibration proposed for the whole bank is on the order of that proposed for the ring-fenced bank.

³⁰ Under Basel III such instruments must be subject to conversion or write-down at the point of non-viability, if they are to continue to count toward capital requirements.

³¹ In addition, the debt should be subordinated to deposits and other operating liabilities. Hence, the label “intermediate debt” in Figure 2.

³² The current proposal for TLAC (Financial Stability Board, 2014) requires that one third of TLAC consist of debt. This effectively constitutes a GLAC requirement. Whether this will be sufficient to recapitalise the failing bank depends heavily on whether the authorities intervene whilst the bank has positive net worth or exercise forbearance (see Huertas 2015a).

³³ For further discussion see Huertas 2015b.

- Stricter governance applies to the bank as a whole. The senior manager regime introduced in the Financial Services (Banking Reform) Act 2013 increased accountability of executives and directors at UK banks, not just the ring-fenced bank. If a UK bank breaches rules or regulations, management and directors must show that they had taken all reasonable steps to prevent such a breach (“reverse burden of proof”). And, if a UK bank were to fail, senior executives and directors would be subject to criminal indictment and criminal penalties (unlimited fines and up to seven years’ imprisonment), if the prosecution were able to demonstrate in court that the bank’s failure were due to reckless misconduct by the individual concerned.

In sum, if the resolvability of the whole bank can be assured, segregation becomes superfluous.

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