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Secretariat of the Basel Committee on Banking Supervision
Bank for International Settlements

STRENGTHENING THE RESILIENCE OF THE BANKING SECTOR – ADDITIONAL CONTRIBUTION BY THE MINISTRY OF FINANCE OF FINLAND TO THE COMMITTEE'S CONSULTATIVE DOCUMENT

In this contribution Ministry of Finance Finland proposes an integrated model that includes leverage ratio, countercyclical buffers and systemically important financial institutions. As we are concerned about the possible excess complexity of different, overlapping prudential measures, we prefer a simple, integrated approach that would be operationally effective to implement and would tackle the problems of procyclicality, excess leverage and the issue of SIFIs.

1 General approach

Finland welcomes and shares the Committee's preliminary view on the need to tackle the issue of procyclicality. We are, however, concerned about the complexity of the forthcoming regulatory framework, characterised by a variety of new measures serving partly the same purposes and requiring a lot of new data to be collected by the institutions to meet the new requirements. The new framework should, therefore, aim at a maximum simplicity and consistency between different measures.

Regarding procyclicality, there are three separate approaches: the expected cash flow (ECF) –model, dynamic provisioning and countercyclical capital buffers. Finland's view is that the two latter could ease the problem of procyclicality, whereas we are rather dubious about the ECF-model. In particular, the ECF-model is crucially dependant on the banks ability to estimate the expected stream of cash flows and therefore the model could, in a worst-case scenario, actually increase procyclicality. The model is, according to preliminary analysis, very sensitive to parameters.

Moreover, it appears to be largely superfluous to introduce both dynamic provisions and countercyclical buffers because they both serve the same purpose of making the required amount of capital more stable. While dynamic provisioning in principle dampens the effect of procyclical capital requirements, we believe that, given the practical difficulties related to dynamic provisioning, the issue of countercyclicality should be primarily dealt with by countercyclical capital buffers. In particular we are



strongly of the opinion that the current regulatory framework for accounting, based on the IFRS, should not be interfered by prudential measures.

Also, we do not believe that it is useful to increase the current minimum capital requirements (Pillar I requirements) since the experience has shown that the supervisors (and the markets) do not allow banks to fail to meet this minimum level even temporary. Consequently, the minimum capital requirements do not properly function as buffers on a going concern basis. It could be even said that it does not really matter at which level of minimum capital requirements a bank fails to meet those requirements, because its capital base must in any case be restored either by private sector or by the government before the bank hits the regulatory minimum level. Therefore we propose that the additional capital requirements to create countercyclical buffers should be based on an additional upper minimum level above the regulatory minimum, along the lines of the two-tier capital requirement framework recently adopted for insurance companies in Europe (so-called Solvency II). In this model the additional buffers should meet a higher target level above the Pillar I minimum level with less severe consequences if this higher level is not met.

As it has become evident that the main cause of the current crisis is the mispricing of risk and excess leverage, we propose that the countercyclical capital buffer size should be related to the size of the balance sheets instead of the risk-weighted assets. Moreover, we agree on the integration of 'leaning against the wind' –approach in such buffering, i.e., we support the idea of measuring the cycle through credit growth. The preferred approach would be that of measuring the deviation of the credit growth from its moving historical average through the cycle.

We therefore propose that the model should be based on additional capital requirements (buffers) that are:

- Countercyclical by being based on the credit growth deviation from its moving average
- Encapsulating the problem of excess leverage and mispricing the risks (buffer depends on leverage)
- Progressive, creating disincentives for excessive growth
- Elastic by not affecting the Pillar I minimum capital requirement and thus functioning as genuine buffers.

As the proposed upper minimum level would be determined by the balance sheet size of the bank, the model would provide a supplementary backstop regime that could replace a separate leverage ratio.

In addition to dealing with countercyclicality and providing a back stop regime (a leverage ratio), the above approach would contribute to alleviating the too big to fail (SIFI) -problem by introducing disincentives for balance sheet growth by way of applying the upper capital limits progressively.

The difference between the Pillar I minimum levels and the proposed additional higher minimum level would be that if a bank does not meet the higher level, it can continue its business but additional supervisory measures or sanctions such as a prohibition to distribute profits could be applied.

To sum up the overall framework would consist of the following elements:

- 1) Introducing an additional minimum capital level above the current Pillar I minimum based on the size of the bank and the required amount of capital buffers, creating a "buffer zone" without affecting the current Pillar I minimum requirements and providing a back stop regime (leverage ratio).
- 2) Determining the upper minimum capital level progressively in relation to the size of the bank, providing a disincentive for excessive balance sheet growth, thus contributing to solving the SIFI issue.
- 4) Requiring the competent authorities to prohibit distribution of funds (and to take other supervisory measures to be defined) if the upper minimum level is not met.

2. A detailed description of the proposed model

- The model is based on balance sheet size, as size is a good proxy for identifying a SIFI. Therefore a leverage ratio is automatically implemented, the required amount of Tier 1 capital is supplementary to the Basel 2-requirement
- The model is progressive, very large banks need relatively more capital than small and medium-sized banks after a certain size threshold (the size distribution of the banks is skewed).
- The model is countercyclical, the phase of the cycle measured through deviation of credit growth from its over-the-cycle geometric average
- The model provides a genuine buffer: the additional capital requirements resulting from the model do not affect the Basel II minimum requirements, instead they constitute an additional upper limit, the breach of which would result in Pillar II supervisory measures such as prohibition of distribution of profits.
- Model does not include the element of dynamic provisioning because the same effect can be reached by capital buffers, it is unnecessary to introduce both “belt and suspenders”

The required amount of Tier 1 capital is (a bank has to have the minimum requirement fulfilled also) defined through:

$$V(t) = kA^2(t) \left(\frac{C(t)}{\overline{C(t)}} \right)$$

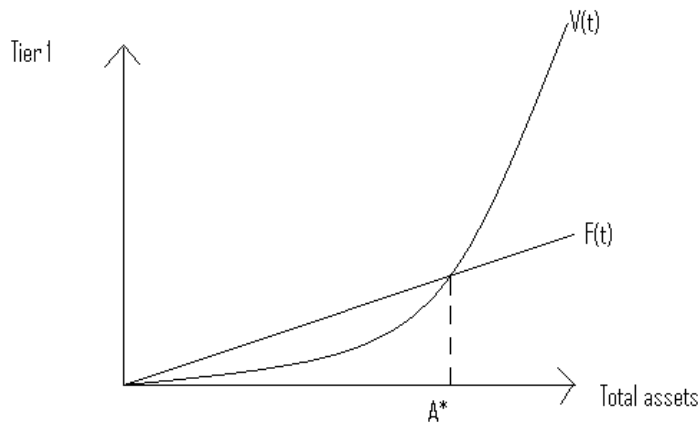
$$F(t) = lA(t) \left(\frac{C(t)}{\overline{C(t)}} \right)$$

The countercyclical factor is defined through:

$$\left(\frac{C(t)}{\overline{C(t)}} \right) = \frac{C(t) / C(t-1)}{[C(t-1) / C(t-n)]^{\frac{1}{n-1}}}$$

Where $C(t)$ is the amount of credit (or banking assets) in an economy at time t .

The following figure illustrates the required amount of Tier 1 as a function of balance sheet size



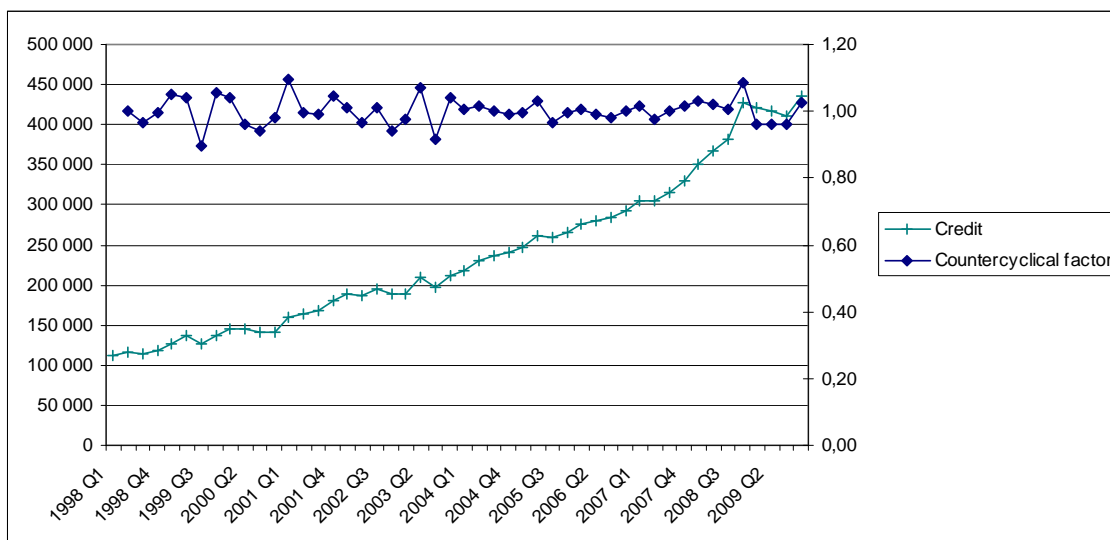
- $F(t)$ is the required supplementary amount of Tier 1 –capital for small and middle sized banks and $V(t)$ is the required supplementary amount of Tier 1 –capital for large banks
- $A(t)$ is the disclosed value of all assets (including the book value of derivative contracts) + the total nominal value of guarantees and other such contingent liabilities
- l is a parameter (unitless), k is a parameter (unit=1/billion euros)
- The countercyclical factor is disclosed by the national authorities (Central Bank, FSA)
- The countercyclical factor measures the relative deviation of the current credit growth from its historical geometric average:

The actual required supplementary amount of Tier 1 will be $V(T)$, if $A(t) > A^*(t)$ and $F(t)$, if $A(t) < A^*(t)$. The threshold is therefore $A^* = l/k$

3. Application of the model; case Nordea Finland

The countercyclical factor, example with Finnish data:

- Quarterly data, from 1998-2009 (Bank of Finland) → the range for the countercyclical factor is $[0.90, 1.10]$



Bank specific calculation

- Data from Nordea Finland Annual report 2009
 - Total assets: 221 billion EUR
 - Risk weighted assets: 72 billion EUR
 - Tier 1 capital: 10 billion EUR
 - By definition, the countercyclical factor has the expected value of 1; one can proceed to calibrate the parameters l and k .
 - Take $l=0,025$ (that is, a canonical leverage ratio of 2,5 %) and set $A^*=100$ billion euros (reasonable for Finland)
- Then $k=0,025/100$ billion
- For Nordea Finland ($A \sim 221$ billion), one would have $V(t)=12,21$ billion → 5,5% of assets
- The actual demanded supplementary buffer is then $12,21-10=2,21$ billion euros
- Taking into account the actual value for the countercyclical factor, one has to multiply the required amount by 0,96 (due to crisis) → $0,96 \cdot 12,21 = 11,72$ billion
- So for Nordea Finland → would need additional funds 1,72 billion
- The parameters should be calibrated well, this is just an example!
- The parameters A^* , l and thus k should be defined for each sovereign jurisdiction separately (to encapsulate SIFIs in each country)
- The threshold balance sheet should be related to the overall banking assets in the economy, e.g.

$$\frac{A^*}{\sum A_i} \geq 25\%$$

If you have any inquiries about the model, please be free to contact the Ministry (Mr. Jussi Lindgren, e-mail jussi.lindgren@vm.fi, tel. +358-9-16034922).