MINISTRY OF FINANCE

16 April 2010

POSSIBLE FURTHER CHANGES TO THE CAPITAL REQUIREMENTS DIRECTIVE – RESPONSE BY THE MINISTRY OF FINANCE OF FINLAND TO THE COMISSION SERVICES STAFF DOCUMENT

I Summary

General

The Ministry of Finance of Finland shares the view that further regulatory measures are called for to strengthen the resilience of the banking sector. We are, however, concerned about the complexity of the set of planned measures, resulting at this stage in difficulties to make sufficiently extensive impact studies, and later when implemented, a heavy administrative burden for the industry, possibly without clear evidence for the overall positive impact of the measures adopted.

For this reason, the Finnish authorities would like the Commission to consider solutions with would be, to the extent possible, simple, conceptually consistent and relying on information already gathered by the institutions. We also find it important that the necessary measures are implemented within the prudential framework without interfering with the accounting regime.

As far as the timing is concerned, we believe that sufficient time should be allowed to carry out further impact studies after the basic principles have been agreed upon, if necessary.

Liquidity

The Ministry of Finance of Finland supports the harmonisation of liquidity requirements. However, in order to be able to fully assess the proposals, quantitative data is needed especially on the aggregate amount of additional liquid assets that banks need to obtain in order to be able to meet the proposed requirements.

We believe that the requirements should be applied both at solo and consolidated level or, possibly, at the top consolidated level within each Member State instead of solo level. Consequently, impact studies should include both levels.

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With regard to the eligible liquid assets, we believe that the most appropriate approach could be to include all instruments eligible for central bank funding to the extent they are traded in an adequately liquid.

As far as net stable funding ratio is concerned, we are in favour of a framework allowing this ratio to be used as a monitoring tool rather than mandatory requirement, in order to better take into account the diversity of credit institutions in terms of their size and the degree of complexity of their business model. In addition, such an approach would avoid the difficulties of assessing the joint impact of two different mandatory quantitative requirements. The monitoring tools should be included in the Pillar II framework by requiring the supervisors to include the results from such monitoring in the annual overall risk assessment of the bank. Should the NSFR be implemented as mandatory requirement, from macro-economic perspective, treatment of household and corporate lending in maturities above one year should be carefully assessed based on QIS data.

Definitions of product categories differ on national level, and harmonized categories may be difficult to reach. More work maybe needed to find liquidity characteristics for e.g. deposits. Even then, room for interpretation is probably required to allow for national differences. To promote transparency and equal treatment, national specificities could be published. It should also be considered whether it is necessary to differentiate between different categories of deposits protected by the deposit guarantee as such distinction would significantly increase the administrative burden of banks.

Quality of capital

We welcome the review on the definition of capital. The proposed rules appear, however, to be unnecessarily complicated and, to some extent, inconsistent.

We believe that Tier 1 capital should be primarily defined by its general economic characteristics, not e.g. by its company law status nor ad hoc rules and limitations. This would allow an equal treatment for all types of bank. Simplifying the structure of Tier I would also ease the administrative burden of banks and supervisors and provide more predictability for the industry in planning their capital structure.

The definition of capital should ideally be limited to the economic characteristics of regulatory capital. Thus it should be adequate to ensure that all eligible capital instruments meet the following general requirements:

- subordination to other categories of regulatory capital in insolvency
- absorbing losses in going concern situations for the purpose of calculating the mandatory liquidation threshold as defined in national company law
- no obligation nor contractual incentives such as step-ups for any payouts of capital or profits in going concern situation,(apart from the members’ rights to redeem their shares in a co-operative bank in accordance with the national company law and provided that the bank continues to meet its capital requirements)
- annual payouts possible only from distributable profits (like dividends) and provided that the statutory capital requirements continue to be met
- no collateral pledged by connected parties
- paid in.

If these characteristics are ensured for every capital instrument, there should be no need to establish different sub-tiers within Tier I. The company law and accounting treatment of such capital instruments could be dealt with separately in the national law and accounting standards respectively as they are not linked to the function of the regulatory capital, which is to protect depositors and other creditors and absorb losses with regard to the mandatory liquidation requirements.

In particular, we do not see the rationale of prohibiting calls during the first five years nor of requiring write downs or conversion on a going concern basis, as long as the above criteria are met. Such requirements would be particularly inconsistent from the point of view that common shares are not subject to such requirements.

While we agree that the elimination of minority interest from the group capital is conceptually correct, its impact should be carefully assessed and an adequate transitional period provided. Also, we believe that it would correct to eliminate the minority interest only to the extent it exceeds the capital requirement of the subsidiary in question.

We are particularly concerned about requiring holdings in other credit institutions and insurance undertakings to be deducted from Tier 1 capital as for some groups in our market that would have dramatic consequences to their capital base. It is therefore essential to maintain the current rules in this respect.

Counterparty credit risk

We share the view that the observed shortcomings in financial institutions counterparty risk management during the financial crisis call for a reassessment of some features of the capital framework regarding counterparty credit risk. We also agree with the proposed qualitative requirements for banks' counterparty credit risk management. However, we are somewhat concerned about the danger of over regulation that might afterwards prove to be costly to the industry and other market participants, and ultimately to the real economy.

In particular, we are doubtful of the usefulness of setting very robust requirements for non-CCP-eligible products, as such OTC contracts serve the useful purpose of hedging risks that cannot be adequately hedged by standardised instruments. While we agree on a general level with the proposals to formulate structures that support wider use of CCPs for OTC instrument clearing, we believe that it should not be done at the expense of OTC products tailored for hedging existing risks in a safe and sound manner.

In any case, we emphasize the need for rigorous quantitative and qualitative impact studies before proposing to amend the current quantitative requirements for counterparty credit risks.

Leverage ratio

We are not in favour of Pillar I approach for dealing with excessive leverage. We believe that banks should be required to set internal targets for the growth of their key exposure classes and the supervisory authorities should be required to assess these internal targets and include this assessment in the overall supervisory review of the bank. In addition, a harmonised regulatory target ratio could be established, accompanied with specific supervisory measures such as a prohibition to distribute profits if the target ratio is not met. One of the drawbacks of a rigid Pillar I approach would be that it would unduly penalise certain credit institutions, which specialize in financing municipalities and other local authorities. It should be at least necessary to exempt such institutions from the requirements.

If a hard leverage ratio is considered necessary to prevent excessive balance sheet growth, we believe that the most appropriate approach would be to introduce a progressive, leverage-based capital requirement by introducing a multiplying factor for the overall capital requirement that would depend on the size of the balance sheet of the bank (plus the amount of contingent liabilities such as guarantees). An integrated model to deal both with excessive leverage and procyclicality is proposed in the annex.

If a separate hard leverage ratio is considered necessary, we think it should in any case be kept simple e.g. by comparing the amount of Tier I regulatory capital as currently defined to the sum of balance sheet total (including the book value of derivative contracts) and the nominal value of contingent liabilities such as guarantees.

II Detailed answers to the questions

SECTION I

Liquidity standards for credit institutions and investment firms

Liquidity Coverage Requirement

Q 1: While we support the idea of introducing a Liquidity Coverage Ratio, we are concerned about the complexity of the proposed liquidity framework and the resulting administrative burden in particular for small institutions. We also find it necessary to carry out proper quantitative impact studies both at solo and consolidated level in order to make a final assessment on the proposal. In particular, there must be reliable data on the impact of the proposed rules on availability and price of eligible assets if all institutions must simultaneously increase the amount of such assets in their balance sheet.

Q 2: We believe that central institution eligibility should be one but not the only criterion for eligibility. In particular, it should be ensured that only instruments traded in liquid markets are included. It could be considered whether some harmonised criteria could be introduced to define when a market is considered liquid and national authorities required to identify the instruments, which meet those criteria. We are somewhat concerned about defining eligible assets only by the type of instrument. If such list is included, it should be based on sufficient empirical evidence on the liquidity of the market of each instrument.

Q 3: We do not find it possible to answer to this question without appropriate quantitative impact assessments.

Net Stable Funding Requirement

Q 4: Our initial opinion is that it would be better to apply NSFR at least to begin with as a monitoring tool. In such a Pillar II type of approach each institution should be required to define its on NSFR based on the institution's size and specific business model and in accordance with general supervisory guidelines on the objectives and the required main characteristics of the ratio. The supervisory authorities should include the assessment of the adequacy of and compliance with the internal NSFR in their qualitative assessment on the overall liquidity risk and its management.

The use of NSFR as a monitoring tool could be supported by introducing it as a harmonised target ratio and requiring the competent authorities to take specific measures if the target ratio is not met and it is likely to jeopardise the overall liquidity of the institution. This approach would allow to make the target ratio a mandatory legal requirement at a later stage when there is adequate empirical evidence on the benefits and possible drawbacks of a harmonised NSFR.

Q 5: We do not find it well grounded to differentiate between lending for less than one year and over one year.

Q 6: We do not find it possible to answer to this question without appropriate quantitative impact assessments.

Completeness of legislative approach

Q 7: See our answer to Q 4. If there is going to be a harmonised mandatory requirement we support the use of technical standards.

Q 8: We do not see the need to any differentiation between different categories of deposits as far as they are covered by the deposit guarantee. We believe that such differentiation would be likely to unnecessarily increase the administrative burden for at least small banks without corresponding benefits.

Scope of application

Q 9: We agree with the Commission's suggestions.

Q 10: Solo requirements should apply only to credit institutions and 730 K investment firms. The scope of consolidation should not be different from the general scope of consolidation laid down in the CRD.

Q 11: Simpler rules could be considered for investment firms.

Treatment of intragroup transactions and commitments

Q 12: We believe that it would be consistent with the concept of solo supervision to treat intra group items as external items in the absence of any explicit commitments. However, we would like to emphasize the link between this issue and the general issue of asset transferability, which we think should be harmonised in the context of the crisis resolution initiative. We also stress the importance of carrying out impact assessments both at solo and group level.

Supervisory responsibility for branch liquidity

Q 13: We find it extremely important to harmonise the rules regarding the supervision of liquidity of branches. In our opinion, the roles of home and host authorities should be defined in more detail, based on the principle that the main responsibility lies with the home authority. However, there should be specific provisions regarding host supervision. Such provisions could include:

- explicitly allowing the host authority to prohibit the branch to continue its business if the host authority has not received adequate information concerning the compliance by the institution with liquidity requirements
- possibly requiring credit institutions to set up contractual liquidity arrangements (such as a liquidity facility or depository of liquid securities) in each host country by which a representative of the branch has the sole right of disposing the assets subject to the contract).

Monitoring tools

Q 14: We are in favour of a Pillar II type of approach where the monitoring tools are used to make an overall assessment of the management of liquidity risk; instead of fully harmonised rules we believe that only the main characteristics of each tool should be harmonised, in order to take into account different business models and avoid excessive administrative burden.

Q 15: We are not in the position to provide answer.

SECTION II

Definition of capital

Q 16: We are in favour of eliminating Tier III and, in principle, also eliminating the difference between upper and lower Tier II but we do not think that the distinction between going and gone concern is the appropriate one as in jurisdictions like Finland where there is no separate liquidation threshold for banks (apart from the minimum capital requirement itself) this distinction is meaningless.

Q 17: The definition of capital should ideally be limited to the general economic characteristics of capital. Thus it should be adequate to ensure that all eligible capital instruments meet the following general requirements:

- subordination to other categories of regulatory capital in insolvency
- absorbing losses in going concern situations for the purpose of calculating the mandatory liquidation threshold as defined in national company law
- no obligation nor contractual incentives such as step-ups for any payouts of capital or profits in going concern situation,(apart from the members' rights to redeem their shares in a co-operative bank in accordance with the national company law and provided that the bank continues to meet its capital requirements)
- annual payouts possible only from distributable profits (like dividends) and provided that the statutory capital requirements continue to be met
- no collateral pledged by connected parties
- paid in.

If these characteristics are ensured for every capital instrument, there should be no need to establish different sub-tiers within Tier I. The company law and accounting treatment of such capital instruments could be dealt with separately in the national law and accounting standards respectively as they are not linked to the two basic functions of the regulatory capital, which are:

i. to absorb losses with regard to the mandatory liquidation requirements in order to allow the bank to continue its business in spite of losses;
ii. to ensure that the claims of depositors and other creditors are met in the case of liquidation..

We do not think that mandatory write down or conversion is a necessary element in the light of the above objectives as far as the above mentioned general criteria are met and there is no separate liquidation threshold for banks.

Also, we do not see the rationale of prohibiting calls during the first five years as long as the above criteria are met. Such requirement would be particularly inconsistent from the point of view that common shares are not subject to such a requirement.

Q 18: See Q 17 above.

Q 19: While we agree that the elimination of minority interest from the group capital is conceptually correct, its impact should be carefully assessed and an adequate transitional period provided. Also, we believe that it would correct to eliminate the minority interest only to the extent it exceeds the capital requirement of the subsidiary in question.

Q 20: We are unable to see the rationale of prohibiting calls as long as the general definition of capital is met (see Q 16 above).

Q 21: We see merit in further examining the possibility of requiring all unrealised valuation differences (above historical cost) to be eliminated as it would significantly reduce the procyclicality of the capital framework.

Q 22: We believe that the quantitative ratios should be adjusted if the impact studies indicate that the proposed changes would have a significant impact to the maximum exposures allowed to be held by banks. This does not apply to large exposures only but also to qualified holdings in non-financial undertakings (Art. 120 of the CRD)

Q 23: We are not convinced about a mandatory role of contingent capital. In particular, we see significant legal problems from the legal certainty point of view if the conversion is subject to supervisory discretion.

Q 24: In principle, we are not in favour of any retroactive legislation.

SECTION III

Leverage Ratio

Q25: Ministry's view is that the purpose of a leverage ratio should be to provide a backstop and supplement the risk-based capital requirements. As the crisis has shown, there are many uncertainties and risks related to the correct modelling and estimation of risk-based capital adequacy. There is also a tendency that large banks are more leveraged than small banks, which might be due to moral hazard and therefore leverage ratio is needed. The Ministry sees that it would be beneficial to integrate leverage ratio with countercyclical measures and see it more as a Pillar 2 –tool.

Q26: Ministry's view is that the most preferable going concern capital for leverage ratio would be that of core Tier 1 capital. The most reliable way to measure actual leverage is to include in the nominator only shareholders equity and retained earnings.

Q27: The Ministry prefers the gross positive fair value of a derivative contract (book value) as it enhances international comparison, reduces administrative burden and captures better the actual leverage.

Q28: The Ministry sees that credit derivatives should be included according to their fair value, i.e. not the full potential exposure as to be consistent with other classes of derivatives (compare options pricing theory)

Q29.: Leverage ratio could depend on the phase of the economic cycle. The Ministry has provided an integrated model in which the leverage ratio depends on the phase of the credit cycle.

Q30: The calibration of the leverage ratio depends obviously on the chosen variables. The Ministry encourages an empirical exploration of actual leverage ratios across the banking sector.

SECTION IV

Counterparty Credit Risk

Q 31: According to the information provided to the Ministry, the financial institutions in Finland use mark-to-market method for calculating EADs for OTC derivatives. In general, the method has worked well for small, mid-size and large banks in Finland. Our opinion is that CVA charge would create additional complexity to EAD calculation if it is applied also to mark-to-market method. We consider that mark-to-market method should be maintained as simple as it is now.

Q 32: To our knowledge, there is currently no single bank or investment firm in Finland using IMM for EAD calculations. Therefore, we have no experience for commenting Alpha issues.

Q 33: Referring to answer of question 31, our opinion is that the current mark-to-market method works well. We are not in favour of adding complexity to EAD calculations, including multiplier for the large financial institutions or unregulated financial firms.'

Q 34: We find that the suggested measures regarding collateral and margin requirements could strengthen the current framework. In particular, larger initial margining and adjusting the margin period should be covered by new standards.

Q 35: We are of the opinion that the appropriate risk weight for CCP exposures meeting the defined stricter requirements and standards should be equal to zero weight as in the present framework.

The Ministry finds that the higher requirements concerning bilateral OTC transactions should portray their higher risk exposure and not necessarily merely the type of the transaction or even the type of counterparty at hand. Therefore, the proposed changes should thoroughly cover the management requirements for bilateral counterparty credit risk as well. We have a feeling that the focus of further regulatory measures is currently partly too strongly set to promote CCP clearing at the expense of bilateral clearing where the proper collateralisation can also be used in a safe and sound manner.

In general, we support measures that add incentives to use CCPs and shift eligible contracts in central clearing in order to reduce the counterparty credit risk.

Q 36: The Ministry sees that it is important to build a common European set of legislation and applicable measures that support infrastructures that stand and operate as a solid ground for managing systemic risks, and as such, we find that CCPs should face high standards of risk processes management and prudential requirements given the fact that CCPs can be a source of such risk in certain situations. Therefore, strong standards and requirements are called upon to ensure safe and robust functioning of CCPs. We give our support for the work the Commission Derivatives and Market Infrastructures Member States Working Group currently does to prepare an EU proposal in these issues. In addition, it is important that the EU standards for CCPs should fit for the global requirements at international capital markets, and therefore it is absolutely necessary the EU standards are prepared in close cooperation with the relevant CPSS-IOSCO working group.

Q 37: The Ministry fully supports the further development of enhanced counterparty credit risk requirements and more thorough and rigorous stress testing practices both in CCP and bilateral clearing taking into account not only historical calculations, but also models that tackle unforeseen events.

SECTION V

Countercyclical measures

Part 1 Through-the-cycle provisioning for expected credit losses

Q38: Ministry’s view is that the proposed ECF-method could increase procyclicality and there are substantial uncertainties concerning the estimation of cash flow freely. It seems that the proposed model could be very volatile depending on the bank’s (mis)estimations.

The incurred approach is obviously not performing particularly well either.

IRB expected loss should be studied further; nevertheless there are some possible issues that could be problematic (see next question).

Q39: The IRB expected loss –approach has definitely some problematic issues. For advanced IRB banks the general provision would depend on the estimation of PD and LGD. If the estimators are not biased, the cumulative general provision will be zero over the cycle. As the cycle cannot be forecasted accurately by definition, the general provision becomes effectively a random variable. Is it desirable to have such a random provision on P&L?

The ministry sees it obvious that if such general provision is to be implemented it should not be counted as capital.

Part 2 Capital buffers and the cyclicality of minimum requirements

Q40: The Ministry agrees on the proposed dual structure of the capital buffer. We find that the countercyclical buffer should depend on some exogenous macro variable, e.g. deviation of credit growth from its historical geometric average, which would determine the actual supplementary buffer above the current regulatory minimum. Ministry also encourages the possible integration of leverage ratio and capital buffer into one simple metric that could solve the two separate problems at hand.

Q41: The restrictions should include ordinary dividends and share buybacks.

Q42: The time limit targets should be set by the supervisor on a case-by-case basis.

Q43: The Ministry sees that the most appropriate macro variable would be the national credit growth and its deviation from its geometric average through the cycle.

Q44: Capital buffers based on macro variable would be better than through-the-cycle provisioning.

Q45: The Ministry does think that capital buffers based on macro variable could be implemented already now, as the cyclicality of the minimum requirement is generally agreed.

SECTION VI

Systematically important financial institutions

Q46: Ministry's view is that the SIFI can be identified primarily through its balance sheet size. The Ministry does acknowledge the interconnectedness issue as well, but finds it very hard to quantify therefore identify SIFIs in such an approach.

The Ministry sees that the realistic way to mitigate risks with regarding SIFIs is that of progressive capital requirements according to the balance sheet size of the institution.

Q47: SIFI should not be defined solely through its absolute size, as SIFI is primarily a national phenomenon. Therefore when constructing prudential measures for SIFIs, one must relate the criteria that define SIFIs to a national context.

SECTION VII

Single rulebook

Q 48: We do not see the need to allow any "gold plating".

Q 49-52: We are open to possible amendments as far as there will be no mandatory LTV for residential mortgages below 70 per cent.

ANNEX

In this annex, Ministry of Finance Finland provides you with 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 problematics 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 his 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:

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

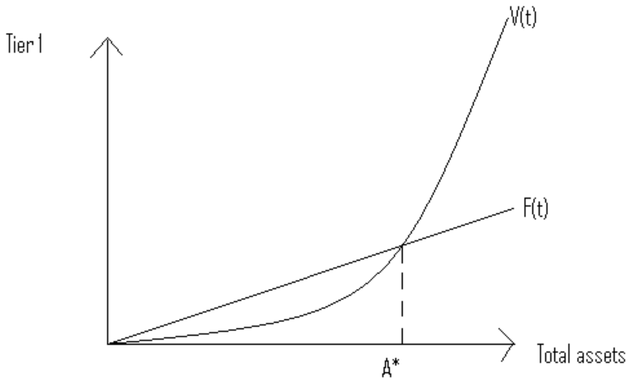
$$F(t) = lA(t)\left(\frac{C(t)}{\overline{\overline{C(t)}}}\right)$$

The countercyclical factor is defined through:

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

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



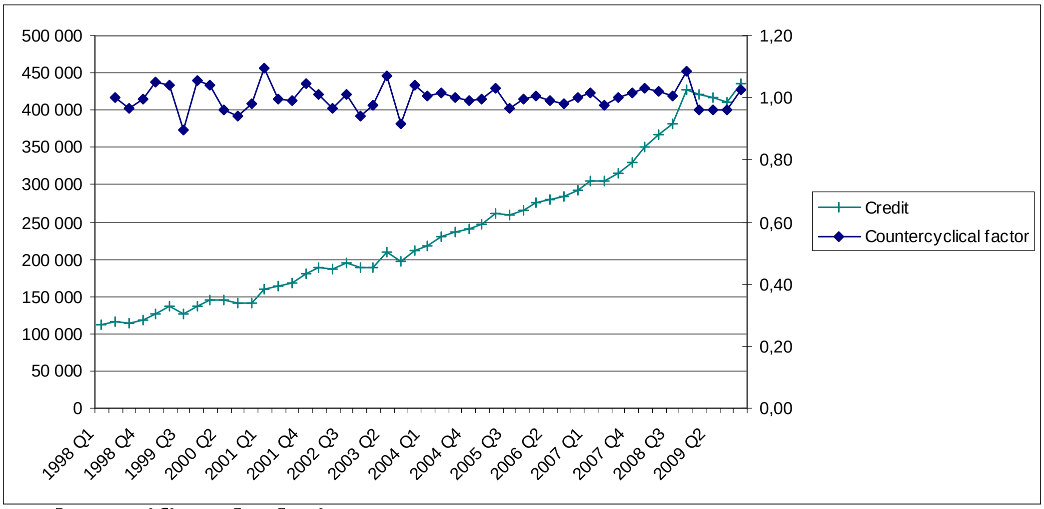
- F(t) is the required supplementary amount of Tier 1 –capital for small and middle sized banks and V(t) is the required supplementary amount of Tier 1 –capital for large banks
- A(t) is the disclosed value of all assets (including the book value of derivative contracts) + the total nominal value of 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: 221billion 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~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*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.

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