Harmonising Banking Regulation:  
The "David and Goliath" Game Behind the Curtain

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ABSTRACT

In recent years, a strong tendency towards international harmonisation of banking regulation can be observed. In this paper, we investigate some of the problems involved in the corresponding strategic interaction between countries. Technically, we show that in a game-theoretic setting with two countries and a sequential time structure, typical regulatory games involve both a cooperative equilibrium which represents international cooperation in regulatory projects and a non-cooperative equilibrium which rationalizes the late withdrawal or non-cooperation of large countries. We interpret this constellation as being representative of what has happened in the context of capital adequacy regulation (Basel II) or anti-money-laundering legislation. We conclude with a discussion of possible solutions of changing the decision mechanisms of supranational regulatory bodies.

Key Words: Banking Regulation, Harmonisation, Reputation, Basel II

JEL Classification: G28, L51, K23

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1. Introduction

In the last ten years or so, the role of international organisations in regulating financial markets has dramatically increased and currently embraces a wide range of aspects. Capital adequacy rules, anti-money-laundering regulation, systemic stability issues, accounting rules and tax issues are now being discussed within the Organisation for Economic Co-operation and Development (OECD) and the Financial Action Task Force (FATF), the Basel Committee on Banking Supervision and its securities dealers’ counterpart, the International Organization of Securities Commissions (IOSCO), the Financial Stability Forum (FSF), the International Accounting Standards Board (IASB) and the International Monetary Fund (IMF). The trend towards a harmonised regulatory framework elaborated within and sometimes even monitored by international organisations is commonly justified by the globalisation of financial markets. The implicit notion, thereby, is that global financial markets must be regulated by a common set of rules (see, e.g., Basel Committee on Banking Supervision (2003)), a position which has also found its pronounced critics (e.g. Zimmermann (2001))².

Over the years, the mandate of these organisations has been drastically extended. Some years ago, an organisation like the OECD co-ordinated macro-economic issues and commented on structural and micro-economic topics, and the Basel Committee on Banking Supervision issued capital adequacy recommendations only for internationally active banks. Today, these organisations have assumed broad legislative functions and they explicitly demand that national laws contradicting their recommendations be adjusted. Since legislative functions must be complemented with sanctions to give the proper incentives for countries to follow the recommendations, these organisations have taken over judicial tasks as well. The policy of the OECD, the FATF and the FSF of issuing black lists, imposing sanctions or simply the threatening to disregard a country’s interests in future negotiations are de facto clearly judicial tasks.

The process of harmonising national laws and regulations through international organisations typically involves two quite distinct phases with different bodies involved and different decision making processes:

² An individual country may choose to regulate a particular service or issue more strictly to increase the reputation of its financial centre. Such efforts are undertaken by a country alone and do not require international harmonisation. This aspect of regulatory initiatives is not the subject of this paper.
• In a first round, national delegations – specialists or technical experts – discuss the recommendations strictly from their specific regulatory point of view. Industry comments are welcomed, but there is no mechanism to ensure that industry interests are reflected in the resulting recommendations. Since national regulatory agencies often interpret their mandate as to maximise the “safety and soundness” of the national banking and financial system, the more limited focus on regulatory or other, specific issues tends to exaggerate the benefits and de-emphasize the costs of regulation, leading to an outcome which is sub-optimal from a welfare point of view.

• In a second round, the political instances (including the interest groups) of the countries are involved when discussing the implementation of the recommendations in the respective national laws. These decisions are guided either by national strategic interests of increasing a country’s competitive standing or at least by a broader focus on the benefits and costs of regulation.

Generally, however, there is no mechanism whatsoever to guarantee that the specific national regulatory interest negotiated in round 1 and the general economic interest of each individual country relevant in round 2 coincide. A country may, on the technical level, favour a set of harmonised rules and later on, on the political level, renounce from its implementation. As far as we are aware, the literature has not analysed this potential conflict. We want to investigate and model the involved trade-off between the goals of financial regulation on the one hand and the goals of strategic competition policy on the other.

The issue is of utmost political relevance as the revision of the New Basel Capital Accord – better known as “Basel II” – shows. The Basel Committee on Banking Supervision has, under its US Chairman, elaborated new and more risk sensitive capital requirements. Yet, shortly before publication of the final recommendations, the US authorities have announced that they will not apply the Basel II requirements to all banks, as has been the understanding in all participating countries, but only to about a dozen of internationally active US banks\(^3\). This announcement illustrates the potential conflict between the two rounds of negotiations mentioned above\(^4\).

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\(^3\) As John Hawke, US comptroller of the currency, put it: “We are not going to disregard the comments we receive in our rulemaking and simply rubber stamp Basel... We don’t intend to approve final rules until we are comfortable we got it right.” (“US regulator questions Basel timetable”, Financial Times, June 17, 2003).

\(^4\) The conflict between the first and the second round is aptly described in “McDonough under fire on Basel talk” (Financial Times, May 23, 2003): Harald Benink, Professor of Finance at University of Rotterdam is quoted to have said: “Here we have a person who has been the public face of Basel II process and with an agreement in sight, he steps down. It’s amazing.” Barney Frank, leading Democrat on the House financial services committee, was rather annoyed than amazed. He said: “I was unpleasantly surprised when our committee’s inquiries demonstrated that there is no transparent, coherent process for formulating American policy.”
In this paper, we want to investigate the rationale behind such behaviour: Why do the US at least partially withdraw from the former consensus by narrowing the field of application of Basel II?

The contradicting US position in the Basel II debate is the most widely noted, but not the only example which can be given. Studying the harmonisation of anti-money-laundering measures reveals similar conflicts. The US have always been one of the most active members in drafting international standards against money laundering, particularly within the FATF. In 1997, this organisation harshly criticised the US for having excluded non-banking financial institutions from anti-money-laundering rules, particularly from due diligence duties and reporting requirements. Even today, identification of beneficial ownership and of determination of the source of funds is restricted to private banking and only applies to funds held for non-US-persons. The regulation clearly violates the international standards which the US have strongly endorsed (Pieth, Aiolfi (2003)). More recently, the Financial Crime Enforcement Network (FinCEN) published a note announcing that the US have postponed the decision to implement FATF recommendation 40 requiring financial institutions to include information on the remittent like name and account number in the transmittal orders (FinCEN (2003)), although within FATF, the US had supported this recommendation.

Another example highlights the importance of the issue: In 1994 the UK has introduced the obligation for financial institutions to establish the identity of their customers, maintain records, report suspicious transactions and educate employees. However, in May 2003 the FSA acknowledged the inadequacies of the UK system and considered “whether to require firms to take action through a current customer review (“CCR”) to deal with the money laundering risks” arising from the absence of identification checks for customers who opened accounts before and from inadequate identification standards since 1 April 1994. Based on a report (FSA, 2003), the FSA abandoned the project of an industry-wide requirement to check on the identity of existing customers.

A more subtle behaviour of a country can consist in implementing agreed-upon recommendations and simultaneously introducing additional national measures offsetting the effects of the international recommendations. An example is suggesting and implementing an exchange of information in tax matters with at the same time exempting beneficial owner identification for specific products such as, e.g., trusts.
One may be tempted to argue that these examples are exceptions rather than results of rational behaviour. Indeed, too often such behaviour of large countries hosting an important global financial centre (but typically not of small ones) is reported by the media\(^3\) as the exception that proves the rule. We argue, however, that large countries breaking the consensus is a result of rational behaviour and, therefore, can be seen as the expected outcome in the current international setting.

For small countries the issue is of obvious relevance. In the current political discussion in Switzerland, two positions have been put forward. Maurer (2002) argues that the existing mechanism to harmonise regulation does not give enough incentives – in fact it creates even disincentives – for the large country to comply. The author suggests that the smaller country can defend its interests by conditioning the implementation on the large country’s commitment to do the same.

In a response, Weber (2003) argues that in general negotiations can efficiently resolve potential conflicts between the different national regulatory entities and between the regulatory and economic authorities of each country. In his view, the very process of negotiating is aimed at reconciling partial (regulatory) interests and national (economic) interests of the countries involved.

Maurer made his argument with regard to a particular situation which may not be readily generalised, and Weber argues that the differences can be resolved in the process of negotiations on the basis of an implicitly assumed harmony in the goals of regulation of all countries. None of the approaches is based on a theoretical background. The issue must, therefore, be analysed more systematically.

The rest of the paper is organised as follows. Section 2 presents the model. We will show that international negotiations on banking regulation can typically be characterised by two different equilibria, a cooperative and a non-cooperative one. Which equilibria is obtained depends on the magnitudes of the decisive parameters, the competitive advantage a country can gain by not following the requirements on the one hand and reputational costs on the other. We then suggest a possible solution to avoid the non-cooperative equilibrium by creating incentives that give rise to the socially optimal solution. In section 3, some conclusions are drawn from the analysis.

\(^3\) The criticism of smaller EU countries on France for breaking the stability pact for a third time in a row ("Deficit row threatens eurogroup", Financial Times, July 16, 2003), and the EU position on the IAS derivatives ruling ("European Commission Attacks Accounting Rule on Derivatives", Wall Street Journal Europe, July 15, 2003) are most likely other examples, although we do not have sufficient background information on the negotiation round. The issue is also relevant in other areas than banking regulation (see, e.g., "Why some environmental agreements work and others don’t", The Economist, April 19, 2003).
2. The Model

2.1 Structure

We model the process of strategic interaction in the context of international negotiations of banking regulation. We use a sequential game setting with two countries, three decisions or time periods and two strategic alternatives per choice. The following assumptions are made:

1. There are two countries, a large one denoted by $L$ and a small one denoted by $S$. We define "large" and "small" in terms of the reputational costs a country has to bear if it renounces to participate in an attempt to harmonise rules in an international context. The large country (ceteris paribus) has small reputational costs, and vice versa for the small country. A country which vetoes a decision, steps out of the negotiation room or refuses to implement the rules upon which a consensus was agreed faces reputational costs in terms of possible sanctions, retaliation measures and "black lists" policies, etc. Such costs are not only affecting individual banks or the financial sector of the country but may well have a larger impact, for example in the form of a disregard of the nation's interests in future negotiations. A small country is defined as a country for which the sanction, retaliation or exclusion from future negotiations has a relatively strong impact on the country's economy. The threat of sanctions will, therefore, be taken seriously. A large country is, then, defined as the country for which the impact of sanctions – and therefore the threat of sanctions – are much less important or even irrelevant. Whereas a large country can withdraw from ongoing negotiations at low or even zero reputational costs, a small country typically cannot afford to do so. Therefore, the reputational costs are asymmetric; they shall be denoted by $RC_L$ and $RC_S$.

2. We consider cases where international harmonisation occurs because both countries gain from it. If only one country implements new rules, her competitive position worsens ceteris paribus and the other country gains in competitiveness. For reasons of simplicity, we define the first country's loss as being equal to the second country's gain as business opportunities move from one country to the other. The competitive benefits (or losses) are then denoted as $CA$ and $-CA$, respectively.

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6 That $S$ may also stand for Switzerland is a linguistic coincidence, but a symptomatic one.

7 By assuming the competitive benefit of one country to be equal to the competitive loss of the other one, we exclude the situation in which a country defers because of cost-benefit reasons. In such a case, the competitive benefits and losses would not be equal. The model and the conclusion, however, do not depend on this assumption.
For obvious reasons we assume⁵:

A. \( RC_S \gg RC_L > 0 \)

B. \( CA > 0 \)

We model the strategic interaction as a three-step game between the two countries:

**Decision 1 (Country L):** First, on the level of technical negotiations within the international organisation (round 1, see Introduction), L decides whether it endorses the harmonisation of a regulation (+). Without participation of L (-), there will be no agreement; the payoffs of both countries are normalised to 0. S will not pursue the issue on its own, since there is no gain to be expected from doing so. If L supports a specific recommendation, S will decide – still on the technical level – whether to follow L or whether to step back from the negotiations.

**Decision 2 (Country S):** Second, S has the choice of either accepting L’s offer and entering into negotiations and implementing (+) or leaving the floor and exiting the game (-). If S indeed decides to renounce, L will step back (payoff 0) and impose sanctions on S. The small country will carry the reputational costs \( RC_S \); the payoffs are \((0, -RC_S)\).

**Decision 3 (Country L):** Third, L has one more option⁶. If both countries have agreed on the recommendation or regulatory intervention on the technical level, and S has already implemented the recommendations in her own laws, L now decides (in round 2, see Introduction) whether to implement the recommendations (+) or not (-). If L follows S in implementing, the payoffs are \((1,1)\). This is simply to model the fact that there is a social gain in successful harmonisation, i.e., by cooperating both countries improve relative to \((0,0)\). However, if L decides not to implement, then S faces the competitive disadvantage (-CA). L, of course, gains in competitiveness, but looses reputational costs; her payoff is \((CA-RC_L)\).

The decision tree with corresponding payoffs is shown in graph 1.

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⁵We make the standard assumption of an information structure with "common knowledge". The payoffs (i.e., reputation costs and competitive advantage) are known by both countries. The large country knows that it is large and, vice versa, for the small country etc.

⁶The additional option of “opting-out” of L is motivated by the assumption of asymmetric reputation costs, see Assumption 1.
2.2 Cooperative Equilibrium

As usual, the sequential game is solved by backward induction. Obviously, there are (at least) two equilibria. We use the terminology of a "cooperative" and a "non-cooperative" equilibrium although both are based, of course, on non-cooperative game theory. Which of the equilibria will be realized depends on parameter constellations. Especially the relation between reputational costs and competitive advantage is crucial, as will be shown. Therefore, this is not an example of multiple equilibria.

The conditions for a cooperative solution — the one WEBER proposed — are readily identified:

For L:

\[ 1 > CA - RC_L \Leftrightarrow RC_L > CA - 1 \quad (1), \text{ and} \]

for S:

\[ 1 > -RC_S \quad (2) \]

must hold.
Graph 2 illustrates the path representing the cooperative equilibrium. This equilibrium is characterized by the small country accepting negotiations in Decision 2 and the large country implementing in Decision 3.

Obviously, condition (2) always holds. Due to assumption $A_r$, $-RC_S$ is always negative and, therefore, smaller than the gain country $S$ may get from the optimal cooperative solution (1).

Condition (1), however, is not automatically fulfilled. $L$ only has an interest to follow the recommendations she endorsed in the negotiation phase when the reputational impact is larger than the difference between the competitive gains to be expected from not complying (CA) and the gains from the cooperative solution (1). Intuitively, $L$ will not follow the recommendations previously endorsed whenever she estimates that the gains in its competitive position net of the negative reputational impact are larger than the gains from the cooperative solution. Reliance on the time consistency in $L$’s behaviour and, hence, in the efficiency of the corresponding negotiations is not always justified.

GRAPH 2: Cooperative Equilibrium
2.3 Non-cooperative Equilibrium

The non-cooperative equilibrium is characterized by the small country entering negotiations in Decision 2 and the large country withdrawing from implementation in Decision 3. The path corresponding to the non-cooperative equilibrium is highlighted in Graph 3.

The conditions for an outcome with S agreeing to negotiations in Decision 2 and L withdrawing from negotiations in Decision 3, are:

For L: \( 1 < CA - RC_L \Leftrightarrow 1 + RC_L < CA \) (3)

For S: \(-CA > -RC_S \Leftrightarrow RC_S > CA\) (4)

Condition (3) just states that the examples quoted in the Introduction are neither a coincidence nor are they irrational; they simply form part of the negotiations on harmonised rules within international organisations. Whenever the large country considers the competitive gain of withdrawing as exceeding the (absolute value of) the reputation costs and the foregone benefits from a cooperative solution, it is economically rational for L to reject implementation of the recommendations. Condition (4) tells us that even S can boycott a cooperative solution. However, this would be exceptional. The reputational costs for a small country are large; only if the competitive advantage she looses would be even higher than the reputational costs, the country may be willing to accept the negative reputational impact.

Summing up, we have demonstrated that the game analysed here can be characterised by two possible equilibria. Whether a cooperative and socially efficient solution or a non-cooperative and inefficient solution will be chosen depends crucially on the quantitative relations between reputational costs and competitive advantages. Under conditions (1) and (2), the cooperative solution will arise with both countries ending up with socially optimal payoffs. Under conditions (3) and (4), however, a non-cooperative solution arises with the large country withdrawing from agreements already achieved on the technical level. We interpret the examples given in the Introduction as a realisation of such a non-cooperative equilibrium. These examples can be seen as the outcome of individually rational behaviour where reputational costs and competitive gains are such that conditions (3) and (4) hold.
2.4 Extending the game: A theoretical solution – and a politically feasible one?

In the non-cooperative equilibrium, a cooperative solution is blocked because country L redefines her position after country S has already implemented. In this type of situation, game theory typically suggests to adapt payoffs such that adequate incentives for reaching a social optimum arise. There are two ways to assure that the non-cooperative equilibrium would be dominated by the cooperative one. First, the international organisation could tax away the competitive advantage from the large country, and second, the international organisation could assure that the reputational costs for country L would drastically increase up to the point where condition (3) no more holds. But none of these two solutions seems politically feasible. In the model this is reflected by the assumption that both the competitive advantage and reputational costs are exogenous parameters where there is no endogenous choice over their size.
Our analysis, however, suggests another solution or approach to the problem. Recall that asymmetry between negotiating countries is modelled via asymmetric reputational costs in line with an asymmetric game structure. Besides changing payoffs to fight asymmetry, you can, therefore, also modify the rules of the game. Assume S is allowed to rethink her decision to implement after L has moved the second time in Decision 3. If S sticks to the implementation, the payoffs remain on \((CA-RC_{L, S}-CA)\). However, if S does not stick to implementation, neither country follows the international recommendations and the payoffs are \((0,0)\) – just as if S had turned down L’s offer to enter negotiations in the first round of Decision 2. Then the incentives for L to refrain from implementation would be removed.

In practice, it seems that S cannot simply take back its implementation, and L would certainly not allow her to do so. Even if S, in an extremely complex and unlikely process, offsetted the already initialized national legislation, this would only be of limited benefit to the banking industry due to its sunk costs in the form of resources already mobilised for implementation. However, the cooperative equilibrium would be obtained if S adopted the following strategy: At Decision 2 – when she decides to endorse the recommendations or not – she conditions her implementation on the implementation of the requirements by L which decides upon her position in the following step. In other words, there is a kind of ratification process in which the laws are only passed when and once both countries have agreed to implement the recommendations in an equivalent way. In such a way, L knows that by not implementing, S will not ratify and the final payoffs will be \((0,0)\). L’s incentive to contradict on political grounds would vanish. By having the option of non-ratification in the last round, S could credibly threaten to force both countries to the status quo payoffs, thereby forcing L to behave cooperatively in the round before. The corresponding decision tree for the extended game is shown in graph 4.

In the context of Basel II, one could defend the US position by arguing that the US proposal is more cost-effective. It may then be in the interest of the small country to copy the approach of the large country. As far as the US approach is interpreted as a compromise between complete compliance with and complete rejection of international standards, this aspect is not explicitly modelled. However, the main results of our paper in terms of recommendations to the small country would not be significantly impacted.
GRAPH 4: Extending the Game
3. Conclusions

With a simple and tractable model we have shown that it can be rational for countries which cannot be severely sanctioned to withdraw from their “pre-commitment” made during international negotiations. Such countries can be better off by doing so and disregarding the common interest which originally motivated the negotiation of internationally binding rules. On the contrary, countries facing severe reputational costs do not have such an option. This asymmetry is a flaw or obstacle in the working of the harmonisation of rules. Asymmetry really is at the heart of the given coordination problem.

Several conclusions can be drawn from the analysis.

First, there is additional insight to gain from a game-theoretic approach to international harmonisation of regulation. Looking at the corresponding negotiations from a perspective of strategic interaction can improve our understanding of empirical phenomena. We argue that observed behaviour both of large and small countries must be regarded as a result of some type of strategic optimisation. Isolating the pure net value of harmonisation is a delicate task where ignoring strategic considerations would miss the point.

Second, we have suggested that “pre-commitment” by the small country could be a way to induce the large country to choose the cooperative solution. If it does not, then the small country would at least not be worse off than before. Whether such a proceeding is politically feasible remains to be seen. It could be in the interest of international organisations to in fact favour such a procedure. The withdrawing of large countries which are prime movers of international organisations is a significant reputational risk for the whole project of harmonising rules. One of the problems, however, arises from the impossibility of international organisations to shield smaller countries against sanctions in cases where none of the countries implement. On a more fundamental level, we suggest that supranational organisations should also look at international negotiations on harmonisation from a strategic interaction perspective.

Third, the model points at a flaw in today’s system of international harmonisation of banking regulation. The system itself creates -- under asymmetric reputational costs – an incentive for large countries to renounce. In our view, international organisations should be interested in mending this asymmetry. If they want to resume an independent status, the process of strategic interaction must be completed by a mechanism which produces the proper incentives for large countries to comply.

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10 Some international organisations are getting an increasingly bad reputation, at least in small countries, of being an instrument to foster policies to deteriorate the competitive positions of small countries for the benefit of large ones, e.g., BORDNER (2003).
Fourth, we demonstrated that the type of equilibrium (cooperative or not) that will be chosen depends on the relations between the parameters for competitive advantage and reputation costs. Of course, these parameters are extremely difficult to quantify in the concrete case in practice. Therefore, it would be hard to forecast whether negotiations on a specific issue will end up in a cooperative or in a non-cooperative equilibrium. But this does not constitute a major problem in the light of the suggested solution in section 2.4: By extending the game in the described way, i.e., by changing the decision mechanism within international organisations to overcome the asymmetry between reputation costs of large and small countries, the cooperative (and efficient) equilibrium will result for all parameter constellations. For the suggested extension to work, it is not necessary that reputation costs and competitive advantages be exactly quantified and known.

Of course, our model is rudimentary in many respects. We use it to illustrate a point that looks promising to us. It would be interesting to check robustness along several dimensions. For example, it is not clear a priori to what degree our results and conclusions would have to be modified in a multi-player setting where international negotiations are not modelled via a game with one (representative) large and one (representative) small country. Moreover, analysing mixed strategies might constitute an interesting extension. Further research is clearly needed.
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