Effects of inappropriate financial regulation

Patrick Jomini[1]

Abstract

With the recent financial crisis and discussions over the Basel III framework, regulation of banking systems is likely to be modified, if only to address on-going changes in banking technology. In the aftermath of the crisis, there is a risk of 'regulatory overshot', that is, the risk that heavy regulation might result in unnecessary costs in the form of additional administrative costs, excessive barriers to economies of scale, scope or innovation, or the creation of rents. An additional risk is posed by the apparent increase in concentration in banking sectors in many economies since the financial crisis. All this could increase the cost of capital to the rest of the economy and impede economic growth. The objectives of this paper are twofold:

- To assess the possible effects of inadequate regulation on financial sectors

- To estimate the possible effects of these regulations on the rest of the economy.

Introduction: Regulation and the financial sector

The financial sector provides some of the 'oil' required for an economy to achieve its potential growth – it is designed to improve the productive potential of the whole economy. Financial regulation is designed to improve the way in which financial markets function by increasing financial stability, protecting consumers, improving information and limiting risk. It operates, among other ways, through prudential regulation and supervision, by regulating disclosure for complex financial products, by defining accounting standards (including for off-balance sheet and securitisation activities), etc. Successive reforms of financial regulation over the past thirty years have improved access to credit for business and households, by decreasing borrowing costs and increasing the variety of financial products available. Regulation has also influenced the structure of banking sectors.

Regulation brings benefits, but also involves costs. For example, reducing risk might limit financial innovation, inhibit some borrowing, or increase operating costs for the industry or for borrowers. Some of these costs – those supported by the industry being regulated – are referred to as the *regulatory burden*.

The costs of regulation can go beyond those supported by those directly affected by the regulation – the industry being regulated or its customers: there may also be costs in the broader economy, for example, when a regulation reduces innovation that would otherwise improve the functioning of the economy.

In some cases, costs can exceed the economic benefits that could be expected from the regulation. It is therefore essential to optimise regulation by weighing its costs against its benefits.

The objective of this paper is to illustrate the orders of magnitude of the costs of inadequate regulation and concentration in the baking sector. Sectoral costs can take the form of additional resources required to comply with regulations or increased cost of capital when financial innovation is stifled. In addition, industry concentration can create rents that exceed any gains economies of scale that might be achieved through increased concentration.

The combination of added costs and rents is likely to increase the cost of capital to borrowing businesses and consumers above what it might otherwise be. A recent study by the Australian Productivity Commission (2009) estimated that the economy-wide effects of increasing the cost of capital to borrowers could be substantial.

Section 1. Cost and efficiency effects of regulation

Regulations in financial services bring a complex set of costs and benefits. Each country should have a substantial degree of freedom in shaping its own regulations in order to achieve what it feels to be the best cost-benefit balance, taking into account its risk aversion, preference for the present, etc. What is required is "*not just 'more' or 'tougher' regulation, but smarter requirements combined with better-funded supervisors, independent of industry and political pressures. Banking is already heavily regulated and yet proved vulnerable to a systemic shock in some significant jurisdictions because supervisors had limited information and resources, while regulation itself created incentives to transfer risk outside the regulatory boundary while diluting the need for creditors and shareholders to monitor risk-taking. [..] The appropriate combination of [policy] measures may vary by country or region, and authorities – both in mature and emerging markets – should recognize the potential trade-offs between them to achieve an optimal policy mix.*" (IMF 2009, p. 38). For these reasons, the Basel II framework takes the form of guidelines, affording individual monetary authorities flexibility to achieve regulatory goals with three tools: capital requirements (Pillar 1), supervisory power (Pillar 2) and market discipline (Pillar3).

There is no consensus on the effects of individual measures, and various studies have concluded that regulation can have positive or negative effects on various indicators of bank performance, including on various definitions of efficiency. This is to be expected, since a regulation that is designed to, say, reduce risk by improving the quality of information on borrowers (and thus improve bank profits) is likely to increase operational costs (and decrease banks' cost efficiency).[2]

The net benefits of regulation are a complex combination of costs (for example, compliance, foregone product innovations and flexibility) and the benefits expected from the regulation, as illustrated for a sample of regulations in table 1.

The literature on the costs and efficiency of regulation can be divided into two groups:

- Direct estimates of the administrative burden of red tape, which are based on a 'standard cost model' framework, which underlies surveys of the cost of processes required to comply with regulation[3]

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[2] Banks operate in a heavily regulated environment and many different approaches have been taken to assess the effects of banking regulation on performance. These approaches include estimating links between regulation and bank stability, development and performance (eg Barth et al 2004), or cost and profit efficiency (eg Pesiouras 2009 and Delis et al 2008).

[3] See eg., International Standard Cost Model at http://www.oecd.org/dataoecd/32/54/34227698.pdf

- Econometric estimates of the links between firm performance (for example in banking, net interest margin, costs, efficiency) to the existence of regulations.

Elliehausen (1998) provides a comprehensive review of the various approaches taken to estimate the costs of bank regulation. The review includes many estimates of the likely costs and benefits of regulation to the sector. To the authors' knowledge, such a review has not been updated recently, despite remarkable changes to regulation of the sector, including the adoption of the Basel II framework in many economies across the world.

Table 1 **Sample of bank regulations and possible effects**

	Benefits	*Costs*
Capital requirements	Reduces probability of a 'run' or financial distress	Increase cost of raising funds
Power of supervisory agency	Improves governance, reduces corruption	Increase reporting and processing costs
Disclosure requirements	Improve market discipline through improved scrutiny by market participants	Increase operational costs to provide additional information
Restrictions on bank activities	Increases gains from specialisation	Reduces opportunities for economies of scale and scope, diversification of activities

Source: adapted from Pesiouras et al 2009

Recent measurements

Since Barth et al (2001 and 2004) produced a database of bank characteristics and regulators across more than 100 countries, several authors have used it to investigate the effects of regulation and market structure on the sector.

Demirgüç-Kunt et al (2004) assess the effects of regulation and concentration on the net interest margins[4] (hereafter NIMs) of more than 1400 banks in 72 countries. They conclude that concentration and regulatory restrictions can increase net interest margins through a variety of mechanisms (table 2). Whether net interest margins increase because of an increase in rents to banks or increases in their operating costs, such increases end up increasing the cost of borrowing for the rest of the economy.

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[4] Net interest margin is defined as the ratio of the difference between interest income and interest expenses, to interest-bearing assets.

The coefficients are typically interpreted as the effect of a regulation on net interest margins.[5] For example, using data from Demirgüç-Kunt et al (2004):

- increasing the value of the concentration index by 5 per cent is projected to increase net interest margins by 0.08 percentage points in Australia and 0.19 percentage points in Switzerland – where concentration is relatively high – and 0.04 percentage points in France and Germany, where the concentration index is relatively low (table 3)

- increasing restrictions on the activity of banks (increasing the value of the index by 5 per cent) is projected to increase net interest margins by 0.07 percentage points in Switzerland and the UK, where restrictions on activities are relatively low, and by more than 0.15 percentage points in Japan and in the US

- decreasing the operational flexibility of costs of banks (reducing the value of the corresponding index by 5 per cent) is projected to increase operational costs in Australia, New Zealand and the UK by 0.24 percentage points.

Table 2   **Sample of effects on net interest margins**

Percentage point change in NIM due to a 1 point change in the index

Factor	Effect	Rationale
Concentration	2.475[a]	Creates rents
Restriction on number of banks	2.760	Creates rents for incumbents
Restrictions on activities	1.366	Deny access to economies of scope
Reserve requirements	1.036	Increase cost of funds
Restrictions on operations[b]	0.963	Increase operating expenditures

[a] Simple average of coefficients reported across different estimations. [b] Higher value of the index reflects lower restrictions, so the sign has been reversed in this table.

Source: adapted from table 2 in Demirgüç-Kunt et al (2004)

[5] As a results of the cross-section estimation process, the estimated responses are uniform across the countries in the sample. This might be less than desirable, as the coefficients will perform relatively well around the mean values of the sample, but not as well at more extreme values.

Table 3 **Base NIM, index values and projected effects on NIM of increasing costs and rents, selection of countries**

5 per cent change in value of the index

	Base values				Changes in NIM due to:[e]		
	NIM[a]	Concen-tration[b]	Activity restrict[c]	Operation freedom[d]	Concen-tration	Activity restrict	Operation freedom
	[1]	[2]	[3]	[4]	[5]	[6]	[7]
	per cent	share	index	index	ppt	ppt	ppt
Australia	3.12	0.63	2.00	5.00	0.08	0.11	0.24
New Zealand	3.03	0.70	1.00	5.00	0.09	0.06	0.24
Japan	2.07	0.27	3.25	3.20	0.03	0.18	0.15
Korea, Rep of	2.39	0.37	2.25	3.80	0.05	0.13	0.18
Canada	2.03	0.56	1.75	4.00	0.07	0.10	0.19
United States	4.34	0.20	3.00	4.00	0.02	0.17	0.19
Mexico	5.70	0.64	3.00	2.00	0.08	0.17	0.10
Euro zone							
France	2.86	0.33	1.50	3.00	0.04	0.09	0.14
Germany	2.66	0.32	1.25	3.60	0.04	0.07	0.17
Belgium	2.38	0.75	2.25	4.00	0.09	0.13	0.19
Netherlands	1.97	0.81	1.50	5.00	0.10	0.09	0.24
Spain	3.40	0.54	1.75	3.60	0.07	0.10	0.17
Sweden	2.39	0.78	2.25	3.60	0.10	0.13	0.17
Non-Euro							
Switzerland	1.75	0.77	1.25	4.75	0.10	0.07	0.23
Great Britain	2.98	0.47	1.25	5.00	0.06	0.07	0.24

[a] Average for 1995-99. [b] Concentration index: fraction of assets held by the three largest banks. [c] Activity Restriction: index of regulatory restrictions on bank activities in security markets, insurance, real estate, and owning shares in non-financial firms; ranges from 0 to 4. [d] Operational freedom: index of overall openness of industry and extent to which banks are free to operate their business, ranges from 1 to 5, with larger values signifying more freedom/less stringent regulation. [e] Percentage point increases in NIM due to a 5 per cent change in index value, converted through coefficients in table 2. For example, 0.05 x 0.63 x 2.475 = 0.08.

Source: adapted from Demirgüç-Kunt et al (2003)

The framework developed in this section, based on Demirgüç-Kunt et al (2004), illustrates that increases in concentration and regulation-induced costs could significantly increase NIM. Though the changes might appear small, they can result in significant increases in NIM, especially where NIMs are small. For example, in Japan, NIM is estimated to be in the order of 2 per cent; adding 0.22 percentage points by increasing concentration and regulatory burden is equivalent a 10 per cent increase in NIM. Similarly, a small increase in the concentration index (the market share of the dominant banks) in Switzerland or the Netherlands is projected to increase NIM by nearly 5 per cent (10 percentage points) in these countries.

Section 2. Broader effects — a framework

Seldom are the impacts of regulation and concentration estimated in terms of their effects on the economy as a whole. However, recent reports indicate that Basel III rules will be evaluated in terms of their effects on the economy as a whole, not just in terms of their effects on the financial sector.[6]

In the meantime, the framework developed above is used in this section to estimate the possible effects of increased concentration and regulatory burden on the broader economy: the projected effects are combined with estimates of the economy-wide sensitivity of various economies to increases in the costs of capital and of the financial sector found in PC (2009).

For its 2009 Annual Report, the Productivity Commission attempted to estimate the sensitivity of the world's economies to inappropriate financial regulations (Productivity Commission 2009a). The modelling was designed to illustrate the likely global costs of two main effects:

1. an increase in operating costs for financial institutions in the OECD, arising, for example, from increasing the regulatory burden through excessive paperwork or constraints on operations; this effect is assumed to apply in the OECD only, given the importance of regulation in OECD financial sectors to global financial markets

2. an increase in the cost of capital to borrowers world-wide, for example, if regulation restricts unduly borrowers' ability to source funds or restricts unduly the ability of lenders to provide credit; this effect is assumed to apply to all economies as restrictions in the OECD are assumed to flow on to world capital markets.

The modelling is described in Productivity Commission (2009b) and summarised in box 1. The results of each simulation can be interpreted as 'elasticities', or the sensitivity of global output to inappropriate regulation.

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[6] 'The Basel committee, part of the Bank for International Settlements, has already promised to conduct an impact assessment this summer [2010] before adopting the new rules by the end of the year, but Monday's statement makes clear that regulators are concerned with the broader economy, not just how the proposals would impact on banks.' (Masters 2010)

Box 1 **Modelling the effects of excessive regulatory burden**

The GTAP model of the world economy was used to estimate the effects of inappropriate financial regulation on the broader economy.[a] The world's economies are aggregated into the 20 regions listed in table 1.

The focus is on long run effects, assuming that economies have adjusted to the changes modelled. This includes the ability for capital to flow across sectors and economies. The modelling is experimental and should be viewed as illustrative of the mechanisms at work and the orders of magnitude of the effects modelled. The results are not forecasts, but comparative-static projections of the difference between two situations: one with less burdensome regulation (the base case) and one with more burdensome regulation.

Inappropriate regulation was assumed to have two main effects, which are modelled in two separate simulations and presented in separate columns in table 1. Inappropriate regulation is assumed to:

- increase unit costs of production in the financial sector – this is modelled by decreasing the productivity of inputs used by the financial sector, that is, by increasing the inputs required to produce the same amount of output (for example, the same amount of financial intermediation); given the importance of the OECD financial sector in the global financial market, this effect is limited to OECD economies

- increase the cost of capital to borrowers by increasing the cost of finance – this is modelled by increasing the returns required per unit of physical capital, which raises the cost of employing a unit of capital; to reflect the interconnectedness of world capital markets, this restrictive effect on the ability to borrow capital is assumed to flow on to all financial markets.

The simulations involve:

- a 1 per cent increase in the unit cost of producing financial services, which increases the cost of using these services, and

- a 1 per cent increase in the cost of capital, which increases the user cost of capital.

[a] The GTAP model is a multi-country, multi-sector general equilibrium model of the world economy, which is widely used in policy analysis. The model is documented in Hertel 1997 and its code is available at https://www.gtap.agecon.purdue.edu/models/current.asp.

Source: Productivity Commission, 2009b

Economy-wide effects of regulatory burden

The higher cost of financial services and the higher cost of capital combine to increase the costs of business, reduce investment and capital stocks, and ultimately, global productive capacity (GDP).

Mechanisms

The costs of businesses increase through two effects: an increase in the cost of financial services and an increase in the cost of capital. The increased cost of financial services reduces demand for financial services, and therefore output of this sector.

The increased cost of capital increases firms' costs; this effect is larger for capital intensive industries and increases the price of their outputs more than for labour intensive industries. This effect encourages all firms to reduce their demand for capital, and to substitute labour for capital, but again, the effect is larger for capital intensive industries. As firms invest less or disinvest, their stock of capital is decreased and ends up being lower than it otherwise would have been. Ultimately, the output of capital intensive industries falls.

These mechanisms described at the firm and industry level also occur at the economy-wide level: output in more capital intensive economies falls further than in less capital intensive economies, as the increase in the cost of using capital increases their production costs more than costs in less capital intensive economies.

The higher costs borne by businesses in terms of what they pay for financial services and for capital both contribute to reduce global output.

The Commission's report shows that the economies modelled are more sensitive to a change in the cost of capital than they are to a change in the costs of financial services (table 4), because of the relatively large share of capital and the relatively small share of financial services in industries' cost structures. Typically, financial services represent less than 2 per cent of industry costs, whereas capital represents more than 20 per cent of industry costs.

Table 4 **Sensitivity of GDP to excessive regulatory burden on financial services and the cost of capital**[a]

Per cent changes

Country/region	Increased costs of providing financial services[c] [type 1]	Increased cost of capital to borrowers[d] [type 2]	Total[e]
Australia[b]	-0.072	-0.558	-0.630
New Zealand[b]	-0.079	-0.878	-0.956
China	0.015	0.076	0.091
Hong Kong	0.020	0.070	0.089
Japan[b]	-0.076	-0.633	-0.709
Korea[b]	-0.081	-0.866	-0.947
Taiwan	0.018	0.077	0.095
Indonesia	0.017	0.057	0.074
Malaysia	0.006	0.032	0.038
Philippines	0.031	0.134	0.166
Singapore	0.010	0.055	0.065
Thailand	0.017	0.083	0.100
Bangladesh	0.015	0.078	0.093
India	0.023	0.117	0.140
Rest of Asia & Oceania	0.010	0.030	0.040
Canada[b]	-0.104	-0.528	-0.631
United States[b]	-0.150	-0.355	-0.504
Mexico[b]	-0.030	-1.180	-1.210
Brazil	0.014	0.081	0.095
Rest of America	0.018	0.078	0.096
European Union[b]	-0.105	-0.788	-0.892
Russia	0.008	0.027	0.035
Rest of Europe	0.023	0.042	0.065
South Africa	0.022	0.084	0.106
Rest of Africa	0.009	-0.008	…
World	-0.086	-0.464	-0.541

a Data are presented at higher level of accuracy than in the original table to allow more precise calculations **b** Regions representing the OECD in the simulation. Due to the aggregation, Switzerland and Turkey are omitted. Conversely, Cyprus, Estonia, Latvia, Lithuania, Malta and Slovenia, as part of the EU, are treated as OECD countries. **c** Shocks applied only to OECD economies. **d** Shocks applied to OECD and non-OECD economies. **e** Aggregation of previous columns. Although previous columns can be interpreted as 'elasticities' of output to the shocks modelled, this column can only be interpreted as an output reaction to the 'small change' (that is, 2 per cent) modelled.

… between -0.0005 and 0.0005 per cent.

Source: Productivity Commission 2009b, table 5

Section 3. Bringing industry costs and economy-wide sensitivity together

The basic idea in this section is to combine the PC (2009) 'GDP sensitivities' with shocks estimated from the Demirgüç-Kunt et al (2004) framework to estimate orders of magnitude of the economy-wide effects of increased concentration and regulatory burden in the financial industry.

PC (2009) distinguish two sources of increases in costs to industries that use financial services. Since the results are presented as 'sensitivities' to a 1 per cent change in these costs, using these estimates requires percentage changes in the corresponding variables from the Demirgüç-Kunt et al (2004) framework.

Although Demirgüç-Kunt et al (2004) provide data for more than 100 countries, the calculations are limited by the economies that were identified in PC (2009).

In the following, the effects of 'operational freedom' are interpreted as those that are akin to increased 'administrative costs' (and their effects on NIM), which require the financial industry to increase the resources required to produce a given amount of services (that is, type 1 cost increases in table 4).

Increased concentration and 'restrictions on activities' are assumed to increase NIM and act directly on the cost of capital (that is, type 2 cost increases). The cost of capital is estimated as the lending rate sourced from the IMF International Financial Statistics.[7]

The two types of costs are therefore evaluated as:

1. $\Delta GDP\%(type\ 1) = sens(GDP/FScost) \times \Delta FScost\%$

2. $\Delta GDP\%(type\ 2) = sens(GDP/Kcost) \times \Delta Kcost\%$

where:

$\Delta GDP\%(i)$ is the percentage change estimate of the cost of increased cost of financial services (type 1) and cost of capital (type 2) in terms of foregone GDP

$sens(GDP/i)$ is the sensitivity of GDP to increases in the cost of financial services (type 1) and cost of capital (type 2), from table 4

$\Delta FScost\%$ is the estimated increase in the cost of financial services used as intermediate inputs, which is estimated as the projected change in NIM, that is, Δ(NIM in ppt)/(base NIM in per cent), from columns [7] and [1] in table 3.

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7 www.imfstatistics.org/imf/ consulted 20 May 2010.

ΔKcost% is the estimated increase in the average cost of capital from increased concentration and more stringent restrictions on activities, which is estimated as the projected change in the lending rate, that is, Δ(NIM in ppt)/(lending rate in per cent), from columns [5], [6] in table 3 and IMF statistics.

Table 5 reproduces the sensitivity of GDP to increases in each type of cost for a selection of economies. These sensitivities are not available for individual EU members.[8]

Table 5   **Projected effects of excessive regulatory burden on financial services, assuming a 5 per cent increase in indexes of concentration and regulatory burden**

Per cent

Country/region	GDP sensitivity to costs		Increase in costs		Effects on GDP[d]	
	Type 1	Type 2	Type 1[b]	Type 2[c]	Type 1	Type 2
	%	%	%	%		
Australia	-0.072	-0.558	6.141	2.072	-0.442	-1.156
New Zealand	-0.079	-0.878	4.734	1.390	-0.374	-1.220
Japan	-0.076	-0.633	10.536	8.328	-0.801	-5.271
Korea	-0.081	-0.866	7.266	1.596	-0.589	-1.382
Canada	-0.104	-0.528	8.312	2.579	-0.864	-1.362
United States	-0.150	-0.355	4.499	2.330	-0.675	-0.827
Mexico	-0.030	-1.180	4.380	0.743	-0.131	-0.877
European Union	-0.105	-0.788	na	na	na	na
France[a]	na	na	4.408	1.847	-0.463	-1.455
Germany[a]	na	na	4.159	1.154	-0.437	-0.910
Belgium[a]	na	na	9.271	3.014	-0.974	-2.375
Netherlands[a]	na	na	9.414	3.177	-0.989	-2.504
Spain[a]	na	na	4.890	2.476	-0.513	-1.951
Sweden[a]	na	na	9.388	3.035	-0.986	-2.391

[a] EU sensitivity applied. PC (2009) does not identify different members of the EU separately. [b] Percentage change in the cost of financial services, that is, change in cost in column [7] relative to NIM (column [1]) in table 3. [c] Percentage change in the cost of borrowing, that is, sum of changes in cost in columns [5] and [6], table 3, relative to the lending rate sourced from IMF International Financial Statistics. [d] Percentage change in GDP, calculated as product of GDP sensitivity and corresponding increase in costs for each type of cost.

Source: author's calculations

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[8] It would be useful to have different sensitivities for individual EU economies, since there is great variation in the structure of these economies and in their regulations. The UK is omitted from this analysis because it is not part of the Euro zone.

Subject to the limitations of the model, assumptions and data used, the results illustrate that the costs of concentration and of excessive regulation of the financial sector can be substantial.

For most the economies modelled, a 5 per cent increase in costs arising from additional regulatory compliance requirements (type 1) could be worth between 0.5 and 1 per cent of GDP. These orders of magnitude are a function of: (i) the pervasiveness of finance in the cost structure of the economy (a large financial sector entails larger GDP costs); (ii) the relative costs of the financial sector (a change in indexes on a sector with low NIM—such as in Japan or the Netherlands—entails larger GDP costs).

A 5 per cent increase in indexes of concentration and restrictions on activity, which are assumed to increase the cost of capital could entails costs in the order of 2.5 per cent of GDP in several of the economies modelled, and 5 per cent in Japan. The orders of magnitude are a function of: (i) the capital intensity of the economy (capital intensive economies suffer larger costs); (ii) the base level of the lending interest rate, which is particularly low in Japan (about 2 per cent) and much higher in Mexico (exceeding 15 per cent)—a given percentage point increase in the lending rate produces a larger proportional increase where the lending rate is low.

Some caveats

The Demirgüç-Kunt et al (2004) work used data for a period during which Basel II recommendations were being implemented progressively across the economies included in this study. The indexes indicating the restrictiveness of the financial systems and the NIM responses could be affected. In the absence of similar more recent work repeating or improving on the original, it is difficult to establish how recent changes in financial sector regulation might have changed the values of the indexes or the NIMs. The data for NIM and lending rates are for 1995-2000. This paper assumes that the estimated relationships hold more recently, despite the volatility of interest rates and NIM.

The 'GDP sensitivities' were derived from a global CGE model calibrated for 2004, incorporating an economic structure that could be quite different from that which prevails now, two years after a significant financial crisis.

The EU sensitivity used across EU members is not very satisfactory, because of the diversity of economic structures among the EU economies. In addition, Table 3 showed that there are large differences in the NIM and regulatory statistics of various Member States. Some of these differences might have narrowed with the increased influence of the European Central Bank, relative to the period covered in

the Demirgüç-Kunt et al (2004) work. It is difficult to speculate about how results are affected without updating the studies and using more disaggregated data.

This paper used input from Demirgüç-Kunt et al (2004) and PC (2009) as inputs to produce orders of magnitude of the possible effects of inappropriate regulation of the financial sector. It demonstrates a possible framework for doing this. Further research might be able to produce updated indexes, NIM responses and GDP sensitivities to apply to a similar framework.

Section 4. Looking forward

Financial regulations aim at bringing the benefits of high growth, stable financial markets and robust consumer protection. As with all regulations, they also impose costs on the economy in the form of additional costs that are borne the sector and its customers. Benefits and costs are so varied, and involve so many complex trade-offs that regulatory diversity—the option for countries to go beyond minimum regulations—emerges as a valuable principle.

However, regulatory diversity is under constraint because potentially large costs may arise from regulation. To illustrate the costs of financial regulation, this paper combines for several OECD economies (i) Australian Productivity Commission modelling of the sensitivity of GDP to increased concentration and regulation in the financial sectors with (ii) industry-level cost responses to changes in concentration and regulation from Demirgüç-Kunt et al (2004).

Because the financial sector pervades the economies, increasing the economic costs associated with regulation and concentration of the financial sector have far reaching consequences.[9] This result stresses the importance of evaluating carefully any regulation before implementing it, and the importance of regular reviews to avoid obsolete and inappropriate regulations, as well as inappropriate concentration.

One of the four key lessons from the Japanese 1990s 'Lost Decade' during which Japan had to address a severe financial crisis is that a long crisis generates a severe attrition of competition (Kaji 2009).[10]

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[9] This illustration is based on arbitrary assumptions about the size of the excessive regulatory burden on the financial sector since it was not possible to estimate the cost of excessive financial regulation in the context of the Commission's study. Combined with estimates of the magnitude of excessive regulatory burden, the information in table 1 could be used as 'coefficients' to estimate the economy-wide costs of excessive regulatory burden for each of the economies listed.

[10] Attrition of competition has an impact on the cost-benefit balance of regulations. It makes 'stricter' regulations more costly because it amplifies their costs in terms of reduced competition.

There is no better way to fight any possible attrition of competition that might arise from the latest economic and financial slowdown than to open markets to foreign competitors. It may not be the most appropriate time to negotiate the opening of financial markets in the Doha Round—governments are probably unlikely to add a new source of turbulences to a sector that experiencing restructuring. But, it is the best time to prepare such negotiations by sketching the main components of an international regulatory framework, because such a task has often proven easier when countries are re-examining their own regulatory policies and have more open minds.

Regulatory diversity requires a minimum international regulatory framework. Such a framework should be conceived as the basis for the future 'reference paper' in financial services in the World Trade Organization (WTO).[11] It is important that these international financial standards be kept minimal. Achieving such a goal will not be easy because international negotiations on standards are likely to lead to a proliferation of requests from all sides. But it is a crucial goal for three reasons.

First, setting standards too high would reduce or eliminate the possibilities of regulatory diversity. Since what is at stake is growth—and banks contribute to generate it—it is important to keep the widest range of trade-offs between growth and other objectives. That said, regulatory diversity could be conditional on key disciplines, such as transparency, proportionality and non-discrimination.

Second, minimal international standards would allow the inclusion of developing countries, boosting their growth and ensuring the largest geographical coverage of the agreement, hence the international stability of multinational and national financial institutions.

Third, by opening the door to a future WTO agreement in financial services, an agreement on minimum international financial standards would open the door to the WTO dispute settlement system, which is exactly the kind of institution that financial services providers require in a globalized world.

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[11] The WTO negotiations in services have two basic components: the schedule of concessions which defines the extent to which countries open their market to foreign services providers, and sectoral 'reference papers' which provide key guidelines in regulatory matters in the sector in question. The approach in this paper echoes the WTO approach in terms of norms: a minimum international norm, coupled with the possibility for countries to adopt stricter norms, subject to the three disciplines of transparency, proportionality and non-discrimination.

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