The Role of Regulators in Financial Services Sector Policymaking: A Comparative Analysis of Canada, Australia and Sweden

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Introduction

Financial crises have been a recurring feature of financial systems across the globe, as financial actors tend to overlook historical precedents and believe that 'this time is different' (Reinhart and Rogoff 2011). Governments must face the unpleasant reality that financial crises will occur, utilizing public policy, supervision and regulation to ensure a well-functioning financial system and encouraging systemic stability. Financial services sector policymaking is often explained through macro-level institutional choices or micro-level interplay between individual actors. However, policymaking in finance may be best understood at the meso-level, where regulators, because of their technical expertise, play a key role both in the development of public policy and in its implementation. Regulators play an essential role in promoting systemic stability and in responding to a crisis, when one occurs.

In this paper, we are concerned with regulatory architecture in finance and the ways regulators operate within these varying institutional settings. Specifically, how do regulators pursue their mandate, to ensure safe, stable and fair financial markets, in different regulatory architecture models? There are four 'ideal-type' models of regulatory architecture: *institutional*, *functional*, *supervision by objectives* and *unified*. We argue that the architecture is important to the extent that it facilitates or impedes regulatory effectiveness – the ability for regulators to act in a way that is consistent with their mandate while fulfilling the role and responsibilities set out therein. Under each of these models – and combinations and variations thereof – effective regulation is possible but must be pursued differently depending on circumstances. This is because the chosen regulatory architecture will affect the ways in which regulators operate, thus shaping the 'rules of the game' under which all actors – public and private – play in the financial sector.

We illustrate the argument above by comparing Canada, Australia and Sweden. We selected these three countries because they all fared well during the 2007-2008 global financial crisis, yet each has a different regulatory architecture. Numerous explanations have been advanced for their success; Canada is said, for instance, to have benefited from a prudent banking sector. In this analysis, we focus specifically on how regulators operate in specific institutional settings, rather than on broad macro or micro-level explanations about the resilience of these countries during the crisis. Despite their dissimilar regulatory architecture, regulators in Canada, Australia and Sweden are all considered effective. Canada has a federal prudential regulator, the Office of Superintendent of Financial Institutions (OSFI), that is argued to be high performing (Anand and Green 2012). Canada's regulatory apparatus, admittedly, is scattered and decentralized, containing aspects of

several of the models of regulatory architecture that are outlined in this paper. Australia, for its part, currently follows the 'twin peaks' approach – a specific, much-discussed, variant of the *supervision by objectives* model – which is characterized by a prudential regulator for system stability and a second regulator for market conduct. In the early 1990s, Sweden merged pre-existing regulatory agencies into a single *unified* regulator following in the footsteps of other Nordic countries which were all at the forefront of what would become shortly thereafter a global trend. Using a most-different approach, we analyze how regulators in each of these jurisdictions have pursued their mandate and achieve regulatory effectiveness operating within distinct architectures. How is this effectiveness to be explained? As mentioned above, the regulatory architecture does not by any means determine effectiveness, but it shapes how regulators go about their activities.

This paper is divided into two sections. First, we discuss the four regulatory architecture models, their strengths and weaknesses, as well as how they affect regulators' ability to pursue their mandate. Second, we compare regulators in Canada, Australia and Sweden to identify commonalities in practices, despite their different regulatory architecture. The research presented in both sections is based on a literature review that includes both primary and secondary sources, as well as grey literature. We conclude by identifying key takeaways and avenues for further research.

Regulatory Models

This section considers the different models for regulatory architecture in finance in relation to regulators capacity to deliver on their mandate. Each model provides a different organizational framework to accomplish basic supervisory and regulatory objectives in finance, most notably: a) *prudential* supervision, which is "aimed at safeguarding the solvency of financial institutions and, as a consequence, their ability to honour their promises to depositors or policy holders" (Wymeersch 2007, 243); and b) *market conduct* supervision, "dealing with policing different types of behaviour that are likely to be detrimental to investors and to the functioning of the markets" (Wymeersch 2007, 244). In recent years, there has been a move towards macro-prudential supervision to preserve and enhance system stability. The responsibility for macro-prudential supervision differs across country and may not lie within a single entity. The central bank and treasury department are frequently the core actors regarding financial stability; regulatory bodies are also involved in macro-prudential supervision, but the extent to which that is part of their mandate varies significantly.

There are four regulatory architecture models: *institutional*, *functional*, *supervision by objectives* and *unified* (Di Giorgio et al. 2000). Below, we address these models in turn, describing the salient features of each. Specifically, we describe how fundamental objectives such as prudential and conduct of business supervision can be achieved in each framework.

The *institutional* model of regulatory infrastructure comprises separate regulators to supervise distinct segments of the financial marketplace (ibid). This approach was dominant up to the regulatory reforms of the last two decades of the twentieth century. Regulatory entities were divided alongside the three industry pillars, banking, insurance, and securities (Botha and Makina 2011), reflecting the then structure of the sector. Under this model, regulators had authority over

firms operating within their pillar of the industry (Wymeersch 2007). This model worked when financial firms were confined to a single pillar, but as firms began to operate across pillars, this architecture became cumbersome and outdated. While remnants of the institutional model remain, especially in the European Union, most countries have moved away from this framework.

Meanwhile, in the *functional* model, each of the numerous regulators is mandated to supervise and regulate financial services activities (ibid), irrespective of the provider of the service. The focus under this model is upon the nature – or function – of the services performed, not the legal categorization of the regulated entities (as in the institutional model); thus, a single diversified firm will be regulated by numerous distinct regulators. France is, at times, presented as an example of the functional model, but it refers to its own approach as emulating the twin peaks model. Financial firms in the functional model are under the purview of potentially many different regulators, likely subject to overlapping and costly obligations; regulators themselves must closely work together to make this approach work. Due to the complexity of developing and implementing the functional approach, this model is also of more limited practical value.

Two models of regulatory infrastructure and variants thereof have come to dominate the contemporary financial landscape, the *supervision by objectives* and the *unified* model. As stated by Di Giorgio et al. (2000, 10) "… we think that modern financial systems should rely on either a single regulator or independent agencies, each one responsible for one of the three objectives of regulation" which, according to the authors, are prudential supervision, market-conduct and preserving and enhancing competition. Below, we conduct an in-depth comparison of these two models with the goal of better appreciating their differences, especially in terms of their impact on regulatory practices and performance.

Many factors – such as the globalization of finance, the de-pillarization of the industry, the rise of financial conglomerates, and recurring financial crises – have led states to reconsider both their regulatory infrastructure and the various mechanisms by which the financial services sector is supervised and regulated. As these trends began to take hold in the 1980s, the Nordic countries were among the first to make substantive changes to their regulatory architecture. These countries chose to adopt and implement the unified model – Norway in 1986, Iceland and Denmark in 1988. The Swedish government created Finansinspektionen (FI) in 1991 by merging the Private Insurance Supervisory Service and the Bank Inspection Board. Most notably, the United Kingdom would adopt this model in 1999 with the creation of the Financial Services Authority (FSA), which it would later dissolve following the 2007-2008 financial crisis – at the time, though, many in both policymaking and academic circles concluded that the unified model of regulatory architecture was generally superior. There are variants to the unified model. For example, it can refer to the coexistence of prudential and market conduct regulatory authority in a single entity – in this case, the regulator is a meta-regulator. In a less extreme version, the unified model is understood solely as the integration of all prudential supervisory authority in a single regulator (see for example Llewellyn 2004). From this vantage point, Canada can be described as having a unified model of regulation since OSFI serves as the prudential regulator across all sectors of finance. Market conduct regulation in Canada, however, is spread across numerous jurisdictions and regulators. Llewellyn (2004) conducted an inventory of 77 countries remarking that 22 of them used the unified model. The prominence of this approach suggests that many countries feel that it is the

optimal choice – or, at a minimum, well-suited – to handle the developments in finance that have occurred since the 1980s.

What are the benefits and drawbacks of this model? The perceived benefits of the unified model are clear and lie in a consistent and coherent approach to all regulation, the clarity of rules, and transparency regarding practices across all areas of the financial sector. Moreover, from an accountability perspective, there is little doubt as to the responsible agency. Adapting from Briault (1998) – who examined the case of the FSA in the UK – Llewellyn (2004, 53) identifies the following specific benefits of the meta-regulator model:

- *The advantages of harmonization, consolidation, and rationalization of the principals, rules, and guidance issued by the existing regulators or embedded within existing legislation, with recognition that what is appropriate for one type of business, market, or customer may not be appropriate for another.*
- *A single process for the authorization of firms and for the approval of some of their employees, using standard processes and a single database.*
- *A more consistent and coherent approach to enforcement and discipline, while recognizing the need for appropriate differentiation.*
- *In addition to a single regulator, a single scheme for handling consumer complaints and compensation and a single independent appeals tribunal.*[1]

There are also many possible benefits from integrating all prudential authority under one entity (the more restricted form of the unified model). Perhaps most notably, it allows "a group-wide picture of the risks of an institution to be observed more clearly and thus supervised" (Llewellyn 2004, 44); this may be especially important in the context of the rise of financial conglomerates operating across pillars. The unified model also encourages optimal deployment of staff and helps keep the cost of regulation low as the structure is readily recognized and understood by all actors. In addition, as Llewellyn (2004) argues, it reduces the risk of regulatory underlap or overlap due to an excessive or insufficient number of regulators, thus decreasing the potential for regulatory arbitrage (which can be a major obstacle to regulatory effectiveness). The unified model also takes advantage of economies of scale – thus reducing institutional costs – based on the assumption that a comprehensive regulator is to generate operational efficiencies.

The unified model is appealing in its simplicity, however, there are significant risks associated with the choice of this regulatory architecture. The biggest concern relates to the potential for conflict between prudential and market-conduct regulation, whose differing objectives often place them at cross-purposes. As Llewellyn writes, "seldom does regulation have a single objective, and, when multiple objectives are set, conflicts can arise between them. Although this is true irrespective of institutional structure, different structures may be more or less efficient at handling conflicts" (2004, 34). Notably, the matter of how best to reconcile these diverging interests is a major dilemma in the unified model. As previously mentioned, Great Britain moved away from the unified model following the 2007-2008 crisis. The demise of the FSA in the UK exemplifies, in fact, the limits of this model. For instance, the Bank of England (2011) offered the following

[1] This final point applies most of all to the former British FSA.

reflection upon the limitations and faults of the unified FSA in the UK (which was disbanded in 2009):

> *The conduct supervisor can measure success partly by enforcement, convictions and fines: the prudential supervisor seeks to ensure the continued prudent management of firms in the interests of the system as a whole. Putting these two cultures togethers was a mistake, and in our view directly contributed to the FSA's taking its eye off the build-up of prudential risks in a number of major institutions.*

As such, there are also concerns regarding the level of power granted to a single entity. The meta-regulator, especially, represents an all-powerful regulator with limited check on its authority. Furthermore, the meta-regulator, in practice, is quite large and unwieldy; this can make coordination much more difficult than it might appear on paper. The cost-savings that the model is purported to generate may not materialize. It is worth noting that the criticism often leveled at the unified model generally refers to the meta-regulator. The same criticism, clearly, does not apply to the unified prudential-only regulator model. The twin peaks approach accounts for many of the criticisms levied at the single meta-regulator model.

The so-called twin peaks model – a specific, common variant of the supervision by objectives approach – first appeared in Australia at the end of the 1990s, following a financial crisis that the country experienced earlier that decade. The supervision by objectives model features a number of regulators, each dedicated to a specific objective: in the twin peaks model, there is one regulator dedicated to prudential matters, and one for market conduct. Cooper (2006) notes that Australia, in fact, considered the unified model, but found the twin peaks approach a more appropriate compromise. Godwin et. al. (2016) identify four advantages to the twin peaks model. First, both regulators have clearly delineated and distinct mandates. Second, the 'competition' between regulatory objectives – the balance between prudential regulation and market-conduct – helps to ensure that both are carried out, and that neither dominates the other. Third, Godwin et al. (2016) argue that regulators dedicated to a specific set of goals are better positioned to understand the ever-increasing complexity of financial markets, especially in light of increased globalization and the continued integration of activities across banking, insurance, and securities. Finally, the conflict of interest which is said to exist in the meta-regulator, again between the pursuit of prudential regulation and market-conduct regulation, is avoided. As such, the common benefits observed in the twin peaks model is, in effect, the separation of functions between prudential and market-conduct responsibilities. Regulators can each pursue their mandate independently – the advantages, therefore, to the regulation by objectives models are its responses to the unified model. In effect, the twin peaks model is viewed by many as a 'Goldilocks' situation: just enough regulatory competition, but neither too much nor too little.

Despite its many benefits, there are also some concerns regarding the supervision by objectives model of regulatory architecture. Godwin et al. (2016) identify several, two of which seem of greater relevance. First, there is the possibility for duplication and overlap between the regulators. Two regulators can lead to excessive regulation which could be costly for market actors. The second major consideration relates to the coordination and collaboration between and across regulators; for instance, information sharing protocols and mechanisms (often conducted via non-binding memorandums of understanding) represent a challenging area for regulatory bodies.

Emerging from this discussion is a core consideration which affects regulators' capacity to carry out their mandate: the relation between prudential and market-conduct supervision and regulation. Irrespective of the preferred architecture, the policymaker needs to properly consider how each of these functions is going to be carried out and how to make sure that both are pursued with equal intensity. The grand objective of a safe, stable and fair financial market requires that the regulatory architecture accounts for the ways by which these functions (as well as system stability and competition) will be attained. The dominance of prudential regulation could facilitate market abuse, while an over-emphasis on market-conduct could lead to both credit and systemic risks. The regulatory infrastructure selected determines who and to an extent how these objectives are to be attained, as to whether the objectives are met, this depends on regulatory effectiveness.

There is another issue which has been alluded to earlier, which is that of macro-prudential supervision and regulation. Macro-prudential supervision refers to the ways to contain and address systemic risk, which moved to centre stage after the 2007-2008 global financial crisis. This is an interesting challenge for states: who is ultimately responsible for the systemic stability of the financial system? The British crisis demonstrated that neither the FSA, the Bank of England or the Treasury felt they were responsible for the stability of the whole. The four regulatory models do not directly address how best to deal with systemic risk. At the time many countries reformed their regulatory system, there was limited consideration of macro-prudential issues. However, given the events of the most recent crisis, this matter can no longer be bypassed in the design of regulatory architecture, and in fact may be one of the most important elements to contemplate.

The discussion above demonstrates clearly that a country's choice of regulatory model does matter, but that other factors – in particular, how regulators choose to exercise their mandate – are of great significance as well. Most of all, as Llewellyn (2004, 26) stresses:

> *It is an illusion to believe that there is a single, superior model of institutional structure that is applicable to all countries. To some extent, the optimal structure may depend on the structure of a country's financial system. Equally, it is an illusion to believe that any structure is perfect or guarantees effective and efficient regulation and supervision of the financial system. Changing the institutional structure of regulation should never be viewed as a panacea or as a substitute for effective and efficient conduct of regulation and supervision.*

We now turn to our case studies to look at how Canadian, Australian and Swedish regulators pursue their mandate considering the model in place in each country.

Case Studies: Canada, Australia and Sweden

The case studies selected – Canada, Australia and Sweden – have each implemented a different regulatory architecture. FI, in Sweden, represents a classic example of the meta-regulator unified model, as it incorporates both prudential and market conduct supervision and regulation and has authority over all firms in the financial services sector; FI also is mandated to address macroprudential concerns and financial stability. Australia is a prime example of the supervision by objectives model, as the first country to adopt the twin peaks regulatory architecture. The

responsibilities for prudential supervision and market conduct are separated between the country's two main regulators: the Australian Prudential Regulatory Authority (APRA) and the Australian Securities and Investments Commission (ASIC). Canada's irregular patchwork of regulators does not easily fit into one of the ideal-types. Financial services sector policy, supervision and regulation is divided between the federal government for banking and insurance (for solvency of firms), in turn provinces have jurisdiction for cooperative banking, trusts and parts of the insurance industry (under contract law). The responsibility for micro-prudential regulation lies with OSFI at the federal level; market-conduct regulation is spread across federal and provincial regulators where there are some variances in practices. Canada's regulatory architecture, to some extent, is a mixture of the prudential-only variant of the unified model and the regulation by objectives approach. There are also remnants of the institutional model; for example, in Canada, the securities industry is regulated at the provincial level, separately from other sectors .

Canada, Australia and Sweden are all considered success stories coming out of the 2007-2008 global financial crisis; for the most part, they did not experience the major credit crunches and financial institution failures which afflicted many countries across the world. A major reason for each country's performance is the effectiveness of their regulator, even though they operate in rather different social, economic, political, and institutional contexts. What are some of the common characteristics across these regulators that have allowed them to be successful? Regulatory effectiveness is a tricky-to-define concept which is also very difficult to empirically measure; thus, it is beyond the scope of this research to determine the extent to which these regulators were or are still today effective. In this paper, we refer to Canadian, Australian and Swedish regulators as effective because they are generally perceived as such (see for example IMF 2014a, 2016, 2019).

Tables 1-4 (see below) present core information for OSFI, APRA, ASIC and FI. From this survey, three broad observations emerge. First, irrespective of the architecture, the responsibilities regarding prudential regulation and market conduct are clearly delineated. Across regulators, the mandates highlight different legal approaches, practices and priorities, but there is a clear emphasis on the role regarding micro-prudential and market-conduct regulation. The Canadian case is interesting, as previously stated, if only because it is a unique arrangement; there is a federal regulator responsible for micro-prudential regulation – OSFI – across sectors, whereas the responsibility for market-conduct is spread across regulatory entities. In fact, market-conduct regulation in Canada is generally considered one of the system's weaknesses. In Australia, APRA is clearly responsible for prudential regulation and ASIC for market-conduct – indeed, it is the very foundation of their chosen model. Meanwhile, in Sweden, the FI is responsible for both micro-prudential and market conduct regulation; the regulator's internal structure is such that the potential for conflict between prudential and market conduct action is minimized. This first observation referencing the separation of micro-prudential and market conduct regulation is consistent with the literature review in this area which stresses the need for countries to clearly demarcate responsibilities and to ensure that authority and accountability about each are clearly established.

Of note, there is also an interesting comparison to be made in the area of macro-prudential supervision. The Canadian approach to macro-prudential supervision and coordination is via the work of two committees – the Senior Advisory Committee (SAC) and the Financial Institutions

Supervisory Committee (FISC) – that comprise the Department of Finance, the Bank of Canada and all federal regulators. Canadian regulators share the responsibility, but none carry it independently. In Australia, APRA has the mandate to promote financial stability, but it is to be done largely through micro-prudential supervision. In Sweden, FI has been given a mandate to pursue macro-prudential objectives, although it cannot act independently in this area. Of note, Sweden has a similar committee-style structure to Canada responsible for macro-prudential supervision – composed of the Ministry of Finance, the central bank, and key regulators – the Financial Stability Council (FSC).

There is a second point of convergence, independence. Each regulator enjoys legal and operational independence, as is appropriate to exercise its mandate. Regulatory independence is clearly important to minimize political interference. Regulators in each country are accountable to policymakers (Parliament), but there is no indication that they are working in overtly politicized environment. This independence allows regulators to pursue their role as a referee in a relatively equitable way, giving each actor cause for confidence in the system.

Regulators also enjoy autonomy of action. From an operational perspective, regulators all espouse, as is now the norm, a risk-based approach. In Canada, OSFI favours what it calls a 'close-touch' approach to supervision by which it is in regular contact with private firms – the approach ensures that the regulator is present as soon as it is needed. The Australian regulators have also been granted vast authority to supervise and regulate the industry, as well as to take corrective measures as required (IMF 2019). In Sweden, the FI's capacity to act is more prescribed which is consistent with the meta-regulator model ensuring that authority is not excessively concentrated.

The final observation to be made is that all regulators studied in this paper were formed in response to market changes and – to some degree – financial difficulties; the lessons learned may have played a role in fostering the high level of regulatory effectiveness observed during the 2007-2008 financial crisis. As mentioned earlier, by the 1980s, significant changes had taken place in the financial marketplace, and regulatory arrangements across the globe had yet to adapt to this new context. In many respects, these market changes were the principal motivation for the major regulatory infrastructure reforms observed in all three countries studied, but the impetus for change was also provided by the various financial crises experienced during this period. For example, as detailed by OSFI (2019), Canada had long considered reforming its system of financial regulation, but the failure of two minor banks in 1985 helped precipitate a detailed review of Canadian regulatory arrangements in the mid-1980s which led to OSFI's establishment as a unified prudential regulator in 1987. In Australia, an early 1990s financial crisis featuring several bank failures led to the establishment of the Wallis Inquiry, the mid-1990s financial system review that resulted in the establishment of the twin peaks regulatory model. Meanwhile, FI, the Swedish meta-regulator, fits the pattern to a lesser degree, as it was created principally in response to market changes. In any case, financial crises hit several Nordic countries very hard in the early 1990s – including Sweden – and FI played a key role in helping Sweden resolve and recover from its crisis.

Even though Canada, Australia and Sweden have different regulatory infrastructure, they share key features that have allowed their regulators to be effective. Regulators in each country have clear mandates, most notably in the separation of micro-prudential and market conduct regulation. Regulators are independent and enjoy autonomy of action. They can intervene rapidly in response

to market situation. Finally, governments in all three countries demonstrated a certain ability to learn and their choice of architecture reflects prior experiences. Admittedly, good public policy made in the past does not guarantee sound decisions going forward. There, in fact, has been some discussion about whether countries that fared well in 2007-2008 were little more than lucky: for example, Mackintosh (2018) notes that warning signs can be found in the housing market and foreign currency financing in Canada, Australia and Sweden, potentially indicating that these countries did not adequately heed the lessons of the recent crisis. Regardless, future crises, whenever they may occur, will further test regulators' resilience across the three countries analyzed.

Table 1
Canada: Office of the Superintendent of Financial Institutions (OSFI)

History and Origins	- Established in 1987 by the *OSFI Act* - Merger of Department of Insurance (DOI), Office of the Inspector General of Banks (OIGB) - 1985 failure of Canadian Commercial Bank, Northland Bank "served to focus thinking on Canada's regulatory structure and created a significant impetus for action" (OSFI 2019) - OSFI was provided with a legislated mandate in 1996 (OSFI 2019)
Legislated Mandate[2]	1. Supervision of financial institutions[3] regarding: a) Financial condition b) Compliance with laws and requirements 2. Advising management, boards of financial institutions when they are not in compliance, taking corrective measures or require that they be taken if necessary 3. Promoting responsible practices for controlling and managing risk 4. Monitoring and evaluating system-wide or sectoral developments with potential negative impact - "In fulfilling its mandate, OSFI supports the government's objective of contributing to public confidence in the Canadian financial system." (OSFI 2018) - OSFI also supervises Canadian pension plans (OSFI 2018)
Internal Structure	- The Superintendent is the head of OSFI, supported by an Executive Management Team (which the Superintendent has sole power to appoint) (IMF 2014b) - Five main 'Sectors', each led by an Assistant Superintendent: Regulation, Deposit-Taking Supervision, Insurance Supervision, Risk Support, and Corporate Services (OSFI 2018) - An independent unit within OSFI, the Office of the Chief Actuary (OCA) is headed by the Chief Actuary (OSFI 2018)
Reporting and Accountability	- Independent agency of the Government of Canada - Reports to Parliament through the Minister of Finance - Annually issues and tables in Parliament an annual report and departmental plan - Appears before Parliamentary committees - Confidential surveys, consultations to assess performance - Participates in reviews to determine whether OSFI is meeting international standards (OSFI 2018) - "OSFI interacts with the executive branch of government policy and regulatory issues through […] the Senior Advisory Committee (SAC) which advises on policy, and the Financial Institutions Supervisory Committee (FISC), in charge of regulatory matters" (Roberge and Dunea 2014, 269)
Compliance Mechanisms and Approach	- "OSFI takes a risk-based and conservative approach to supervision that reflects the nature, size, complexity and risk profile of the institution. When an institution is found to have a material weakness, it is subject to increased and more intense supervision." (IMF 2014a, 19) - "As part of its program of emphasizing the accountability of boards and senior management for the management of the banks, OSFI engages in what is referred to as "close- touch" supervision. This means a high level of engagement occurs between OSFI and each of the banks, particularly the large institutions. Contact is frequent and at all levels of the institution, including the board." (IMF 2014a, 10) - "OSFI appears to obtain compliance through regular interactions with private sector actors, but much of it takes place behind closed doors." (Roberge and Dunea 2014, 270)

[2] It is worth noting that "OSFI's mandate does not include market conduct, ensuring public access to financial services, nor the development of the financial sector" (IMF 2014a, 7).

[3] In the case of OSFI, the category 'financial institutions' encompasses deposit-taking institutions (i.e. banks, trust companies, loan companies, cooperative credit associations, and cooperative retail associations) and insurance companies (i.e. life insurance companies, fraternal benefit societies, property and casualty insurance companies, and mortgage insurance companies).

Table 2
Australian Prudential Regulatory Authority (APRA)

History and Origins	- Established in 1988 under the *Australian Prudential Regulation Authority Bill 1998* - Following the Wallis Inquiry into the Australian financial system (APRA 2017b) - Predecessors: Reserve Bank of Australia (which supervised banks prior to the Wallis Inquiry), Australian Financial Institutions Commission, Insurance and Superannuation Commission (Wallis 1996)
Legislated Mandate	- To regulate "bodies in the financial sector in accordance with other laws of the Commonwealth that provide for prudential regulation or for retirement income standards" (APRA 2017a) - In developing regulation and policy, "APRA is to balance the objectives of financial safety and efficiency, competition, contestability and competitive neutrality and, in balancing these objectives, is to promote financial system stability in Australia" (ibid) - "Specific industry Acts - covering banking, general insurance, life insurance, private health insurance and superannuation - reinforce this broad mandate and also set out our objectives with respect to the licensing and prudential supervision of each industry." (Ibid) - "Taking this legislation together, APRA's primary objective is to protect depositors, insurance policyholders and superannuation fund members through promoting the prudent management of regulated institutions in each industry, and the promotion of financial stability more broadly." (ibid)
Internal Structure	- "Under its enabling legislation, APRA's governance structure comprises a full-time Executive Group of at least three and no more than five Members. The Executive Group is responsible and accountable for the operation and performance of APRA" (APRA 2018) - A "number of governance committees […] support the Executive Group to oversee APRA's core functions and capabilities, including an Audit Committee and Risk Management Committee" (APRA 2018)
Reporting and Accountability	- Independent agency of the Commonwealth of Australia - Reports to Parliament through the Treasurer of Australia (the minister responsible) - Tabling of APRA's Annual Report in Parliament (APRA 2017a) - Regular and ad-hoc appearances at parliamentary committees by 'Members' and senior executives, as well as "regular meetings with the Treasurer and relevant Ministers to provide briefings on matters across banking, insurance and superannuation" (ibid) - Satisfies requirements under the *Public Governance, Performance and Accountability Act (PGPA Act)* - Reports annually against the *Regulator Performance Framework* - "A Statement of Expectations sets out the Government's expectations about APRA's role and responsibilities as well as issues of transparency and accountability. APRA's Statement of Intent outlines its response to this Statement of Expectations." (Ibid) - "The Government reviews APRA's annual budget and approves the levies that are imposed on industry each year to fund APRA's operations" (ibid)
Compliance Mechanisms and Approach	- "The APRA Act provides APRA with broad operational powers to deliver its functions. The Banking Act also provides APRA with a range of regulatory powers to license banks, regulate them, and apply corrective actions." (IMF 2019, 67) - APRA meets its aims "by seeking to ensure that the quality of a financial institution's systems for identifying, measuring and managing the various risks in its business (including, for example, adequacy of capital) are sound and act to reduce the risk of failure. When failure does occur, APRA works to maintain public confidence in the financial system by helping the entity make an orderly exit from the market." (Cooper 2006, 5) ○ "APRA […] has three main types of powers in regulating financial institutions: authorisation or licensing powers; supervision and monitoring powers; and powers to act in circumstances of financial difficulties to protect depositors, policy holders and superannuation fund members, including powers relating to taking control of entities and/or winding up insolvent entities." (ibid)

Table 3
Australian Securities and Investments Commission (ASIC)

History and Origins	- Australian Securities Commission (ASC) was established in 1991, replacing the National Companies and Securities Commission (NCSC) - In 1998, ASC was renamed the Australian Securities and Investments Commission (ASIC) o Given responsibility for consumer protection in superannuation, insurance and deposit taking - Constituted under the *Australian Securities and Investments Commission Act 2001* (ASIC Act) - 2010: ASIC is given "additional responsibilities for regulating trustee companies, consumer credit and finance broking and for supervising trading on Australian licensed equity, derivatives and futures markets" (ASIC 2019b)
Legislated Mandate	- Markets: ensuring that markets operate in a fair and transparent manner - Corporate: ASIC Is tasked with "ensuring that company directors and officers carry out their duties honestly, diligently and in the best interests of their companies" (Cooper 2006, 7) - Financial services: licensing and monitoring financial services firms to ensure that they are operating efficiently, honestly and fairly - Consumer credit: licensing and regulating consumer credit activities by individuals, firms (ASIC 2019a)
Internal Structure	- The Commission – made up by the Chairman, Deputy Chairman, and Members – is responsible for the exercise of ASIC's functions and powers, ASIC's strategic direction and its priorities - Management Committee, Audit Committee, Risk Committees (Emerging Threat and Harm Committee and Operational Risk Sub-Committee, Operational Risk Sub-Committee), Enforcement Committee, Regulatory Policy Committee, Regulatory Issues Committee (ASIC 2019c)
Reporting and Accountability	- Independent statutory body of the Commonwealth of Australia - Reports to Parliament through the Treasurer of Australia, the minister responsible for oversight - Satisfies requirements under the *Public Governance, Performance and Accountability Act* (PGPA Act) - Reports annually against the *Regulator Performance Framework* - A Statement of Expectations – periodically updated and issued by the Treasurer – sets out the Government's expectations about ASIC's role, responsibilities, transparency, and accountability o ASIC is formally required to issue a Statement of Intent, detailing its response to the Statement of Expectations (ASIC Capability Review Panel 2015) - Annual report Issued and tabled in Parliament (ASIC 2019d) - The Government reviews ASIC's annual budget, approves the levies that are imposed on industry each year to fund ASIC's operations (ASIC 2018)

Compliance Mechanisms and Approach	- Risk-based approach to regulation
	  o Identification and assessment of risk, focus on areas of greatest concern (Cooper 2006)
	- "ASIC has general powers to protect consumers against misleading or deceptive and unconscionable conduct affecting all financial products and services" (Cooper 2006, 7)
	- ASIC's compliance mechanisms:
	  o Register and grant licenses to diverse financial system actors
	  o Grant relief from certain provisions of the legislation administered by ASIC
	  o Maintain publicly accessible registers of information about registered entities and licensees
	  o Implement rules and regulations to safeguard the integrity of financial markets
	  o Stop the issue of financial products under defective disclosure documents
	  o Investigate suspected breaches of the law and issue infringement notices
	  o Ban people from engaging in credit activities or providing financial services
	  o Seek civil penalties from the judiciary (ASIC 2019a)

Table 4
Sweden: Finansinspektionen (FI)

History and Origins	- Established in 1991 - Merger of Private Insurance Supervisory Service and Bank Inspection Board (FI n.d.-c) - Played pivotal role during the severe banking crisis of the early 1990s[4]

Legislated Mandate	- Authorizes, supervises, and monitors all firms operating in the Swedish financial system (FI n.d.-a)
	  o "Supervised entities include banks and other credit institutions, insurance companies, insurance brokers, mutual benefit societies, securities and fund management companies, stock exchanges, authorized marketplaces and clearing houses" (IMF 2017, 10)
	- Market conduct
	- Consumer protection
	- Microprudential and macroprudential supervision, including a financial stability mandate
	  o FI was given macroprudential responsibilities in 2013 (IMF 2017)
	  o However, "FI's macroprudential mandate rests on thin legal foundations" (IMF 2016, 29)
	  o There is a "lack of separation of responsibilities between FI and government" (Ibid)
	  o The Riksbank also has a financial stability mandate; its role is unclear (IMF 2016)
	- Specific goals are set out annually in an Appropriations Letter from the Swedish government (see for example 'Finansinspektionen's letter of appropriation…', 2017)

Internal Structure	- Headed by a Board of Directors, Director General (DG) and Deputy DG - Under the DG: Economic Analysis Office, General Counsel, Senior Advisors - Under the Deputy DG: Communications, HR, Administration (IMF 2017) - Four areas of operation: Banks, Insurance, Markets and Consumer Protection (FI 2014, IMF 2017) o "FI operational units are organized under separate Executive Directors, which provide a degree of insulation and helps ensure that groups such as Banking or Insurance have a group of staff that are dedicated to their particular mandate" (IMF 2017, 19)
Reporting and Accountability	- Independent agency of the Government of Sweden under the Ministry of Finance - Appears before Riksdag committees - Annual appropriations letter from the government provides FI with its budget of funds, stipulates specific assignments (see for example "Finansinspektionen's letter of appropriation", 2017) o Despite concerns about operational independence, "FI reports that [since 2011] its independence has been strengthened and it is better able to allocate resources and set its own priorities within the overall budget ceiling set by the Government" (IMF 2017, 12) - Issues an annual report, in which FI details how it will perform its assignments (FI n.d.-b) - Regularly issues numerous reports on specific subjects (see FI n.d.-d)
Compliance Mechanisms and Approach	- "FI's Supervision Strategy is risk-based. It ranks firms based on their importance to the system, markets, and consumers, and the allocation of resources is made according to this risk-ranking." (IMF 2017, 21) o FI's risk-based approach has two parts: "a risk assessment process and a risk classification. The risk assessment process identifies and ranks the biggest risks, while the risk classification ranks the firms based on where problems are considered to have the greatest potential to produce negative consequences for consumers or the national economy." (FI 2014, 3) - "FI may issue regulations only in areas specifically vested by a law or ordinance, resulting in long delays in regulations. Swedish law requires the power to issue regulations to be specifically vested in an authority. 'Catch-all' provisions may only be used to issue non-binding policy guidance." (IMF 2016, 32) - FI currently lacks the authority to implement macroprudential measures; it cannot independently adopt and change regulatory instruments to address systemic risk (IMF 2017)

[4] Note that FI was *not* created in response to the banking crisis of the early 1990s. Instead, "the formalization and expansion of financial supervision in Sweden does not seem to be distinctly or solely connected to the event of a financial crisis. Changes in the supervision, in terms of jurisdiction, resources and organizational structure, seem to have been made more often when the market has changed, rather than as a direct response to crises" (Wendschlag 2012). The author then cites the creation of FI in 1991 as an example.

Conclusion

This paper has presented and analysed the four principal models of regulatory architecture in finance. We argued that a country's choice of model matters because it lays the ground rules by which supervision and regulation happen. The architecture, however, does not dictate – or necessarily lead to – regulatory effectiveness, which originates from the ways in which regulators are able to pursue their mandate. We sustained this argument by comparing the Canadian, Australian and Swedish cases, as effective regulators can be found in each country, despite the fact Canadian, Australian and Swedish authorities have chosen to implement different architectures. The key common feature across these three cases is the clear demarcation between prudential and market conduct supervision. This division is most evident in Australia's twin peak model, but it is also a feature of Canadian and Swedish regulatory models.

There are many avenues for further research in this field. First, the number of cases to be compared could be expanded to aid with generalizability. We selected Canada, Australia and Sweden because it allowed us to use a most-different approach based on the architecture in place in each country. At the same time, there are similarities across these cases that could bias the results. Canada, Australia and Sweden are all mid-sized countries in global finance, and each has a relatively large and concentrated banking sector. Regulatory effectiveness may not play out the same way in countries where the structure of the financial market is different. Also, the regulatory architecture may account for market specificities in each country. The second area in which more research could be conducted is measuring regulatory performance and effectiveness in finance, a long-standing issue that needs to be tackled. As previously stated, this paper assumed that Canadian, Australian and Swedish regulators are effective; this assumption may be erroneous, but it is tremendously difficult to test in a comprehensive fashion via quantitative empirical methods. Finally, we note that the models of regulatory architecture discussed in this paper are ideal-types. There remain important variants across countries due to historical factors, different constitutional and legal environments, and established practices. These details may matter in terms of how regulators pursue their mandate. These models also ought to evolve to better incorporate macro-prudential considerations.

More than ten years following the 2007-2008 crisis, the world has again been lulled into thinking that financial crises are the exception rather than the norm. The reform impetus that characterized the post-global financial crisis has waned significantly. Yet, a great deal of further research and work is still required to ensure safe, secure and fair financial markets. Beyond broad policy initiatives, regulators remain the core actors of this system. As such, the results of this research provide an important glimpse into the effectiveness of regulators under different models of regulatory architecture.

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