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The Politics and Economics of Financial Instability

There is an old joke in the banking industry, told and retold at cocktail parties and conferences, about the "3-6-3 plan." It goes something like this: bankers should pay depositors a 3 percent interest rate, issue loans at 6 percent, and head to the golf course by 3 o'clock. The joke now comes with a whiff of nostalgia for the old days of banking, in which financial intermediation was viewed as a relatively boring industry that provided simple financing for customers and predictable middle-class careers for bankers.

But even in its simplest form, banking has always been an endeavor fraught with danger. A bank's managers, hidden behind marble façades and mahogany desks, can extend loans to risky borrowers, thereby jeopardizing the stability of the bank if the borrowers fail to repay. As memorable scenes from the films *It's a Wonderful Life* and *Mary Poppins* remind us, trust in a bank can evaporate quickly, and nervous depositors can withdraw their funds en masse and cause a bank to collapse. One bank failure can lead to the next, causing disruption to the entire financial system. In fact, the annals of US history include more than a dozen named "panics" all resulting from bank failures. One particular crisis, known as the Panic of 1907, was so severe that the US Congress created a new central bank, the Federal Reserve, to try to prevent future crises.[1] And in the last decade, the Great Recession – in which multibillion-dollar financial institutions like Lehman Brothers, Bear Stearns, and AIG

[1] On the panic of 1907, see Friedman and Schwartz 1971, 156–68. On the founding of the Federal Reserve, see Broz 1997; Grossman 2010, 243–5; White 1983, chap. 2; Wood 2005, 158–66.

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either collapsed or required emergency bailouts – taught us that banking systems remain vulnerable even as they become more sophisticated and global in scale.[2] Clearly, there is something precarious about the process of banking, whether it is the simple 3-6-3 variety of the old days or the more complex modern-day variety.

It is an unfortunate feature of modern societies that bank failures happen regularly. When banks collapse, entire economies can be thrown into disarray.[3] Banks are the critical link between savers and borrowers and the drivers of economic activity.[4] When banks collapse, credit becomes scarce and the process of mobilizing a society's savings grinds to a halt. In the wake of a banking crisis, businesses that previously relied on banks for their day-to-day working capital must cut back on their operations, shrink their balance sheets, and possibly reduce their workforces. Similarly, individuals must hold off on purchasing homes, automobiles, and other consumable goods. In the aggregate economy, consumption and investment plummet, the real estate market collapses, unemployment rises, and currencies crash as international investors run for the exits.[5] Political leaders may also face dire consequences if the public blames them for lax supervision or negligence.[6]

No country is immune from the devastation of a banking crisis. In the 1990s alone, countries including Finland, Indonesia, Japan, South Korea, Sweden, and Thailand all experienced severe crises. In the 1980s, the casualties included Argentina, Chile, Mexico, and Norway, among many others. In all of these cases, the consequences to the broader national economy were severe, sometimes enduring for many years.

[2] See Woll 2014.
[3] See Barth, Caprio, and Levine 2008, 2.
[4] Grossman 2010, chap. 1.
[5] Reinhart and Rogoff 2009b, 145–6.
[6] See Ahlquist, Copelovitch, and Walter forthcoming; Chwieroth and Walter 2015a, 2019; Crespo-Tenorio, Jensen, and Rosas 2014; Funke, Schularick, and Trebesch 2016; Genovese, Schneider, and Wassmann 2016; Hernández and Kriesi 2016; Hobolt and de Vries 2015; Pepinsky 2012; Rosas 2006, 2009; Trebbi, Mian, and Sufi 2012; Walter 2013. On the connection between protest and transparency, see Hollyer, Rosendorff, and Vreeland 2015. On the political consequences of the Eurozone crisis, see, e.g., Accornero and Pinto 2015; Alt, Lassen, and Wehner 2014; Armingeon and Guthmann 2014; Bechtel, Hainmueller, and Margalit 2014; Bellucci 2014; Bulmer 2014; de Vries 2018; Dinas and Rori 2013; Fernandez-Albertos and Kuo 2016; Hobolt and de Vries 2016; Hobolt and Wratil 2015; Howarth and Quaglia 2014; Katsanidou and Otjes 2016; Matthijs and Blyth 2015; Matthijs and McNamara 2015; Schneider 2019; Walter 2016.

Every region of the world has at least one identifiable "lost decade" of economic stagnation associated with a banking crisis.[7]

Why do banking crises occur? Existing political science research on the causes of crises is limited, as scholars have focused overwhelmingly on the political consequences of and policy responses to crises.[8] Our goal in this book is to focus a political lens on the question of causes, while maintaining a close eye on the economic drivers of financial instability.

We begin with a simple observation: banks collapse because their customers lose confidence in them. Even in the old-fashioned 3-6-3 model, banks engage in a high-wire act known as "maturity transformation": they accept short-term loans from customers in the form of deposits that can be withdrawn at any time, and extend long-term loans to businesses and consumers.[9] As long as customers have confidence in the safety of their savings, banks will have enough funds on hand to cover all withdrawals and the process of maturity transformation can continue without disruption. But if customers begin to doubt the solvency of a bank – perhaps because they fear that many of those 6 percent loans will not be repaid – they withdraw their funds in a so-called run and quickly exhaust the bank's supply of liquid assets. A run on one bank can lead to a run on another until the entire banking system is bankrupt.

In sophisticated banking systems, bank runs might not have the appearance of a mob of customers lined up outside, waiting anxiously to withdraw their funds. Instead, bank runs are often perpetuated by other financial institutions in a manner invisible to the person on the street. For example, when Lehman Brothers, formerly one of Wall Street's most prestigious investment banks, declared bankruptcy in 2008, other banks that conducted business with Lehman incurred substantial losses. Banks and hedge funds with large holdings of Lehman corporate bonds – which were virtually worthless after the bankruptcy – found themselves struggling to stay afloat, which in turn made their own banks wary of extending loans to them. As uncertainty about the stability of the financial system grew, banks became wary of providing support to each other. Banks with extra cash simply hoarded it rather than lend it to other banks with short-term funding needs, because they had scant confidence that

[7] Chinn and Frieden 2011.

[8] See footnote 6 for references. For research in political science on the causes of banking crises, see Bauerle Danzman, Winecoff, and Oatley 2017; Drezner and McNamara 2013; Jordana and Rosas 2014.

[9] See Rethel and Sinclair 2012, 16.

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those other banks would still be standing the next morning.[10] As interbank lending plummeted, banks were forced to turn to their national central banks for emergency liquidity support. In the absence of angry customers queuing up outside their banks, a spectator walking down to Wall Street through midtown Manhattan would see no evidence that such a devastating bank run was in progress (except, perhaps, for an errant sweaty-palmed banker scurrying back from lunch).

The events that trigger a crisis of confidence in the banking sector are often the stuff of legend. Consider the Panic of 1907, in which the founders of United Copper Company tried to corner the market in their own stock and head off a speculative attack. During the summer of that year, copper magnate F. Augustus Heinze learned that speculators were selling United Copper's stock short – a strategy in which investors sell a borrowed stock at today's price with a commitment to purchase the shares at a later date, hopefully at a lower price. In essence, the market appeared to be betting that United Copper's shares would plummet. Heinze and his brother developed a scheme to bid up the price of the stock and thereby punish the speculators, turning their expected profit into a debilitating loss. With financing from New York banks, the Heinzes were initially successful in boosting United Copper's share price, but the scheme quickly fell apart as the stock plunged in value and the short-sellers happily reaped their expected gains. The banks that assisted the Heinzes in their ill-fated attempt at stock market manipulation suffered severe losses, and depositors rushed to withdraw their funds from any bank associated with the Heinze family. What began as a fiasco over a single traded stock turned into systemic nightmare as one bank run led to another, Wall Street became paralyzed, and the City of New York teetered on the brink of bankruptcy.[11]

Behind the sordid details, most crises have a common feature: banks fail because of their risky behaviors. The triggers of banking crises can vary from case to case, but rarely does confidence in the banking system evaporate without due cause. In 1907, banks collapsed because they were complicit in speculation and market manipulation that led to financial losses throughout the financial system. During the Asian financial crisis of the late 1990s, the trigger for the collapse of Thai banks was speculative lending to real estate developers that led to a boom and then a devastating bust in the real estate market. And in 2008, in the United States and Europe, after a decade of easy mortgages to borrowers with

[10] See Gorton and Tallman 2018.
[11] See Bruner and Carr 2008.

shaky credit histories and a growing bubble in the real estate market, investors grew fearful that banks and the holders of mortgage-backed securities might never get their money back.

Sordid details no doubt make for good reading, and this book makes an occasional attempt to indulge the reader accordingly. However, the goal of this book is explanation. We seek to understand why some countries are more prone to banking crises than other countries or at different times. Our focus sets us apart from much of the social science research that focuses on the consequences of banking crises rather than their causes. We zero in on the political decisions that shape the structure of financial markets and the international economic forces that make certain countries especially vulnerable to financial instability. Our approach is comparative and multimethod, relying on both statistical analysis and detailed historical case studies of two key countries: Canada and Germany. We draw upon data from the 1970s through the early twenty-first century for most of the world's developed economies, and we compile detailed historical narratives to explore how governments embark, often inadvertently, on divergent financial development paths.[12] Our quantitative empirical analyses include macro-level investigations of the correlates of banking crises across developed countries, as well as micro-level studies of the drivers of banks' risk taking.

By casting such a broad net, we deliberately part company with much of the existing case-study literature. There are plenty of books that chronicle the particular features of a notable crisis, including the Panic of 1907,[13] the Great Depression of the 1930s,[14] the US savings and loan crisis of the 1980s,[15] Britain's secondary banking crisis of the 1970s,[16] and the Great Recession since 2008.[17] By attempting to isolate the political and structural incentives that give rise to crises, we sacrifice the granular detail of these books in favor of developing an analytical explanation that can be applied across countries and time.

Some readers might question the timing of this book, which arrives (at least as of this writing) during a time of relative financial stability throughout the world. Bank supervision has been tightened since 2010,

[12] On inadvertency in financial development trajectories, see Krippner 2011, 2.
[13] Bruner and Carr 2008.
[14] Bernanke 2000.
[15] Lowy 1991.
[16] Reid 1988.
[17] See, e.g., Blinder 2013; Johnson and Kwak 2011; Lewis 2010; Sorkin 2010; Tett 2009; Tooze 2018.

and governments are generally unwinding their various bailouts and interventions – monetary and financial – which helped to contain the crisis.[18] In our view, this is an opportune time to write a book on bank failures, precisely because we are bucking the trend in the social sciences to react to current events rather than portend future ones. To be sure, we do not make specific predictions in this book; rather, we highlight the enduring features of financial systems and the sometimes volatile nature of global finance as triggers of bank failures. These triggers are just as relevant, and even more potent, today as they were five, fifty, or a hundred years ago.

Banking is an inherently political activity, but not in the way that many observers might imagine. Granted, bankers themselves have political preferences and may express them publicly, and some banks lobby for favorable public policies and donate to political campaigns and political action committees. But at a deeper level, banks are embedded in financial markets, which themselves reflect an accumulation of government choices. Banks today operate in an environment shaped by these choices, some of which make banks more resilient, others of which make them more prone to crisis.

We began this investigation of banking crises by exploring the influence of a number of variables that constitute the usual suspects in political economy research, including the partisanship of the government, the degree of fragmentation of decision making across the branches of government, the extent of state ownership of financial institutions, the scope and configuration of regulatory agencies, and the stringency of regulations themselves. We also explored exchange rate policy, capital account policy, and the applicability of national models of capitalism from the varieties of capitalism (VoC) literature.[19] The results from these early explorations were frustrating. Banking crises, like many forms of cancer, are a blight that afflicts victims without regard to their year-to-year or even decade-to-decade choices. Indeed, Reinhart and Rogoff call them an "equal opportunity menace."[20] They occur when pro-market governments are in charge, and when democratic socialists are at the helm.[21] The widely accepted categories from VoC scholarship are

[18] See Chinn and Frieden 2011, chap. 5.
[19] Hall and Soskice 2001.
[20] Reinhart and Rogoff 2009b, 147.
[21] Some evidence exists for a "partisan financial cycle" in which left-leaning parties tighten financial regulations and right-leaning parties loosen them. See Broz 2013.

similarly unhelpful in explaining variation.[22] Indeed, Canada and the United States – both liberal market economies with many other shared political attributes – are polar opposites when considering bank stability. Canada has not suffered a crisis in decades, whereas bank failures are a common, even mundane, occurrence in the United States.

Our investigation took us deeper into the structure of financial markets. Spurred by the story of the Heinze family's schemes in 1907 and similar historical episodes in Germany, we noticed that stock markets were implicated in many bank failures across countries and time, and we began to explore whether these markets had a systematic influence on bank behavior. We found that banking and securities markets are strange bedfellows. When securities markets are deep and sophisticated, banks often rely on them for financing and are enticed by new revenue streams, such as selling off mortgage loans that are bundled as securities. But banks also face competition from these markets as businesses choose to bypass traditional lending in favor of stock and bond offerings. These two influences – direct involvement in securities markets and competition from them – can lead banks to take on more risk.

Our investigation also centered on the main smoking gun in the economics literature on banking crises: capital inflows. A common precursor to crises is a sustained current account deficit, representing a surge in capital from foreign countries.[23] The link between capital and crises is complicated, involving an expansion of lending, rising asset prices – including real estate and stocks – and an eventual crisis of confidence in the banking system which causes the bubble to burst. As we learned from the existing literature, capital inflows are associated with various forms of financial mischief, but not always. Some banking systems seem capable of accommodating sustained surges without becoming riskier or more prone to failure. As we flesh out below, we argue that the relative prominence of securities markets is critical in determining whether foreign capital is channeled safely through the domestic economy, or whether it causes the various distortions that ultimately lead to a banking crisis.

[22] See Konzelmann, Fovargue-Davies, and Butzbach 2013.

[23] Reinhart and Reinhart 2008; Reinhart and Rogoff 2009b. See also Bauerle Danzman, Winecoff, and Oatley 2017; Jordà, Schularick, and Taylor 2011. On the link between capital inflows and the broader concept of "financialization," see Krippner 2011.

UNDERSTANDING BANKING CRISES: NATIONAL MARKET STRUCTURE AND INTERNATIONAL CAPITAL

To explain why banks fail, we must first understand their incentives to take on risk – or perhaps to take on too much risk. The fundamental purpose of any financial system is to channel funds from savers to borrowers, thereby enabling businesses, entrepreneurs, consumers, and sometimes governments to access capital for investment and consumption. Banks stand in the center of this process, providing savers a place to earn returns on their excess funds and offering borrowers access to much-needed financing. Regardless of the financial system, banks face a fundamental challenge known as "asymmetric information." Any potential corporate borrower is necessarily more knowledgeable about its own financial stability – including its income streams, market conditions, investment decisions, and managerial competence – than the bank's credit officers. As a result of asymmetric information, banks always face difficulties in discerning the ability and willingness of potential borrowers to repay their debts in the future. This leads to the possibility of a lending mistake of either the Type 1 or Type 2 variety: a non-creditworthy borrower could succeed in obtaining a loan and then fail to repay, or a creditworthy borrower could be denied a loan. Both types of errors are consequential. The first type is the more dramatic of the two, as multiple loan defaults could jeopardize the solvency of the bank. However, the second type reflects a societal deadweight loss, forgone revenue for the bank's managers, and (arguably) a failure to maximize shareholder value.

Banks must continually evaluate their risk appetites and lending criteria based on market conditions, corporate strategies, and prevailing regulations. As any homebuyer knows, some banks offer better mortgage rates than others, and the banks that offer the most competitive rates today might not be the most competitive in the future. This variation exists across countries as well. A borrower with a poor credit history who is precluded from obtaining a mortgage in Canada could be considered an acceptable candidate for a loan if she resided in the United States. Some banks take on substantial risk and accept the possibility of a default (a Type 1 error), all with the expectation of greater profits. Other banks err on the side of prudence and would rather make a Type 2 error if it ensures the bank's stability in the long run.

At the national level, what are the factors that determine how a bank will resolve this balancing act? In this book, we explore two dimensions

of variation: the structure of national financial markets, which reflects a country's history of political decisions and rarely changes from year to year or even decade to decade; and the composition and magnitude of capital inflows from the rest of the world. In short, we argue that banks engage in riskier behavior when they compete alongside well-developed national securities markets. Capital inflows amplify this risk and increase the chance of a banking crisis.

The Structure of National Financial Markets

The first source of variation is what we label the structure of national financial markets. We use the word "financial" and not "banking" because we are interested in the characteristics of the entire system, not just banks. The landscape of national financial systems varies considerably from country to country across countless dimensions. For example, in Germany "universal banks" offer traditional banking services as well as stock and bond underwriting and insurance products, whereas other governments impose restrictions on the ability of any one firm to offer all of these services. Some countries have large, deep, and sophisticated markets for stocks and bonds, such as Finland and the United Kingdom, whereas traditional bank loans – fueled by bank deposits – dominate the financial landscape in countries such as Denmark and New Zealand. The relative degree of fragmentation is also highly variable across countries. Foreign visitors to the United States are often surprised to learn that there are nearly 7,000 federally insured banks in the country. In Canada, the so-called Big Five banks dominate the market.[24]

We argue that the relative size and depth of securities markets are of particular importance for bank stability.[25] These markets allow companies to seek capital directly from investors rather than rely on an intermediary. A firm can issue stock via an initial public offering or a secondary offering and thereby provide ownership rights in exchange for funds. Firms can also issue bonds, which promise payments and interest to the investor over a specific period of time. Securities can quickly

[24] On cross-national variation in banking systems, see Allen and Gale 2009; Demirgüç-Kunt and Levine 2004; Hardie and Howarth 2013.

[25] Note that the sophistication of securities markets is a more focused concept than financialization, which reflects a "broad-based transformation in which financial activities (rather than services generally) have become increasingly dominant." Krippner 2011, 2.

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become complicated as financial markets develop: firms can issue hybrid securities with characteristics of stocks and bonds, and financial institutions can issue derivatives whose value is derived from an underlying asset or a previously issued security.

Companies issue securities and borrow from banks for similar reasons: to expand their operations, invest in infrastructure and human capital, and so on. For our purposes, it is reasonable to think of bank loans and securities as alternative methods of financing a business.

Businesses that wish to raise funds through securities markets may often do so without the assistance of a commercial bank. In contrast to bank loans, securities are highly impersonal and "arms-length."[26] Whereas a bank cultivates relationships with its depositors and borrowers, securities are often considered to be a manifestation of disintermediation in which banks are pushed aside in favor of direct transactions between investors and businesses. Banks sometimes play a role in this process as a broker, dealer, or underwriter, helping to match buyers and sellers of securities and maintaining a sufficiently liquid market for doing so. However, unlike a loan which inherently depends on a relationship between a bank and a borrower, a security does not require such a relationship. A holder of a company's stock has a direct (but largely impersonal) relationship with that company. Indeed, it is not uncommon in the United States for individual investors, especially of a certain age, to keep their company-issued stock certificates in a desk drawer. Only if they wish to sell the stock will they seek the services of a bank or broker.

The arms-length nature of securities markets has important implications for risk management. In highly liquid markets, investors can generally sell their financial instruments at the market-clearing price. The disparate holders of securities therefore have fewer incentives to monitor a firm's managers than a bank with long-term illiquid assets.[27] If new unfavorable information about a firm's prospects comes to light, investors can simply dump their shares and move on. This ease of exit suggests that investors will be relatively risk-acceptant in entering the market. Firms with high-risk, high-reward value propositions will realize better financing outcomes by issuing securities directly to investors rather than by seeking loans from conservative banks. The potential dangers are borne by the entire financial system. When investors are myopic because of their ability to exit, risk can accumulate throughout

[26] Rajan 1992.
[27] See Beck et al. 2001; Diamond 1991; Rajan 1992.

the financial system, and generally there is no agent responsible for overall management of "systemic risk."[28] The dangers are greater in more developed markets, as opaque chains of complex securities can impair the ability of even the most sophisticated investors to gauge the level of risk in the financial system.[29]

It would be unrealistic to expect that banks will stand aside insouciantly as firms bypass them in favor of securities markets, or what is often called the "non-bank financial sector." It seems more reasonable to expect that banks in countries with large financial markets will feel pressure to take on more risk in an effort to maintain their customer bases and their profits.[30] In other words, we expect the conservative bias in bank behavior to erode as securities markets become more prominent in the national financial system.

The increase in bank risk can take many forms. Most obviously, banks can make riskier loans, and more of them relative to their capital bases. As one example, consider the plight of the US banking industry in the 1980s, a time when companies were increasingly seeking the assistance of securities firms, finance companies, and other non-bank financial institutions for their financing needs. To maintain their profitability in the face of this stiff competition, banks extended increasing amounts of credit to real estate developers, historically considered a relatively risky industry, and other borrowers with shaky credit histories.[31] They allowed their loan-loss provisions – cushions of funds that support banks when borrowers fail to repay – to fall to precarious levels.[32] They also became more tightly tethered to stock markets by extending loans to support corporate takeovers and leveraged buyouts.[33]

As securities markets become a larger competitive threat, some banks – and some national banking systems – will begin to look more like securities firms. For example, banks can issue loans and then securitize those loans and sell them off to individual and corporate buyers. They can also derive more of their income from non-interest-income activities, also known as off-balance sheet activities, such as dealing in derivatives or investing their own funds in speculative investments.[34] These

[28] On systemic risk and macroprudential regulation, see, e.g., Borio 2003; Freixas, Laeven, and Peydro 2015; Tucker 2018.
[29] Gorton 2009.
[30] On competitive pressures from securities markets, see Porter 1993, 95.
[31] See, e.g., Sprague 1986.
[32] See Singer 2007, chap. 3.
[33] Edwards 1996, 38.
[34] Barth, Caprio, and Levine 2012, 66–7; Edwards 1996, 40.

"market-based banks" blur the line between commercial banking and securities markets, and therefore their fates – not just their profitability, but their stability – depend on securities market conditions.[35]

On the other hand, banks can also gamble for their profitability using traditional means. Wells Fargo, a long-standing California-based bank with a nationwide presence in the United States, had virtually no involvement in investment banking in the years up to the global financial crisis. To remain profitable, it extended real estate loans to risky borrowers and ultimately required a massive bailout by the US Treasury.[36] There was little about Wells Fargo's behavior that prima facie suggested that it was reacting to competition from the non-bank financial sector; indeed the bank had and continues to have a reputation as a relatively unsophisticated brick-and-mortar institution, not a high-flying financial innovator. However, the entire financial landscape is critical in explaining its behavior. As we argue in this book, securities markets can incentivize even the most traditional banks to take on more risks, even if those risks do not appear to be closely tied to securities markets.

A key contribution of this book is to highlight the political origins of financial market structure.[37] Both banking and securities markets require "affirmative acts of policy design."[38] During a banking system's formative years, government policy is particularly relevant for chartering – the process of granting an operating license to a bank and dictating the terms of its operation within the country. For securities, rules pertaining to disclosure of information, fraud, and exchange are most critical. To understand the relative prominence of banks vis-à-vis securities markets today, we must identify the key political decisions in these areas, which often occurred over a hundred years ago. The context of these decisions – or sometimes indecisions – differs from country to country but generally involves the thorniest challenges in a country's early political development, including the political and economic integration of subnational regions, the shedding of colonial rule, and the financing needs of the country's industries.

The reader should not take for granted our argument that government policies are critical for setting the groundwork for either a vibrant,

[35] Adrian and Shin 2010; Hardie et al. 2013.
[36] Johnson and Kwak 2011, 165–80.
[37] As Posner argues, "Arrangements for distributing capital, even when based on markets, are political institutions." Posner 2009, 6. On the connection between political science and securities market development, see Sobel 1994.
[38] Jacobs and Teles 2007, 158–9.

nationwide securities market or a limited, regionally fragmented one. There are indeed many studies of the politics of bank regulation, including the political economy of bank branch restrictions in the United States, which at least implicitly acknowledge that the government can either facilitate or hinder the development of a national banking market.[39] However, as we embarked upon the historical research for this book, we were frustrated to find a common assertion, especially in US economic history, that securities markets emerged and flourished because the banking system provided insufficient capital for industrialization.[40] To summarize these arguments more plainly, securities markets emerged and matured when they were needed. While there may be some truth to these functionalist accounts of markets, there is an inherent tension in scholarly research that privileges the role of politics in banking but downplays or ignores its role in securities. If the demand for capital by a country's industries is not, by itself, influential enough to overcome the political wrangling that splinters banking markets, why would that same demand so easily triumph over any political resistance to securities market development?

The contrast between the United States and Canada, which we delve into more deeply in Chapter 4, is instructive on this point. Both countries had similarly fragmented, thinly regulated stock markets leading up to the Great Depression, along with industries that were eager to attract capital directly from investors rather than banks. In the 1930s, the US government created the Securities and Exchange Commission, harmonized trading and disclosure rules across regional markets, and imposed strict anti-fraud requirements. At the time, these policies seemed punitive in their stringency, but they ultimately eased investors' concerns about the integrity of their investments and allowed securities markets to lower the cost of capital for industry in the ensuing decades. Canada, on the other hand, took no substantial steps toward reining in its disparate provincial stock markets. Its markets remain regionally fragmented today, and it has the dubious distinction of being the only industrialized country without a national securities regulator.

The importance of political history in the forging of national financial systems is important for us in two other ways. First, the path dependence

[39] See, e.g., Bordo, Redish, and Rockoff 2015; Bordo, Rockoff, and Redish 1994; Calomiris and Haber 2014; Kroszner and Strahan 1999.

[40] See most notably Allen and Gale 2000.

of financial markets challenges the common refrain that risk-hungry foreign investors trigger short-term domestic financial innovation.[41] In one variant of the "search for yield" story, domestic markets concoct suitably high-yielding investment products, like asset-backed securities, to satisfy the demands of investors who face an otherwise low-interest-rate environment. We argue instead that the stickiness of financial market structure makes the creation of new and riskier financial products far more difficult for underdeveloped securities markets. For example, Canada's financial system, with its provincially fragmented securities markets, will be relatively flat-footed compared to Britain's highly developed market in responding to investors' demands for higher-yielding products. It is for precisely this reason that the interaction between foreign capital and domestic financial structure is so critical for financial stability. A financial system dominated by banks will be a bulwark against the destabilizing influence of foreign capital, whereas a system with relatively prominent securities markets will amplify these risks.

The second reason why path-dependent financial trajectories are important to our study is that we are justified in using market structure as an exogenous explanatory variable in our quantitative analyses of contemporary banking crises. In other words, we take market structure as given because contemporary forces are unlikely to shift the landscape enough to jeopardize our inferences about the triggers of bank instability.

We delve deeply into two historical case studies to show how the accumulation of political decisions has led directly and sometimes inadvertently to markedly different financial systems. Our studies of Canada (Chapter 4) and Germany (Chapter 5) support the notion that financial market structure is historically contingent and slow to change. Interest groups based on industrial sector, geography, and sometimes cultural or linguistic heritage all jockey for position during a country's early economic history. Canada's natural resource industries were eager to maintain the flow of speculative capital for mining, oil prospecting, and other high-risk endeavors, and therefore resisted the imposition of onerous disclosure regulations and a national securities regulator, which later proved to be the sine qua non of modern securities markets. In Germany, banks initially had a privileged position as the sole providers of capital to businesses, with little reason to support the creation of

[41] On path dependence and development trajectories, see Levi 1997; Mahoney 2001; Pierson 2004; Thelen 2004.

regional or national securities markets. Interest groups, political parties, and anti-Semitism all played a role in restricting the development of stock markets from the late nineteenth century through World War II. These markets remained thin through the 1980s. However, in more recent times, as large banks faced a competitive threat from regional and foreign banks, they shifted their support in favor of financial market creation, spurring growth in Germany's stock markets.

In establishing the political history of securities market development, our case studies also cast doubt on alternative arguments about the causes of banks' risk taking and the determinants of banking crises. For example, some commentators point to Canadian banks' conservative culture as a reason for Canada's history of financial stability. We find, instead, that Canada's successive national and provincial governments since the late 1800s have enacted policies that hinder the development of the country's stock markets. Conservative behaviors that others attribute to culture we attribute to the structure of financial markets, which allows banks to maintain their dominant position in the financial landscape without taking on excessive risks.

The International Dimension: Global Capital

Foreign capital inflows are a mixed blessing. In theory, international financial integration brings similar benefits to the domestic allocation of capital between savers and borrowers. Countries can borrow from other countries to smooth their incomes, invest in infrastructure and other projects, and offset trade deficits. International investment also allows for diversification and optimization by sending capital to where it is most needed and most rewarded. Despite these theoretical benefits, global capital has a reputation for causing much strife in the world. Investors often reward countries for enacting unwise policies, and they are trigger-happy in pulling out their capital if a country faces an economic downturn. Curiously, as many scholars have noted, capital often flows uphill from emerging market countries (where capital is presumably scarce) to the industrialized world (where it is abundant).[42] What should in theory constitute a global stabilizing influence in fact becomes a force for instability and distortion.[43]

[42] See Lucas Jr. 1990; Prasad, Rajan, and Subramanian 2007.
[43] Borio 2014.

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The dangers of foreign capital inflows can take many forms. For emerging market countries, foreign capital often arrives via a currency mismatch as banks borrow dollars (or another leading currency) from foreign banks in order to grant loans to domestic residents in the national currency. If the value of the national currency falls with respect to the dollar, banks on both sides of the transaction can suffer debilitating losses. For developed economies, exchange rate uncertainty is a less serious concern, but capital inflows are potentially destabilizing if they trigger a lending boom that causes an asset price bubble. Bankers themselves commonly describe an erosion of conservative risk management as capital flows in, often because a drop in interest rates prompts a precarious search for higher yields.[44] As the real estate market booms, commodity prices increase, and stock markets soar, banks tend to get swept up in the momentum and their choices come back to haunt them.

Many scholars believe that the malignancy of global capital – as reflected in current account deficits – is the most likely culprit behind banking crises.[45] In their analysis of the Great Recession, Chinn and Frieden point to the enduring prevalence of the capital flow cycle, in which "capital floods into a country, stimulates an economic boom, encourages high-flying financial and other activities, and eventually culminates in a crash."[46] They note that many previous crises fit this pattern, including the Mexican crisis of 1994, the Asian financial crisis of 1997, and dozens of others. Reinhart and Rogoff's *This Time Is Different* suggests that the pattern has deep historical roots.[47] One of their key findings, backed by data covering 800 years of financial crises, is that large current account deficits, asset price bubbles, and excessive sovereign borrowing are common precursors of crises across countries and throughout time. Moreover, bank failures were relatively rare during the Bretton Woods monetary system from the end of World War II to the early 1970s, when governments enacted strict controls on capital movements.[48] This overall finding – that foreign capital opens up a Pandora's box of financial distortions – now has the status of conventional wisdom in academic and policy circles.

[44] Rajan 2005.
[45] See Krippner 2011, chap. 4, for a discussion of the link between capital inflows and the financialization of the US economy.
[46] Chinn and Frieden 2011, xiv.
[47] Reinhart and Rogoff 2009b.
[48] On capital controls during Bretton Woods, see Helleiner 1994, chap. 2.

The potential dangers of capital inflows are difficult to refute. However, existing research has failed to emphasize that foreign capital is not always destabilizing for the banking system. For every instance of a banking crisis preceded by a few years of substantial capital inflows, there are countless examples of capital inflows that are harmlessly – and even productively – channeled throughout the national financial system. For example, the Great Recession, the United Kingdom and the United States both experienced large current account deficits in the years preceding their respective crises. Australia and New Zealand also experienced substantial current account deficits, but their banking systems escaped relatively unscathed. Explaining this puzzle – why capital inflows lead to banking crises in some cases but not in others – is the central motivation of our book.

Summarizing the Argument

To address this puzzle, our approach to banking crises combines the domestic and international perspectives. We envision foreign capital as the fuel for a potentially destabilizing lending boom and a source of distorted bank risk management, but the actual effect of foreign capital depends on existing structures at the national level. When banks are conservative because of the relative absence of competition for financial intermediation, foreign capital can be safely channeled throughout the system without causing bank instability. On the other hand, when banks sit alongside viable securities markets, capital inflows exacerbate banks' risk taking and increase the probability of a crisis.

Our argument about the conditional impact of capital inflows – or of global market integration more generally – has a long lineage in political science. Geoffrey Garrett, for example, has argued that partisanship mediates the impact of global capital integration on domestic policy choices, whereas Duane Swank has argued that global capital's impact is conditional upon national welfare regimes.[49] Moreover, standard models from open-economy macroeconomics suggest that capital mobility exerts different constraints on national policy choices depending on the prevailing exchange rate regime.[50]

[49] Garrett 1998; Swank 2002.
[50] Clark and Hallerberg 2000.

Our key conditioning variable – domestic financial market structure – reflects a lengthy accumulation of government decisions, and in this sense is not dissimilar to national welfare regimes or other deeply rooted institutions. Early political coalitions form around particular configurations of banks and markets, with some political leaders in support of a dominant, monopolistic banking industry, and others in support of nationally harmonized securities markets. Governments that establish rules on disclosure, fraud, and supervision are likely to see the eventual rise of sophisticated securities markets, even if those rules seem punitive in their early years. Alternatively, government policy can favor the development of the banking industry by encouraging close ties between banks and industry, by imposing taxes that inhibit securities market development, or by refraining from providing the regulatory infrastructure needed for a nationally viable securities market.

Our historical analyses also inform our policy recommendations, which are discussed in Chapter 6. In light of the slow-moving nature of financial market structure, any policy proposal to fundamentally alter the shape and depth of financial markets will likely be dead on arrival. Proposals to re-introduce Glass-Steagall-type regulations that separate commercial and investment banking might be episodically popular in countries like the United States, but as our evidence suggests, they would fail to address the heightened risks that traditional brick-and-mortar commercial banks take as they compete with securities markets.

THE PLAN OF THE BOOK

In Chapter 2, we provide a fuller picture of the prevalence of banking crises in developed economies since the 1970s. We provide our working definition of the term "banking crisis" and review the available options for measurement. This section requires more ink than a typical book's discussion of measurement, because there is some inherent discretion in determining the threshold beyond which a bank failure, a government rescue, or a nationalization of one or more banks constitutes a crisis. We compare the most widely available crisis datasets, and throughout the remainder of the book we demonstrate how our results are robust (or sometimes not) to using these different measurements.

Chapter 2 also shows the reader how capital inflows and financial market structure vary across countries and time. As with our dependent

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variable, these explanatory variables can be measured in different ways. For capital inflows, we highlight the important distinctions between current account deficits and gross portfolio inflows. Our discussion of market structure focuses on the relative degree of competition between banks and securities markets, measured by the ratio of stock market size to bank credit. Simple graphs show how these variables vary across countries and also how they appear to be uncorrelated with each other: market structure changes only gradually, whereas capital inflows ebb and flow with greater intensity. This chapter concludes by articulating the motivation for the rest of our empirical analyses: past scholarship has identified foreign capital as a likely trigger of financial instability, but there are many examples of countries and time periods in which capital inflows are not destabilizing. When will foreign capital lead to bank failures, and when will it be productively and safely channeled through the banking system?

In Chapter 3, we provide our quantitative tests. Using datasets of banking crises covering the advanced industrialized countries from 1976 to 2011, we first explore the argument that capital inflows, conditional upon the presence of a relatively prominent securities market, are associated with a higher incidence of banking crises. Results from conditional logit and linear probability models suggest that national market structure is key to understanding when and why foreign capital is destabilizing. We demonstrate the robustness of these results to different measures of our dependent and explanatory variables and different model specifications.

We also present in Chapter 3 our second quantitative test, which focuses on the impact of capital inflows on banks' actual risk taking. Using measures of capital adequacy and insolvency risk, we find micro-level evidence that banks' protective capital cushions tend to decline with the combination of foreign capital and prominent securities markets.

Chapter 4 is a case study of Canada's financial development. Canada is often considered to be a paragon of bank stability, given that its history is virtually unblemished by bank failures. What is the secret to Canada's success? We explore the political origins of the country's conservative banking system, and the largely untold story of how political decisions rendered in the nineteenth and early twentieth centuries hindered the development of securities markets. Previous scholarship on Canada's financial system has emphasized its highly concentrated, well-managed banking industry but failed to notice that its securities markets are regionally fragmented and relatively backward.[51] Indeed, Canada is the only developed

[51] See Calomiris and Haber 2014, chap. 9.

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country that does not have a national securities regulator (akin to the US Securities and Exchange Commission). We trace the underdevelopment of these markets to efforts by Canada's provinces to maintain regional control over regulation. Ironically, the interest groups in favor of light regulation, minimal disclosure requirements, and regional control were speculative industries like mining and oil exploration, which depended on a steady flow of funds from risk-acceptant investors. Stymying the creation of a national regulator and a unified national stock market may have been in these industries' short-term interests, but over time the lack of a national enforcer of disclosure and anti-fraud rules prevented Canada's securities markets from reaching the level of sophistication of markets in the United States, the United Kingdom, or Japan. Canada's banking system, which overshadows its relatively underdeveloped securities markets, therefore remains stable even in the face of persistent current account deficits.

In Chapter 5, we turn our gaze to Germany, which in its early years had a financial system that broadly resembled Canada's in both structure and stability. Banks were the primary source of capital for businesses, and close and enduring ties developed between firms and banks. Securities markets were small and regionally fragmented, and banks were generally stable. This chapter highlights how policy decisions in the aftermath of two major financial crises – the Panic of 1873 and the financial crisis of 1931 – arrested the development of German securities markets and solidified a heavily bank-centric financial system. Our historical narrative illustrates how interest-group and party politics, rising nationalism and anti-Semitism in the late nineteenth century, and the Nazis' ascendance to power in the 1930s all conspired to hobble the development of German stock markets prior to World War II, allowing banks to engage in long-term conservative lending with "patient capital" throughout the postwar era until the 1980s. In recent years, however, financial competitors from within Germany and from the European Union have prompted the large German banks to seek alternative sources of revenue. Deutsche Bank, Commerzbank, and the other large banks have become champions of *Finanzplatz Deutschland*, a single large securities market designed to compete with more established markets in New York and London. As this market has developed, the conservative bias of the large banks has eroded, and many required emergency bailouts in the early twenty-first century.

The final chapter summarizes our policy recommendations and reviews alternative arguments for bank instability. We address arguments about global imbalances, a global saving glut, and capital controls, and we weigh in on the merits of stricter capital requirements for banks, the "too big to fail" problem, and the return of Glass-Steagall regulations that separate commercial and investment banking. We also discuss the key political question of who should regulate, given the landscape of central banks, separate financial regulators, and national and regional agencies, each with varying degrees of independence from electoral politics.