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Preliminary

# **The Great Reversals: The Politics of Financial Development in the 20<sup>th</sup> Century<sup>1</sup>**

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## **Abstract**

In recent years, research has shown that the development of a country's financial markets and institutions contribute substantially to its subsequent economic growth. But if so, why do all countries not have developed financial markets and competitive financial institutions? In this paper, we suggest that despite its widespread benefits, not all countries reach a political consensus in favor of financial development. Moreover, a consensus, even when reached, need not persist. The forces against markets in general, and finance in particular, are strengthened in times of political and economic crisis, especially because countries close themselves to external influence like trade and capital flows. During such times, financial development can be reversed. And the passing of the crisis need not immediately bring renewed financial development because the anti-market forces are now entrenched. This implies that in addition to institutional factors such as a country's legal and accounting systems, factors such as how open the economy is to moderating outside influence, or how centralized the political system is, will be important in explaining cross-country differences in development today, and over time. In particular, we suggest why many countries in Continental Europe reached a pinnacle of financial market development just before the First World War, but unlike the Anglo-American economies, did not regain such a level till the end of the 20th century.

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It has long been observed that a country's state of development is strongly positively correlated with the state of development of its financial sector. For example, on the basis of data from 35 countries between 1860 and 1963, Goldsmith (1969, p48) concludes that "a rough parallelism can be observed between economic and financial development if periods of several decades are considered" and "there are even indications in the few countries for which data are available that periods of more rapid economic growth have been accompanied, though not without exception, by an above-average rate of financial development."

Recent studies suggest this association is more than simply correlation, and financial development does, in fact, advance economic growth. In a study of 80 countries over the period 1960-1989, King and Levine (1993) find that beginning-of-decade measures of a country's financial development are strongly related to the country's economic growth, capital accumulation, and productivity growth over the subsequent decade. Using the de-regulation of banking in different states of the United States between 1972 and 1991 as a proxy for a quantum jump in financial development, Jayaratne and Strahan (1996) find that annual growth rates in a state increased by 0.51 to 1.19 percentage points a year after de-regulation. Rajan and Zingales (1998a) find that the development of a country's financial markets and institutions dramatically increases the growth of industries, such as Computers or Pharmaceuticals, which need long-term external finance. With all these studies indicating that financial development does indeed facilitate growth, one is compelled to ask why so many countries score so low on measures of financial sector health?

The simple answer, and one favored by many economists, is the absence of demand. According to this view, when opportunities arise in an economy that require financing, the economy will develop the necessary markets and institutions to finance these opportunities; In other words (those of Joan Robinson (1952, p86)) "where enterprise leads, finance follows". For example, the enormous financing requirements of railroads in the United States (one billion dollars up to 1867 and 10 billion up to 1890) lead to the development of public markets for

corporate debt and later for stock, with 40% of this capital coming from Europe.<sup>1</sup> Financial institutions such as investment banks, including the famous Morgan bank, emerged to underwrite and distribute these securities and to reassure European investors that the money was properly invested. Thus the financing needs of the railroads lead to the creation of financial infrastructure in the United States that was then available to finance other industries that came later. What we have just described is nothing but the reverse of Say's Law – demand creates its own supply.

This argument is probably an oversimplification because it cannot explain why countries at similar levels of economic development differ so much in the level of their financial development. For instance, why was France's stock market much bigger as a fraction of its GDP than markets in the United States in 1913, even though the per capita GDP in the United States was not any lower than France's. It is hard to imagine that the demand for financing in the United States at this time was inadequate – the demand for more, and cheaper, credit was a recurrent theme in political debates in the United States at that time.

An alternative explanation is there may be sizeable impediments in a country in the way of supply rising to meet demand. The fixed costs of setting up market infrastructure and financial institutions will not be met until there is an adequate demand for financing. Moreover, the financial sector needs time: to gain experience, build reputations, and develop appropriate financial technology. It also needs an enabling infrastructure – for example, a legal environment that allows a wide variety of contracts to be written, enforces them at low cost, and speedily imposes punishment when they are breached.

These impediments, however, may not be enough to explain why France and the United States differed so much. Presumably, both countries were big enough that fixed costs were relatively small compared to the demand for finance. Moreover, the countries had experienced a significant demand for finance for a long enough period that the time to build is unlikely to have been a constraint. While the seminal work of La Porta et al. (1997,1998) suggests a country's legal tradition (in particular, whether it has a civil code or common law) may have a causal effect on its

financial development -- presumably because the ease of creating the enabling infrastructure is affected by legal tradition -- the arguments in that literature would predict a relatively underdeveloped financial sector in civil code France and not the other way around.

The greater intellectual problem with relying on the impediments described above to explain differences in financial development is that they suggest financial development will either take-off permanently (for example, once fixed costs are overcome or minimum reputational levels attained), or remain permanently constrained (for example, if the French civil code is hostile to financial markets as suggested by La Porta et al.). Yet the historical evidence suggests measures of financial development wax and wane. In 1913, France's stock market capitalization as a fraction of GDP was almost twice the United States (0.78 vs 0.41). By 1980, roles had reversed dramatically -- it was now barely one fourth the capitalization in the United States (0.09 vs 0.46). And in 1999, the two countries seem to have converged (1.17 vs 1.52).

Similarly, Tilly (1992, p103-104) finds both the volume of total market issues, and the proportion of issuance consisting of equity were greater in Germany in the beginning of the 20<sup>th</sup> century than it was in the United Kingdom. He concludes that in Germany "...banks and shareholders generally were well informed as to the financial status of most listed industrial companies..." while "British investor preferences in favor of fixed-interest securities reflected the paucity of information and relatively weak financial controls on the operations of company founders and insiders." Yet La Porta et al. (1998) find that in the middle of the 1990s, the United Kingdom (and other Common Law countries) scores very high on shareholder rights while Germany fares miserably. Moreover the United Kingdom has a score of 78 on accounting standards (a measure of disclosure) while Germany comes in with a score of only 62. It is no wonder that they claim the United Kingdom is more equity friendly than Germany, and this certainly is reflected in the relative stock market capitalization of the two countries at the time of their study. But Tilly suggests the greater equity friendliness was not true historically, nor is it

necessarily true today with the Deutsche Bourse becoming the senior partner in the recently announced merger with the London Stock Exchange.

In our view, these low frequency movements in financial development are best explained by shifting political coalitions. Of course, it is not surprising that politics has influence -- there are few areas of economic activity that are immune to politics. Nevertheless, it is useful to identify which groups may actively oppose something that seems so beneficial as the development of financial markets, and why they would do so. Equally important is to identify proxies for the relative political strength of groups that favor financial markets, and to examine whether these proxies correlate with financial market development.

Our main argument for when anti-market forces may become strong has two parts. The first is that incumbents -- whether in industry, agriculture, or finance -- can be hostile to arm's length markets because anonymous markets do not respect the value of incumbency, and instead can give birth to competition. The second is that the competitive forces unleashed by the markets can destroy some forms of insurance provided by social and economic institutions.<sup>2</sup> As a result, economic downturns can lead to a popular appeal from the masses for political action to reverse the effects of the market. The desire of incumbents to regain control, when coupled with the popular demand for insurance and a willing government can lead to actions to restrain the market. We will argue that the main restraint on these anti-market forces is the degree to which transactions with foreigners are important in the economy. We will then test this premise on a cross-section of countries.

We are, of course, not the first to point the influence of politics on financial development, though our focus is somewhat different from previous work. For example, in their excellent study of English public finance after the Glorious Revolution, North and Weingast (1989) argue that the English government had to build credibility it would not expropriate, before public debt markets could develop in England. Roe (1994) suggests that the popular fear of financial monopolies in the United States lead to legislation like the Glass Steagall Act, limiting the activities and size of

financial institutions in the United States. Jensen (1993) argues that legislation crimped the market for corporate control even while it was having salutary effects on U.S. industry. Our paper is related to these, especially the last in that we also emphasize the power of incumbents in retarding financial development, but our focus is across countries.

Others have attempted to explain the patterns of financial development across countries. Foremost in this is the seminal work of LaPorta, Lopez de Silanes, Shleifer, and Vishny (1997, 1998) who argue that countries with a Common Law origin seem more friendly to the development of markets perhaps because it protects investors better. However, our work indicates that financial markets in Common Law countries in the historic past, or even today, are not necessarily superior to those in Civil Law countries. The relative market friendliness of Common Law countries uncovered by La Porta et al. seems a fluctuating phenomenon, and is unlikely to be explained by something as permanent as the origin of the legal system. We conjecture that the Common Law indicator may proxy for the kind of political tradition a country has, which then serves to moderate fluctuations in the political power of interest groups.

Finally, a number of recent papers attempt, like us, to explain cross-country patterns in financial development. Verdier (1999) argues that political structure may explain the origins of universal banking in the 19<sup>th</sup> century, while Fohlin (2000) surveys the existing literature on legal and political forces affecting financial development to derive testable implications. Neither paper emphasizes the reversals, which are our focus. Roe (1999) suggests that corporations in Continental Europe are more closely held because of the potential for higher agency costs there as a result of pro-labor legislation passed in the 1920s and 1930s. There is a commonality between our work and his in that he describes specifically how legislation intended to protect workers against the vagaries of market forces may eventually curtail certain forms of financing. There are differences. For example, given the worker empowerment that is in place, he sees little incentive for firms to press for laws protecting minority investors. By contrast, we believe that worker empowerment and the protection of incumbent management is part of a wider pact mediated by

governments that comes under pressure as an economy opens up. Pagano and Volpin (1999) develop a model in which entrepreneurs, who have already raised finance, want low investor protection (so as to indulge in private benefits), and get the support of workers by promising them high employment protection. Thus low investor protection and high employment protection go together, a prediction they verify empirically. Our model differs in the details in that incumbents settle for low financial development (cartelized banks, poorly developed financial infrastructure) if it keeps out competition, and workers may, or may not, be part of this consensus (they were not in Germany and Italy during the Fascist era). Our most important contribution is, however, to try and understand when this consensus develops and when it breaks down.

The rest of the paper is as follows. In section I we describe how we collected the data, then we present measures of financial sector development in different countries at various points in the 20<sup>th</sup> century. What is particularly interesting is that countries like France that had moribund capital markets till recently had flourishing ones in the early part of the century. By contrast, Anglo-American economies did not seem to have a particular advantage in financing domestic firms through capital markets at that time. In section II, we present a theory to explain these patterns. In section III, we suggest some tests, discuss the results and then conclude in section IV.

## **I. Evolution of Financial Development over the Twentieth Century**

We face two challenges in documenting the changing levels of financial development over the course of the twentieth century. One, common to any attempt to compare financial development, both across countries and over time, is how to measure financial development. There is no consensus on the correct method. Theoretically, the right measure would be the ease with which companies in need of external funds can access them, and the ease with which investors can get an adequate return. Unfortunately, these are not measures that can be easily computed even in the most developed countries today, let alone in the past for countries that have not been as fastidious about statistics.

The common practice in the literature (e.g., King and Levine (1993), Levine and Zervos (1998), Rajan and Zingales (1998a)) is to compute ratios of different aspects of the financial system (such as deposits, equity market capitalization) to measures of the size of the economy. While not strongly theoretically motivated, these measures do capture the broad feature of a country level of financial sophistication and they have the merit of having become the standard in the literature. Thus, for ease of comparison we will try, as much as the available data allows us, to use these measures. We will be more explicit about the most relevant measures later when we get to the empirical tests.

The second more formidable challenge, specific to the historical nature of our analysis, is the difficulty in gathering reliable sources for historical information about financial markets. Primary sources are often lost or inaccessible, while secondary sources are often contradictory, or repeat uncritically the same primary source. To further complicate our task, the type of information statisticians and governing bodies of stock exchanges were interested at the beginning of the century seems quite different from the ones we are interested in today (this seems a topic worthy of a separate study). We discuss some of these differences because they help shed some light on the different perceptions of the nature and role of financial instruments at that time.

### **1.1. Historical Differences in Reporting Data**

A number that is often reported is the total nominal value of securities outstanding in a country. This clubs together not only stocks and corporate bonds, but also Government bonds, making the number difficult to interpret. The clubbing of information on corporate bonds and stocks, which is pervasive even in the United Kingdom, probably the most sophisticated financial market at that time, reflects the similarity of these two instruments at that time. First, the use of preferred stock paying a fixed dividend was widespread. Second, common stock paid very high dividends, making them more similar in nature to bonds. One consequence of the high dividend payout ratio is that most stocks traded fairly closely to their nominal value. In fact, in many

countries stock prices were quoted as a percentage of their nominal value. Thus, even from an investor's point of view, bonds and stocks were perceived as very close substitutes, a fact that can be appreciated by reading through the investment advice contained in the *Review of Financial Reviews* (a British predecessor of Barrons).

A second problem is that the official statistics at the beginning of the twentieth century report the total universe of corporations existing at that time, rather than the subset of those publicly traded. This is not surprising if one remembers that in most countries free incorporation was introduced only late in the nineteenth century. As a result, most registered corporations were newly formed and they had to appeal in one way or another to the public to raise the capital necessary to get started. Nevertheless, to make the numbers more comparable across time we classify companies as publicly traded only if the firm is quoted. Even with this requirement, we may still have very infrequently traded stock. We are in the process of complementing our analysis with data on volume of trade.

A final problem is the importance of regional exchanges. At the beginning of the century, not only was trading more fragmented across exchanges, but so was listing. For example, the Banco do Brazil is listed in Rio but not in San Paulo. Companies listed only in Osaka represent a not inconsiderable portion of the total companies listed in Japan. The most extreme case is Germany, probably as a consequence of the delayed political reunification. In 1913 Germany had nine major stock exchanges and Berlin, the main one, represented only about 50% of the total capitalization.

Regional (or secondary) stock exchanges represent a challenge from a data collection point of view. Since many have disappeared or have been absorbed by the main exchange, they tend not to be well documented. We try, as much as possible, to reconstruct a measure that includes all the stock exchanges, eliminating double listing. When this is not possible, we compute the ratio of the capitalization of the secondary exchange to main exchange at the earliest day available and then use this ratio to extrapolate backwards the value of these exchanges. Since

the importance of regional exchanges has gone down over time, this procedure clearly biases downwards the estimate of the total stock market capitalization in countries with fragmented stock markets. This should be kept in mind in the analysis, though we will try and address it in future work.

## **1.2. Data Sources**

### *Stock Market Capitalization and Number of Companies Listed*

Our starting point was the official publication of the stock exchanges as well as those of the Federation Internationale Bourses Valeurs (FIBV). These provide extensive information only starting in 1980. Publications of individual stock exchanges often go back to WWII. When not available, we use information contained in several different guides to stock exchanges around the world. Only for Japan and the United States did we find official publications before WWII.

To assess the importance of the equity market in 1913 we mainly rely on two approaches. Whenever possible we secured a copy of a stock exchange handbook in 1913 (or the closest year before 1913). Using the handbook we identify the number of domestic companies listed, the number of shares of each company, and the price per share. We then compute the total stock market capitalization as the sum of the product of price times the number of shares. We are able to do this for Brazil, Cuba, Germany, Italy, Russia, and the United Kingdom.

The second most important source of pre WWI data are different issues of the Bulletin of the International Institute of Statistics (ISS). Starting in the late nineteenth century, statisticians from all over the world met every year for a conference. This association formed a special group, aimed at computing the importance of security markets in different countries. Thus, several issues of the ISS Bulletin between 1900 and 1914 are dedicated to this. Unfortunately, many of these reports club together stocks and bonds but we do obtain some disaggregated information for some countries.

### *Data on Equity Issues*

Data on equity issues are relatively easier to get for the pre WWII period than for the period immediately after the war. For example, the *League of Nations* statistics include this information, even though it is not contained in more modern publications like the United Nations Statistics, or the Financial Statistics of the International Monetary Fund. This may be a reflection of the greater importance that was attributed to this information before World War II. When not available from official statistics, we gather this information from financial newspapers of that time such as the Economist, Commercial and Financial Chronicle, Deutsche Oekonomiste etc.

### *Data on Deposits and National Accounts Data*

Pre WWI data comes from Mitchell (various issues). Whenever available, however, we prefer the data from the NBER web site, which combines several different sources. In a few cases we had to use specific national sources. Post WWII data come from the IMF's International Financial Statistics.

We now describe the data we have collected.

## **1.3. Data Description**

### *The Evolution of the Banking Sector*

As a measure of the development of the banking sector we use a ratio of deposits (commercial banks plus savings banks) to GDP. This measure captures only the liability side of banks, ignoring differences in the composition of bank's assets. This may matter. For example, German banks had a bigger fraction of their assets invested in commercial loans than British banks. The ratio of deposits to GDP, thus, will underestimate the importance of German banks in the credit market.

Table 1 reports these ratios for a cross-section of countries between 1913 and 1998. Interestingly, the ratio of deposits to GDP in 1913 is quite similar to that in 1998 for a number of countries. One exception is Japan, where deposits were only 19% of GDP in 1913 and are 111% in 1998. If we restrict our attention to the post WWII period, however we can observe a marked

trend upwards. The fifty years of relative peace and stability have brought back the situation in many countries to where it was in 1913.

### *Evolution of Equity Issues*

One measure of the importance of equity markets is the amount of investments that are funded through equity issues. In Table 2, we report the ratio of equity issues to investments as measured by Gross Fixed Capital Formation (GFCF). Unfortunately, here the data are not as complete as we would like them to be. Nevertheless, what emerges is that equity issues were a more important source of funds for corporate investments in 1913 than they are today for almost every country we have data for. This is even more noteworthy when we recognize that the 1913 figures are biased downwards relative to the 1998 ones, because we normalize by GFCF and corporate investments represent a much smaller proportion of GFCF in 1913 than in 1998.

Another interesting feature is that equity issues appear to be more important in France, Belgium and Russia, than they are in the United States. Thus, by this measure, some Continental European markets seem to be at least as developed as the U.S. market at that time.

Finally, security issues appear to have been very important even after WWI. Our figures might be inflated by the well-known cyclical nature of equity issues and the choice of 1929 (a boom year) as reference point. Nevertheless, a preliminary analysis of the surrounding period suggests that this is not an outlier. Shortly after WWI, financial markets recovered and equity issues assumed an important role in financing corporate investments. This is in sharp contrast with the post WWII period, when equity issues did not play a major role.

### *Evolution of Capitalization*

The data on the relative magnitude of the stock market in Table 3 confirm the data on equity issues. In most countries equity markets were relatively bigger in 1913 than in 1980. Only by the end of the 1990s do they seem to have exceeded their 1913 level.

While the U.K. has high capitalization, Belgium, France, Germany, and Sweden come close, ahead of the United States. Once again the distinction between Continental Europe and Anglo-American countries does not seem to hold. This distinction seems to be a post-WWII phenomenon. Not only was Continental Europe more affected by the two wars, but its post WWII development was not financed via markets.

*Evolution of number of companies listed.*

Another indicator of the importance of equity markets is the number of publicly traded companies per million population (Table 4). While this ratio might be affected by a process of consolidation, it provides a measure that is not tainted by fluctuations in stock market valuations and possible mis-measurement of the level of GDP. Thus, it is very useful as a complement to the previous ones.

Most countries have more companies listed per million people in 1913 than in 1980. Again, only with the explosion of markets during the late 1990s has the 1913 level been surpassed. In few cases the difference is astonishing. In 1980 Germany had only half the publicly traded companies per million people that it had in 1913, Italy one third, Austria one fifth. This is not just the outcome of the consolidation process, since in the United States the 1980 level is eight times that in 1913.

Let us now ask what can explain this extraordinary set of reversals in the importance of arm's length financial markets in the twentieth century. What is of particular interest is that the reversals seem more pronounced in some countries than in others, so much so that recent studies have suggested that, recently, arm's length markets seem particularly favored in countries with an Anglo American connection, even though this was not true in the past.

## **II. Political Forces in Early Financial Development.**

Why would anyone oppose financial development? And it does seem that financial development faces substantial political opposition because its primary ingredients such as better disclosure requirements, the ability to write enforceable contracts that protect contracting parties, and an effective but light regulatory system, do not seem that difficult to initiate. History suggests that when a political consensus in favor of financial development emerges, it has not taken long to set the primary ingredients in place. This is not to say that there are never any hiccups on the way to financial development -- the transition from a repressed financial system to a free and competitive one can be traumatic, especially if the government takes "free and competitive" to mean "unregulated". But given the immense benefits the literature has documented, why do so many countries seem content with underdeveloped financial systems?

### **2.1. The Advantage of Incumbency.**

The answer we believe has to do with the challenges financial development poses to incumbents. Consider what happens in an economy with an underdeveloped financial system – an economy where disclosure is poor, financial contracts are hard to enforce, and regulations are meant not so much to ensure the integrity of the system as to serve the interests of the few. In such a system, arm's length relationships are simply not possible. An unknown individual owning just his human capital will not be able to get financing because he has no hard collateral to pledge, nor reputation to substitute. Whatever surplus capital is available tends to flow towards incumbents because only they have the reputations to ensure that they will repay any money invested in them, and only they have the power to secure the repayment of money invested in the projects of others (see Lamoureaux (1994) for an excellent study of such lending patterns in the under-developed New England economy of the nineteenth century).

Moreover, finance is power. To control, or even simpler, to deny, financing is to control the lifeblood of economic activity. It is far easier, and far less obtrusive, to use the spigot of finance to turn off unpleasant competition as and when it threatens to occur than it is to use the apparatus of the state repeatedly to pass legislation to stamp competition out. Thus control over

financing is most convenient for powerful incumbents – existing industrialists, financiers, landowners, and government officials—so that they can ensure a monopoly over a far wider arena of economic activity than simply finance.

## **2.2. The Costs of Financial Development.**

Financial development threatens this monopoly. For example, the passage of laws allowing free incorporation in Europe in the 1850s and 1860s extended the privilege of limited liability, which hitherto had only been available to a select few who had contacts in Court. The number of companies being set up exploded, and their ability to raise finance improved dramatically as investors now only had to be concerned about losing the value of their investment if a venture did not succeed. This was unlike in the past when, under unlimited liability, they could lose their entire wealth on an offhand investment that went sour, and therefore were extremely conservative. As many new firms entered, industries became more and more competitive and the easy profits became a faint memory. Rajan and Zingales' (1998a) finding that there are significantly more new establishments in an industry dependent on external finance when the economy is financially developed suggests that, even today, financial development helps competition breed.

In addition to the loss of rents, there is also a potential loss of power or control over the economy. The powers that make up the status quo would greatly prefer to be able to control what the market finances and channel financing towards activities that enhance, rather than compete with them. But competitive markets and institutions do not lend themselves easily to control. If an institution repeatedly obeys diktats other than those emanating from the profit motive in a competitive market, it soon finds itself driven out of business by others that are less responsive to control. So why would incumbents ever risk all these unpleasant consequences by allowing the financial system to develop and become more competitive?

## **2.3. The Benefits of Financial Development.**

One answer, of course, is that they have no choice – bereft of entry and competition, the system seizes up because the old and the inefficient dominate every facet of the economy. India embarked on its recent reforms in 1990 simply because it had no exchange reserves left to pay its bills, and had to go hat in hand to the IMF. A crisis can also weaken incumbents and facilitate reform. The spate of financial sector legislation in the United States -- including momentous reforms such as the separation of commercial and investment banking, the setting up of the Securities Exchange Commission, and the setting up of universal deposit insurance -- followed the Crash of 1929, during the worst period of the Great Depression. Even though the reforms were ostensibly intended to deal with rampant abuse, recent research shows that the few cases of abuse that were highlighted were not representative.<sup>3</sup> Instead, hearings like those of the Pecora Committee seemed more intent at swaying public opinion against the great financiers who dominated U.S. banking than in really establishing what had gone on in the roaring twenties. With public opinion against them, and with the threat of nationalization looming in the background, the great bankers had to accept being broken up, and also see their smaller competitors get the benefits of deposit insurance.

A second possibility is that incumbents see opportunity in financial development. They may have enough of an edge in ability, wealth, and connections to flourish from the vastly increased flow of resources, despite the added competition. They may also find new outlets in which to invest their talents and wealth. In the 1850s and 1860s, the dramatic reduction in the cost of transportation suddenly expanded the potential size of the market that each firm could service. In order to enable their firms to service foreign markets, countries where the industrial sector was strong first entered into bilateral trade agreements, then multilateral agreements, and eventually espoused the cause of free trade. They also moved to the Gold Standard. The fixing of exchange rates in terms of gold allowed for more price certainty in cross-border trade. It also encouraged cross-border capital flows, which benefited both capital rich countries like England

that could invest their surplus, and capital poor countries like Sweden that could industrialize rapidly using foreign capital.

For a financially underdeveloped country, there was a close relationship between opportunities for trade, external capital flows, and domestic financial development. Since the initial reduction of tariff barriers was on a quid-pro-quo basis, countries had to accept the possibility of external competition in the domestic sector when they opened up to trade. When faced with external competition, internal competition from domestic entrants was no longer such an important threat to incumbents. Instead, it made sense to develop the domestic financial system so that domestic incumbents could raise the resources necessary to invest on the larger scale demanded by international markets. Moreover, foreign investors could complement domestic ones to provide the necessary capital to domestic firms.

Foreign investors, however, are outsiders. They are not aware of the reputations of domestic borrowers, and do not have the power from long term relationships or the domestic social networks to enforce repayment. They require adequate transparency and assurance of contract enforcement before they part with their money. Thus foreign investors demand particular aspects of financial development -- aspects that protect arm's length investors who are not part of the domestic power circles. But the kinds of accounting and legal reforms that protect foreign investors also protect domestic arm's length investors and can lead quickly to the explosive growth of markets.

It is important to note that free trade, the Gold Standard, and open capital markets reinforced each other, and together, made it very difficult to interfere with workings of the market (see Polanyi (1944), Eichengreen (1996)). If a country suffered an adverse terms-of-trade shock, the only way to respond was to allow domestic wages and prices to fall, with consequent hardship to labor. Under the Gold Standard, it was simply not an option to depreciate one's currency to deal with adverse trade balances. Similarly, if the banking sector suffered a serious liquidity shock, the central bank could not lend freely at a low interest rate for fear that that the exchange

rate would be affected. So long, however, as a country maintained the confidence of outsiders that it would not depart from the Gold Standard, there was a mechanism that limited the harshness of adjustment. As soon as a currency started depreciating to the point where it made sense to convert it into gold and export, foreign money started coming in, anticipating that the exchange rate would eventually return to the fixed rate. These foreign inflows then supported the currency and reduced the size of the necessary short-term adjustments a country had to make to deficits. Of course, it was the foreign investors' confidence in the country's long term commitment to the Gold Standard that made them see adequate returns to investing. In turn, their support made adjustments less harsh, and made it politically more feasible for the country to stay on the Gold Standard.

#### **2.4. What Explains the Reversals?**

Given this self-sustaining mechanism, what then could cause the reversals after 1913 that we document in the data? The reversals are particularly hard to understand because once financial development takes place, constituencies are formed that benefit from it and want to protect it. For example, the City of London, which forms the heart of the financial sector in Britain, has always played a key role in British politics in protecting its interests, sometimes to the detriment of the domestic industrial sector (see Kennedy (1989)).

The world economy was subject to three large common shocks between 1913 and 1950 that were unprecedented -- the two World Wars and the Great Depression. Any of these upheavals could account for the general shrinkage of capital markets over this period, and a plethora of other factors such as technological, social, or organizational change within countries, could explain each country's particular experience. We will attempt to provide an explanation for the general reversal of markets (and their recent revival), and also try and understand why markets were relatively resilient in the Anglo-American economies over this period. To do this, however, we first have to describe a very real limitation of competitive markets -- a limitation that gives popular backing to anti-market forces.

### *The Limitations of Markets*

Thus far, we have focused on the virtues of competition and the market. But in the real world where detailed long term contracts are hard to write and even more difficult to enforce, the advent of competitive markets could make it very hard for parties to form relationships within which they can provide each other mutually beneficial insurance.

For example, the existence of competitive arm's length securities markets makes it harder for long term bank-firm relationships to form, and increases the risks to firms of being shut off from credit in a downturn. The rationale is that these relationships are a form of insurance; a firm in trouble gets credit at a below-competitive rate in return for which it pays the premium by giving more of its business to the relationship bank in good times. Economies with under-developed contracting and enforcement systems tend to use such long-term relationships – whether they are between labor and firms or between borrower and lender – to provide the assurance the contracting system cannot. A more competitive environment puts great stress on such a relationship because opportunities outside the relationship become more attractive. It becomes much harder for either party to feel confident in the give-and-take that is necessary for the relationship to work because the other party could just leave after taking. The bank will suspect the ungrateful (i.e., profit maximizing) troubled firm will demand a competitive rate once it has been restored to health, and the bank will have no option but to give in. Since a relationship is governed by mutual confidence rather than contracts, an improvement in financial markets, and the resulting increased competition, leads to a breakdown in confidence, and the quick demise of relationships founded on nothing more substantial than the absence of alternatives.<sup>4</sup>

Not only do competitive markets make it harder to give-and-take over time, they also make it harder for economic organizations like firms to cross-subsidize the inefficient (and the unskilled, or the untalented) with the produce of the efficient. While competition between economic organizations in product markets mercilessly exposes those who do not pull their weight, competition in the input market for those who are efficient pushes up their wages, leaving

less surplus to subsidize the inefficient. It is no wonder that when detailed long-term contracts are hard to write or hard to commit to, the introduction of markets can destroy old sources of social insurance without creating new ones (see Polanyi (1944), Diamond and Dybvig (1983)).

The inability to provide insurance to people and firms against large changes -- such as the destruction of entire industries, the disappearance of entire classes of jobs, or long term economic downturn -- as we will argue, was the Achilles heel of competitive markets. But for this to matter, the affected groups had to have political power. This is where the political changes wrought by World War I mattered.

*The Turmoil Caused by War and Depression.*

There were three reasons the inability of the market, broadly speaking, to provide insurance did not matter much before World War I. The first is that the economic upheavals that people had to face were less important than the ones that were to come. Even though some argue that the depression between 1873 and 1896 was a cataclysmic event, unlike the one in the 1930s there is much less consensus about its severity. The second reason is that the Gold Standard simply did not allow governments to dislocate their budgets by providing social security and welfare support to the needy. Moreover, the liberal belief in the relentless logic of the market made it unwise for governments to interfere in the Darwinian winnowing unleashed by market forces. Intervention, it was thought, would only prolong the pain. But perhaps most important, the poorer sections of society -- the workers, the small farmers, and the unemployed -- were not organized, and had little political voice.

That World War I was a great disequilibrating event is probably an understatement. Even apart from its effect on the map of Europe, the political and social effects of the First World War cannot be understated. For one, the exigencies of coordinated war production had created all manners of hierarchical organizations throughout the economies of Continental Europe. For example, McNeill (1982, p339) describes the control of the war effort in Germany after 1916 thus

“...the generals in charge often became impatient with the financial claims and controversies that continually embroiled and sometimes obstructed prompt and deferential obedience to their demands. As shortages rose, one after another, the generals relied more and more on big labor and big business to remodel the economy according to military needs. Each party got more or less what it wanted: more munitions for the army, more profits for the industrialists, and consolidation of their authority over the work force for union officials.”

In other words, the economy was being run like a centralized hierarchy, modeled along the lines of the army. Centralization was aided by the cartelization of industry, of the banking sector, and of the work force because this reduced the number of parties the central authority had to negotiate with. Moreover, the “corporatization” of the economy seemed to work, at least in delivering the necessary munitions, even though distortions built up elsewhere. As we will argue later, many saw this as an attractive template to return to during the years of the Depression.

Once the war ended, significant adjustment had to be made to return to civilian production. But labor was now organized. Moreover, it was disillusioned with the status quo. The senseless carnage of a war that left all its main protagonists worse off led many to doubt the caliber and motives of their political leaders, and discredited the pre-war liberal consensus. The trenches during the war served as classrooms where the working class absorbed radical ideas. With labor’s newly found ideas and organization, it was clear that it would no longer continue unquestioningly to absorb the costs of adjustment to macro-economic imbalances. And there were significant imbalances. Prices and wages had to adjust, especially if a country were to go back to the Gold Standard, industries that had prospered during war-time autarky would have adjust to international competition, financial institutions would no longer have government guarantees, and would have to learn how to evaluate credit again. Moreover, some of the victors were saddled with enormous war debts, and the vanquished with reparations, and extraordinary surpluses had to be generated to make these payments.

The consequence was industrial strife in country after country. The very concept of private ownership was questioned, and for a while revolutionary change seemed a possibility. Yet for a variety of reasons that we will not enter into here, the immediate post-war radical worker

movements collapsed (see Maier (1987) for a detailed analysis). Industry and the more moderate labor organizations reached a *modus vivendi* (see Roe (1999)).

For some the transition back to peacetime production was easy. In particular, the United States did not have to depart too much from the market during the war, benefiting from the enormous purchases made by the Allies, as well as from servicing the export markets the warring parties had abandoned.

Others such as Britain emerged with deficits, debts, and inflation. An attempt by Britain to go back to the Gold Standard at pre-war parities, in large part driven by the City's desire to re-establish confidence in the pound, and restore London's position as a center of financial activity, led to further downward pressure on wages and the General Strike of 1926 (see Green (1992)). Germany was in an even worse situation because it was saddled with unrealistic war reparations, which could simply not be met.

Despite the difficulties of adjustment, however, the pre-war liberal consensus was strong enough, as well as the prospects of international trade attractive enough for virtually the entire industrialized world to be on the Gold Standard again by 1927.<sup>5</sup> But there was no longer a group which would bear the cost of adjustment to imbalances silently. Strong interest groups ranging from labor to import-substituting industries were unwilling to bear the risks the market imposed and demanded government subsidies if not outright protection. Subsidies increased, as did deficits. These deficits could be sustained under the Gold Standard without painful domestic deflation only if some country were willing to finance them by lending. The United States performed this role only till 1928.

As Eichengreen (1996) suggests, perhaps in order to discourage speculation in the stock market, the Federal Reserve raised interest rates in the United States in the first half of 1928. Lending to foreign countries by the United States plummeted in the second half of 1928 (Eichengreen (1996, p71)). In order to stay on the Gold Standard, countries had to either eliminate deficits or raise interest rates and contract credit, both politically painful policies. The

stock market crash of 1929 in the United States and the ensuing Great Depression was the proverbial straw. With the single biggest consumer in the world contracting, exports plunged all around the world, further aggravating balance of payment problems in Europe, Japan, and Latin America. Domestic price deflation was necessary to stay on the Gold Standard, and to generate the surpluses to repay debt, but one country's deflation was simply a contraction of the export markets for another country.

Moreover, as prices fell, with domestic debt largely nominal, defaults increased. Losses at financial institutions increased, and the threat of a financial crisis put pressure on central banks to intervene and bail out the system. Again, under the Gold Standard, central banks could simply not lend freely to bail out the banking system without jeopardizing the exchange rate.

With domestic demands for insurance against these severe economic conditions increasing, there was pressure for governments to do something, and not simply wait for the markets to return eventually to equilibrium. As Keynes famously wrote, "In the long run we are all dead". Moreover, the benefits of belonging to the Gold Standard seemed less and less clear. For example, one of its most attractive features for governments had been the ease with which they could finance their deficits by borrowing abroad. In fact, for significant periods in the decades preceding 1913, current account deficits exceeded 10 percent of GDP in Australia, Canada, and Argentina, while in the surplus countries of Britain, France, Germany and Netherlands, net capital outflows touched 9 percent.<sup>6</sup> With international lending virtually at zero, governments saw little direct reward in paying a political price to adhere to the Gold Standard.

#### *The Political Response.*

Clearly, the response in each country to the common shock of the depression emerged from complex interactions between its historical experience, its political institutions, and the strength of its key players. But in general, unbridled competition in the 1920s was held to blame for what, from the vantage point of the Depression years, seemed like excessive investment by industry, excessive credit creation by banks, and excessive speculation in the stock market by all

and sundry. To restore people's faith, politicians promised to curb the forces unleashed by the market.

These sentiments were reflected in statements made by politicians from very different persuasions. As Charles Maier argues, fascism was appealing because it promised ordinary people that they would not be powerless against a soulless and merciless market. Hitler felt that economic problems could be overcome by political will. He wrote (cited in Maier (1987), p65)

“The Volk does not live on behalf of the economy, its economic leadership, or economic and financial theories, but rather, finance and economy, economic leadership, and even theory exist only to serve in the struggle for our people's self determination.”

Of course, finance and the economy (i.e., the market) would be tamed under his leadership. The tyranny of the market weighed equally on Franklin Roosevelt. In his acceptance of the Democratic Party's presidential nomination in 1936, he alleged that before the New Deal a

“small group had concentrated into their own hands an almost complete control over other people's property, other people's money, other people's labor – other people's lives. For too many of us life was no longer free; liberty was no longer real; men could no longer follow the pursuit of happiness”

Since the market seemed to be inflicting pain on the many for the profit of a few, Roosevelt concluded

...Against economic tyranny such as this, the American citizen could appeal only to the organized power of Government.” (Kennedy (1999, p280)

The response of governments to the problems of the depression varied in their details but typically had three common themes. The first was to depart from the Gold Standard. As Roosevelt declared in his message to the World Economic Congress in July 1933,

“The sound internal economic system of a Nation is a greater factor in its well-being than the price of its currency in changing terms of the currencies of other Nations.” (Kennedy, 1999, p157)

With no external discipline on the extent to which governments could intervene, they were now free finally to remedy what they saw as obvious defects of the market. So the second

theme was to curb competition, both from external sources and from internal sources. Finally, if prices were no longer set in a competitive market, something had to take the place of the market in channeling resources. Instead of using the market to channel resources, the command and control structure only recently disbanded after the war provided an attractive alternative. So the third common theme was a return to the corporatist hierarchical management of the economy, which had been “first explored during World War 1 [and] became unmistakable in many countries by the mid 1930s.”<sup>7</sup> We now explore the second theme, that of curbing competition, in greater detail for that will lead directly to our explanation of the first great reversal in financial markets.

#### *Autarky and its Effect on the Financial Sector*

Competition had to be curbed. As we argued earlier, foreigners had access in the past because domestic elites saw opportunities in trade. With export markets no longer proving attractive, there was no reason to allow foreigners into the domestic market. They were the easiest targets because they had no political voice. Imports of goods and people were curbed through prohibitive tariffs and restrictive immigration policies (see O'Rourke and Williamson (1999) for an excellent recent survey).

Domestic competition was also problematic. The head of the National Recovery Administration in the United States, Hugh Johnson, argued that employers were forced into layoffs during the Depression as a result of “the murderous doctrine of savage and wolfish competition, [of] dog-eat-dog and devil take the hindmost”. By contrast, “the very heart of the New Deal is the principle of concerted action in industry and agriculture under government supervision”.<sup>8</sup> The NRA sought to set prices, control overproduction by allocating production quotas, and would thus stabilize wages. Its model was the War Industries Board of 1917-18.<sup>9</sup> While the NRA itself was declared unconstitutional by the United States Supreme Court in 1935, hierarchical control of industry became firmly entrenched in other countries, especially Germany, Italy, and Japan.

The government's desire to curb competition left no place for new entrants. This was most welcome to domestic incumbent firms, who freed from external competition were happy to reach agreements with other incumbents, and do away with new entry into domestic product markets, especially if the government was agreeable. Since control over financing was the easiest way to establish control over entry, it was natural that political attention would shift towards the financial markets and institutions. Because the financial sector was in disarray, political intervention could be effectively disguised as an attempt to introduce stability into the system.

Clearly, elements in the domestic financial sector would be opposed to controls that would reduce their profitability. If foreign capital had been flowing freely, the possibility of seeing business go to foreign financial institutions or foreign markets would have made the domestic financial sector extremely reluctant to accept constraints on its activities. Since cross border flows had virtually stopped, this was not a concern. Moreover, government controls brought with them the prospect of government enforced cartels, which could enhance rather than reduce profitability. With little prospect of foreign competition in the financial sector, and with financial markets moribund, domestic financial institutions were willing to accept curbs, especially on their market oriented activities, if other activities were consequently rendered more profitable.

#### *Intervention in the Financial Sector*

The interventions in the financial sector typically took two forms. The first was, of course, a restructuring of the banking sector in a way that promoted fewer, larger banks, and limited inter-bank competition. This fed into a bank consolidation movement that had started early in the century in many countries. Since better-diversified, more profitable, banks are more stable, it is hard to argue that these moves were not motivated by concerns about stability. But it is as difficult to be a little pregnant as it is to be a little interventionist. For instance, the opening up of the public purse to rescue failed banks sends a signal to healthy banks that poor business decisions will not be severely penalized. The only way to prevent their taking advantage of these

public subsidies is to regulate carefully their private activities. In the absence of political checks and balances, it is all too easy for the government and the bankers to enter into a Faustian pact, with the government restricting entry and inter-bank competition, ostensibly in the interest of the stability of the system, and bankers obeying government diktats about whom to lend to in return for being allowed to be part of the privileged pack. Since incumbents in industry were likely to get the directed loans, they were willing to go along and the outcome in many countries, whether conscious or not, was a banking system that was more conservative in financing newcomers, and more accepting of government direction.

A co-operative, conservative, banking sector is all for naught if the arm's length stock and bond markets continue to finance entry and compete with the banking system. This is where the second form of intervention took place. In addition to being concerned about the ruinous effects of financial competition on the health of the banking system, the government also wanted private investment to flow through the banking sector because these flows could be more easily directed to preferred activities than if they went through the arm's length markets where the government had little control. In a number of countries, measures were put in place restricting the ability of corporations to issue securities in the market, and reducing the attractiveness of certain securities. These ranged from stiffer listing requirements (e.g., the United States) to outright prohibitions on issue (e.g., Japan) to prohibitions on paying high dividends (e.g., Germany). Even though banks often had market related activities such as underwriting, they were not averse to the restriction on arm's length financial markets for they recaptured even greater profits in the now-cartelized lending business.

Thus far, we have argued that the popular demand for insurance was catered to by governments who, by curbing competition in product and financial markets, formed common cause with incumbents, who did not find the return to the good old days so unpleasant. The only casualties were potential new entrants, and the markets for corporate securities, and these did not have much of a political constituency in most countries. But there was one important difference

from the past; the government was central to this process, which gave it tremendous power. It is Polanyi's (1944) argument that the bottom up demand for economic security in the wake of the Great Depression, which also gave democratically elected governments the power with which to address national grievances, leading eventually to the Second World War. But instead of straying afield, let us illustrate some of the above assertions using Japan as an example.

### *The Demise of Financial Markets in Japan*

Japan, as our data suggest, was making rapid strides to developing strong financial markets before World War I. Japan benefited during the war because it did not participate in it, and managed to export to other Asian countries that had been cut off from European producers. Japan's banking system was competitive and kept pace with the demands of industry. Until 1918, there were no restrictions on entry into banking, provided minimum capital requirements were met. While there were over one thousand banks when World War I began, by 1920 there were over two thousand banks. The five large Zaibatsu (translated as "financial cliques") banks accounted for only 20.5 per cent of the deposits before the war, and there were many small banks.<sup>10</sup>

The end of the war brought renewed competition in the markets that Japan's exporters had monopolized during the war. Compounding the pressure on profits, the Great Tokyo Earthquake in 1923 caused damage estimated at an incredible 38% of GDP. Many banks had to be bailed out by the government through medium term loans. However, when the loans came due many could not pay, and the loans were extended till 1927. In the Spring of 1927, the Finance Minister, Kataoka, precipitated a further crisis by announcing in the Diet that the Tokyo Watanabe Bank had been closed that day. While in fact the bank had not been closed, and his ostensible intent was to goad the Diet in to increasing relief measures, the outcome was a run on the Tokyo Watanabe Bank and a full-fledged banking crisis. The Bank Act of 1927, enacted in response to the crisis, made clear the preferences of the authorities for a concentrated and stable banking system by requiring banks to reach a minimum capital level of 1 million yen within five

years. By 1932, at the end of this five-year period, there were only 538 banks.<sup>11</sup> Throughout the 1930s, bank mergers were promoted by the Ministry of Finance so that by 1945, there were only 65 banks, and the share of Zaibatsu banks in total deposits had increased to 45.7 per cent.<sup>12</sup>

At the same time as the banking system was becoming more concentrated, the government's control over it was increasing. This became especially pronounced as the government sought to direct funds towards supplying the war against China in 1937. With the Temporary Fund Adjustment Act in 1937 and the Corporate Profits Distribution and Fund Raising Act in 1939, the government, through the Industrial Bank of Japan, assumed control of financing. All security issuances and lending decisions above a certain amount had to be approved by the government, and those that were not related to the war effort were typically not approved. Further Acts simply strengthened the government's control and this culminated in the designated lending system by which each munitions company was designated a major bank which would take care of all its credit needs. By the end of the war, the banking system was not only concentrated, but well and truly under the control of the government.

While it seems undeniable that the transformation of competitive Japanese banking into what became the post-war main bank system was orchestrated by the government, the demise of the arm's length financial markets also had the active participation of the banks. In 1929, large Japanese firms raised 26 percent of their debt from bond markets, and only 17 percent from banks. As bond defaults increased, a group of banks together with trust and insurance companies seized on the poor economic conditions to agree in 1931 to make all subsequent bond issues secured in principle. This immediately made it harder for their clients to issue public debt. With the acquiescence of the Ministry of Finance, the agreement was formalized in 1933 through the formation of a Bond Committee. The Committee determined which firms could issue bonds, on what terms, and when. All bonds were required to be collateralized, and banks were to serve as "trustees" for the collateral in exchange for a substantial fee. Giving banks the responsibility for determining firms' right to access the public bond markets was like giving a fox who resided in a

chicken coop the right to determine which chickens could leave.<sup>13</sup> The obvious outcome was that a flourishing bond market was killed off. By 1936, bonds were down to 14 percent while bank debt was up to 24 percent of liabilities. By 1943, 47 percent of liabilities were bank debt while only 6 percent were bonds.<sup>14</sup>

The equity markets were similarly choked through fiat. The attitude of the government towards shareholders is illustrated by the following statement by a bureaucrat<sup>15</sup>:

"The majority of shareholders take profits by selling appreciated stocks, sell in times when the price is expected to fall, and often seek dividend increases without doing anything to deserve them. If these shareholders control the directors of companies, influence strategies, and seize a substantial amount of profits, then the system of joint stock companies has serious flaws."

The Temporary Funds Adjustment Law crimped equity issues in 1937 by mandating that companies seek permission before issuing. The Corporate Profits Distribution and Fund Raising Order required firms to seek government approval for increases in dividends if the level of payout was greater than 10%, thus making equity unattractive. Still later, the Munitions Companies Act brought companies under the control of government bureaucrats, and they were allowed independence from the shareholders so long as they worked in the interests of the nation. Thus new stock issues, which accounted for 60-75 per cent of net industrial funding in 1935 and 1936 fell to 20 percent of funding by 1944-45.

Japan illustrates yet another point. Once a country walls itself off, the outside world has to be very attractive before it opens up again. Entrenched hierarchies have the power to defend themselves. Once the banks had power, they were unlikely to give it up easily. For example, despite their best efforts to break up the bank firm combines established during the period of militarization, the post-war American occupying forces could not prevent them re-emerging as the Keiretsu or main bank system. Hoshi and Kashyap (1998) find that the effects of the government enforced bank-firm pairing under the designated bank system towards the end of the war persisted long after World War II. Of the 112 companies in 1974 that they found had descended from wartime munitions companies, the financial institution designated by the

government during the war was still the largest lender and one of the top 10 shareholders in 61 of the firms. They found that 88 of the 112 companies still had close ties to their designated institution over 30 years after the war!

Similarly, the Bond Committee, set up ostensibly to improve the quality of bond issuance during the Depression, survived until the 1980s. Even as Japanese industrial firms invaded the rest of the world in the 1970s, their bond markets remained miniscule. It was only in the early 1980s, as Japanese firms decided to borrow abroad rather than depend on their antiquated financial system that Japanese banks had to loosen their stranglehold. The powers of the bond committee were curtailed. The markets had their revenge as the banks paid the price for years of being shielded from competition, made terrible credit decisions and drove Japan into an economic crisis that still persists.<sup>16</sup>

## **2.5. Summary.**

It is useful to summarize our analysis so far. In our view, economic crisis, whatever its origin, led the retreat of financial markets and the concentration of the banking systems around the world. The channel we have argued for is the following: Crisis created a popular groundswell for insurance. The only way for governments to meet this demand was to escape from international discipline -- the fetters of gold in Eichengreen's felicitous terminology. But the barriers erected to international competition, and the dwindling of international capital flows, made it much easier, and more attractive, to erect barriers to internal competition both in the industrial and financial sectors.

Government were willing accomplices in this process of concentration because it made it easier to pursue their own agenda, which was now reinforced by popular legitimacy. The most destructive agendas were those of governments with grievances carried over from the last war. These chose to focus resources on rearmament. Neighbors who were not actively militaristic had to respond because they were directly threatened by those who were arming. Regardless of why governments chose to co-ordinate resource allocation, the course of action was clear; since

markets dance to the tune of profits and prices, and therefore are not responsive to the dictates of government, the sphere of markets had to be narrowed in favor of the sphere of hierarchies.

## **2.6. The Exceptions.**

The analysis we have laid out is based on a composite of experiences in different countries. No country's experience may exactly match the arguments we have put forward. Nevertheless, we believe our narrative is broadly applicable. But we do want to discuss some exceptions.

### *The United Kingdom and its Colonies*

The first is the United Kingdom and by extension, its colonies. As can be seen from the tables, the U.K. emerged from World War II with quite the highest stock market capitalization of the countries in our sample. Equity issues were also significant immediately after the war. Why did the United Kingdom's equity markets not suffer the dramatic reversal that occurred in other countries?

While the United Kingdom may not have suffered as much war damage as France or Germany, it certainly had devoted enormous resources to the war and emerged heavily indebted from it. It is not clear that war damage is sufficient to explain why it had a market capitalization to GDP ratio that was roughly 10 times the size of France's in 1950 even though they had roughly the same ratio in 1913.

One potential explanation is that Common Law provided a stronger bulwark against the government. English common law tradition was shaped by the struggle between the Crown and the aristocracy. As a result, it emphasizes restraining the government in order to protect the individual and his property. Moreover, Common Law is based primarily on judicial precedent, rather than upon the act of a legislator. Thus, a new political climate is less able to transform the structure of society because it has to work its way through the courts, instead of establishing its will on the courts as may be possible in a country belonging to the civil law tradition. Finally, even though Common Law is hard to change from the center, it evolves at the periphery, and

innovates around legislative or administrative roadblocks set up by the center. Perhaps the decentralized nature of the Common Law system, and how it responded to the political anti-market forces can explain why the anti-market backlash was contained in Common Law countries such as the United Kingdom.

The problem with this explanation is that after the Second World War, the Labor government of Clement Attlee nationalized the Bank of England, a number of industries including coal, the railroads, steel, and telecommunications, established free health care under the National Health Service, and in general, intervened to create the first welfare state. In doing so, the United Kingdom went far beyond what had been done on the continent, and the courts did not impede this process. So while Common Law may indeed be less friendly to reversals, it may not be the entire explanation for why the United Kingdom did not turn its back on the financial markets.

Perhaps a more relevant reason for the resilience of financial markets in England, we believe, is the great importance of trade and cross-border financial flows to its national output, and therefore the greater political power relative to industrialists of the traders and financiers that made up “the City”. A dramatic instance of the power of the City was in the post-World War I return to the Gold Standard at pre-war parities. Even though this meant that British price levels and wages had to fall, and as the Treasury’s eminent economist, Ralph Hawtrey, realized, produce an acute unemployment crisis, he did not regard this as sufficient reason to hold back. More important was that London continue to be the financial capital of the world, “for mercantile business tends to be transacted at the centers from which it is financed. The greatest factor in the material prosperity of this country is not manufacturing, important as that is, but commerce. The diversion of commerce to other centers is the severest loss to which we could be exposed.” (cited in Green (1992, p 209))

Thus even as world trade slowed in the 1930s, the City’s concern that it might lose its pre-eminence as an international financial center, with permanent adverse consequences on the country’s future trade, gave it the incentive to serve as a bulwark against the forces wanting to

reverse financial development. Finally, domestic industrial finance was only a small part of the City's business. The City was much more powerful than the forces wanting to control the spigot of industrial finance. With the City possessing both the incentive and the power to oppose attempts to control the financial sector, it is no wonder these were not seriously initiated.

As a final thought on the importance of the City, even while the post-war Labor government nationalized industries left and right, it left the banking sector (except for the Bank of England) untouched. It is strange that a party wishing to occupy the commanding heights of the economy should leave the source of the life-blood of the economy alone, unless of course it was simply not politically feasible to meddle with it.

#### *The United States*

As Roe (1994) argues, popular political forces have always kept the financial sector in the United States from becoming too concentrated or powerful. Examples abound; Andrew Jackson's refusal to renew the charter of the Second Bank of the United States, the setting up of the Federal Reserve Board to curb the power of J.P. Morgan, and the Glass Steagall Act to curb the power of the universal banks. It would be hard to argue that the financial sector survived, as it did in the United Kingdom, because it was untouchable.

Instead, we believe the United States did not "corporatize" and in the process curb the financial sector, in large part because of the inherent decentralization of the system – the checks and balances that prevented speedy radical change. That Roosevelt genuinely felt the way to address the desire of the people for insurance was through government intervention is hard to doubt. He declared that people had a right to three types of security: "decent homes to live in", "productive work", and "security against the hazards and vicissitudes of life". Furthermore, quoting from a progressive statesman, Elihu Root, he said in a fireside chat in September 1934<sup>17</sup>, "The tremendous power of organization has combined great aggregations of capital in enormous industrial establishments...so great in the mass that each individual concerned in them is helpless by himself...The old reliance upon the free action of individual wills appears quite inadequate...The intervention of organized control we call government seems necessary."

Roosevelt clearly wanted to intervene to curb the excess volatility created by the product and financial markets. We have already seen why his primary vehicle for doing so, the National Recovery Administration, failed; it was declared unconstitutional by the Supreme Court because Congress had “impermissibly delegated its inalienable lawmaking authority to the NRA”.<sup>18</sup> Faced with repeated challenges to his program in the Supreme Court, Roosevelt tried to pack the court by proposing to add more judges that he would appoint. There was strong opposition to this move even within his own party.

In an interesting twist, the Supreme Court suddenly dropped all opposition to Roosevelt’s New Deal legislation, and the threat to pack it became a dead letter. But as historian David Kennedy points out, this was a pyrrhic victory. Roosevelt’s fight against the Court brought together an opposing conservative alliance, which became nervous about growing executive powers, and growing threats to property. This coalition ensured that Congress, rather than the now pliant Supreme Court, held up much of the pending New Deal legislation.<sup>19</sup>

It is not our intent to suggest that Roosevelt was trying to become a dictator and all that stopped him was the de-centralized system. Roosevelt himself did not ask for certain powers, even though at one point he could have had them, for fear of the power this would confer on future presidents.<sup>20</sup> All we want to point out is that the times and the people almost uniformly seemed to demand government action against the forces of the market, and the de-centralized system in the United States checked these actions.

We have emphasized institutional checks, though the instinctive, almost ideological, American fear of centralized power was also instrumental in the growing opposition to Roosevelt’s plans. It is, however, hard for institutions to permanently hold up the will of the masses in a democracy. All they can do is delay. In our view, the checks and balances in the United States served to delay anti-market legislation until the onset of the Second World War and the subsequent return to full employment. With insurance no longer being an important popular

concern, anti-market legislation did not have popular support and was dropped. The uninterrupted post-war prosperity ensured that it never again became a serious threat.

### *Sweden*

While beset by many of the same forces as the other European countries, Sweden (and Scandinavia in general) arrived at a different solution. While autarky was a possibility for larger economies like France, Germany, and Italy, firms in Sweden had become big while servicing export markets. The Swedish market, by itself, was too small. So the Liberal coalition resisted a move to autarky and the associated intervention in the markets (see Gourevitch (1986)).

However, there were powerful forces against the liberals. The proverbial straw was when the Swedish Workers party (later the Social Democrats) and the Agrarian party came together in 1932 in what has been termed the cow trade. The Social Democrats accepted higher food prices and price supports in return for stable wages, policies for full employment, and social services. The business interests, dominated by the large internationally oriented firms first opposed this coalition, but became more accommodating when the Social Democrats became stronger in the election of 1936. In 1938, in the town of Saltsjobaden, labor, business, farming, and the government hammered out a pact by which the demands of parties to the cow trade were respected by business in return for assurances about labor peace, continued private control over property and capital markets, and external openness. A similar consensus was also reached in Norway in 1935 and Denmark in 1933 (see Gourevitch (1986)).

Thus Scandinavia adopted a middle path in the inter-war years, between the relatively market oriented internationalism of the United Kingdom, and the autarkic, interventionist, policies of Germany. The continued openness at least in product markets ensured that there was competition in those markets, and reduced the incentive to mute domestic competition by repressing the financial markets. Nevertheless, since the consensus was between incumbents, it inevitably translated into actions that reduced the role of the financial markets, especially because

international capital flows were moribund. Interestingly, the post war consensus in much of Western Europe resembled the Scandinavian one.

### **2.7. The Aftermath of World War II, Bretton Woods, and its Consequences.**

The argument thus far has been that external openness weakens natural anti-market forces and thus facilitates strong arm's length financial markets and a competitive banking system. The degree of openness is often, though not always, endogenous, and depends on the constellation of political forces for and against it, as well as the economic gains they expect from change (see Gourevitch (1986), Rogowski (1989), O'Rourke and Williamson (1999)). We will, for the moment, postpone the question of what causes a country to become open. Instead, we will ask "Is it necessary for a country to be open to both trade and capital flows for it to have well functioning financial markets and competitive institutions?"

If incumbents in industry have the power to retard financial development, then they have the least incentive to do so when they face foreign competition in product markets, and foreign capital flows prevents them from starving potential domestic entrants of finance. Alternatively, institutions in the domestic financial sector have no way of protecting their industrial clients if foreign capital will finance insurgents. Finally, institutions in the domestic financial sector will not keep domestic markets repressed if domestic firms can escape to foreign financial markets. Thus while openness in trade helps, it is the combination of foreign competition in the product markets and free access to foreign financing that really lowers the political impediments to financial development.

This then gives us a better understanding of the developments after World War II. The Bretton Woods agreement in 1944 advocated movement towards free trade in goods while keeping strict controls on capital flows. As Keynes, its architect, said (cited in Helleiner (1994, p164)

"Not merely as a feature of the transition but as a permanent arrangement, the plan accords every member government the explicit right to control all capital movements. What used to be heresy is now endorsed as orthodoxy."

The rationale was clear. Fixed exchange rates would facilitate trade in the same way as did the Gold Standard. But if capital was allowed to flow freely, it would hamper the ability of governments to provide the various sorts of insurance that was demanded of them by the new welfare states. Thus the argument for capital controls and the second class status accorded to finance in the post-war economic order.

The story of the eventual breakdown of the Bretton Woods system has been told many times and elsewhere (see Eichengreen (1996) for a comprehensive and accessible treatment). But the role played by concerted political action has been underemphasized. As Helleiner (1994) argues, even though in the early 1970s Europe and Japan were interested in perpetuating the system of controls, the United States was opposed. For one, the United States with its strong domestic financial institutions eyed the profits to be made in the protected and underdeveloped foreign financial markets. Equally important, the United States hoped its well developed financial markets would attract foreign investors, an especially attractive prospect given the large U.S. fiscal and trade deficits. Britain was also interested in doing away with capital controls because it wanted London to re-emerge as a financial center even though the United Kingdom had long ceased to be the primary exporter of capital in the world. Therefore even in the 1960s, Britain encouraged the growth of the Eurodollar market in London.

The United States removed capital controls in 1974, and this was followed soon after by the deregulation of broker fees on the NYSE in 1975. The United Kingdom responded to the competitive pressure from the United States by following suit on capital controls in 1979, and on deregulating the exchanges with the Big Bang in 1986. By the end of the 1980s, controls had effectively been removed throughout Continental Western Europe, Scandinavia, and Japan. We believe that this has spurred the enormous amount of financial development in the 1990s. In particular, we believe the formation of the European Monetary Union has opened up domestic financial systems to immense competition and has been instrumental in the creation of new

markets around Continental Europe. As Kukies (1999) points out, the main distinguishing feature of the successful new markets is not so much that they have required new laws or have stricter listing requirements than the exchanges that existed before, but they have better disclosure requirements. What is also interesting is that these fledglings have been typically supported by the main financial markets and institutions in the country. While we believe that mandating better disclosure is an important aspect of financial development (see La Porta et al (1998), Rajan and Zingales (1998a)), we have to believe that it was not the inherent difficulty of setting disclosure rules that prevented these exchanges from being born earlier. Instead, we believe it was the support of the patrons that was lacking, and it required the threat of foreign competition to make the exchanges a reality.

### **III. A testable hypothesis, a test, and results.**

What we have offered thus far is our reading of history. We have argued that domestic politics matters in determining financial development, and may explain the reversals in financial development that have taken place in the twentieth century better than other economic or institutional variables. An important part of our argument is that the incentive to retard domestic financial development is likely to be the least when the country's product and financial markets are open. This suggests a possible testable hypothesis: a country's financial development should be positively correlated with its degree of openness to product and capital flows.

A second part of our argument is that even when the anti-market forces have power, and they have protected themselves from external influences, their ability to constrain the scope of the market depends on the degree of the country's centralization. So we would see more propensity for reversal in countries that are more centralized. This part of our argument has been verified in some measure by Fohlin (2000), and we will refer readers to her work.

#### **3.1. Preliminary concerns.**

There are three immediate issues to deal with before we proceed to tests. First, what is the relevant measure of financial development from the perspective of our theory? Second, could

there be problems of reverse causality, and if so, what are the possible remedies? Third, is openness not endogenous, and if so, how do we deal with it?

*The Relevant Measure of Financial Development.*

As we have argued, the amount of funds raised from arm's length financial markets or the amount of credit offered by competitive banking systems could be measures (albeit crude) of financial development. Unfortunately, we do not know how competitive the banking system is – we only have measures of the quantity of deposits. The banking system could be concentrated and captive to incumbent interests, dominated by state owned banks, or just plain inefficient. Therefore, we prefer to use the size of the arm's length financial markets as our measure of development. This also accords well with the view that arm's length markets will emerge only when financial infrastructure such as disclosure requirements and investor protection is reasonably developed (see La Porta et al. (1998)), while banks can exist even when it is primitive (also see Rajan and Zingales (1998b)).

Next, we have to choose between stocks and flows. The most commonly used measure of equity and bond market development is their capitalization. But a firm's equity market capitalization may have little correlation with the amount of funding actually obtained from the equity markets. So a better measure of how much funding is obtained is equity issues and bond issues. However, reported bond issues may or may not net out bond refunding. For our purposes, the net number is more appropriate because it represents how much additional market financing is available. Unfortunately, most old sources are not very precise on what measure is reported, so we will use bond issues as a measure of development only when we believe they are net numbers, and have been consistently treated across countries. Finally, we need a number to normalize total issues by. We will use gross fixed capital formation when we have it for the majority of countries, otherwise we will use GDP.

We will use the ratio of the sum of exports and imports of goods to GDP as our measure of openness (we will shortly explain why we do not use capital flows). We will need a proxy for

the demand for financing. Bairoch (1982) calculates an index of industrialization across a group of countries for a number of years. The index number in a year reflects a country's absolute level of industrialization in that year, with England in 1900 set at 100. There are measurement issues with any index, but this one seems well accepted among economic historians. Bairoch's index will be our preferred control for the demand for financing whenever it is available. We will use per capita GDP when Bairoch's numbers are not available.

*Problems of Reverse Causality.*

We must also be cautious about the problem of reverse causality. Foreigners may choose to invest in a country, or raise financing from it, when its financial infrastructure is highly developed. This is why we cannot use cross-border capital flows as a measure of openness because it may be directly connected with financial development. In practice, there were few impediments to cross-border capital flows before 1929, and there are few today. On the other hand, cross-border flows were heavily restricted in the Bretton Woods era, and negligible in the 1970s. Therefore, our hypothesis has the strongest likelihood of holding in both the early and late part of the 20<sup>th</sup> century.

Even trade in goods may generate transactions on the capital market. In the early part of this century, other countries financed their imports of goods from England by raising money in London. Therefore, there may be a direct link between the volume of transactions on the capital market and trade. For this reason, we only use issues or capitalization of domestic companies as our measure of financial development. This should not be mechanically linked to the volume of trade.

A less compelling argument is that financial transactions generated by trade in goods could spur domestic financial development (at the very least by increasing liquidity in financial markets). While this may have been important in the past, we are skeptical that it is of immense importance in the modern industrial economy. Moreover, if trade drives financial development directly, it should also do so during the Bretton Woods era. We will check for this. However, to

directly address this issue, we will use an alternative measure of openness that is not directly related to volume, the tariff levels in a country.

### *Problems of Endogeneity*

There is a large literature (see, for example, Gourevitch (1986), Rogowski (1989), O'Rourke and Williamson (1999)) arguing that the decision to open up or close down an economy to trade is a political one, based on the relative strengths of the sectors that stand to gain or lose from openness. Our point is related in that we examine the incentives of incumbents, both in the financial sector and in the industrial sector, to press for financial development. But implicit in our argument is that there may be common factors determining both the degree of openness and the degree of financial development.

For example, if incumbents in the industrial sector are very efficient (perhaps because of an abundance of capital), they may welcome the opportunity to trade. Also, because they are so efficient, they may not fear domestic competition. As a result, they may welcome financial development. The point here is that trade openness and financial sector development are both politically determined, but the former need not directly influence the latter.

The correlation stemming from a common causal variable is certainly consistent with our political view of financial development, but we are also interested in the direct effect of openness on financial development, because evidence of such an effect would give greater credence to the details of our theory. One way to partially correct for the omitted variable is to include it -- in this case include a measure of the efficiency of the industrial sector. Bairoch's measure of per capita industrialization is a reasonable proxy.

A second method is to use a pre-determined measure of openness or to use an instrument for openness that is correlated with openness but not with financial development. We will do both in the analysis.

### **3.2. Issues in 1913.**

We obtained data on total public issues by domestic firms in a set of countries in 1912 from the 1915 Bulletin of the International Statistical Institute in Vienna. There are more countries in this ISI sample than we have in our 1913 sample (which we have put together from individual sources in each country), so we go with the ISI sample in our preliminary tests. We have checked that the data in the ISI sample seem accurate by comparing with independent sources, and they do seem to represent net rather than gross issues. Our dependent variable is total issues to GDP in 1912.

Our explanatory variables are the index of industrialization, and the index of industrialization interacted with the degree of openness in the economy. Intuitively, more openness implies more of the demand should be financed through arm's length markets, hence we expect the coefficient on the interaction term to be positive.

We first present summary statistics and pairwise correlations between the various variables in Table V a and b. The ratio of issues to GDP is positively correlated with the index for industrialization (0.43,  $p=0.07$ ), the per capita GDP in dollars (0.04,  $p=0.87$ ), and with openness (0.33,  $p=0.17$ ), and negatively correlated with tariffs on manufacturing (-0.28,  $p=0.28$ ). The correlation with the interaction between the index of industrialization and openness is both high and very significant (0.69,  $p=0.002$ ).

In Table Vc, we present coefficient estimates of regressions in which the dependent variable is issues to GDP in 1912. When we include only the index of industrialization as an explanatory variable (column (i)), it has a positive estimate but is significant at only the 10 percent level. When we include both the index of industrialization and the interaction in column II, the coefficient of the interaction term is highly statistically significant ( $p=0.011$ ). The magnitude of the effect is also large. A one standard deviation increase in the interaction term increases the ratio of issues to GDP by 58 percent of its standard deviation. Interestingly, the estimated direct effect of the index of industrialization falls to a sixth of its value in the previous column, and now is statistically insignificant.

Since we have so few observations, we plot issues against the index of industrialization in Figure 1, and against the interaction variable in Figure 2 to show that the results are not driven by outliers. In particular, the reason the index of industrialization does not explain issues so well is because some heavily industrialized countries were relatively closed and issued little (e.g., the United States) at this time.

Recall that the endogeneity of openness may be a concern. One way to address this is to find some variable that is correlated with openness, but not with financial development. One such variable may be the size of the country. Small countries typically have to be more open since it is difficult to manufacture everything internally. So we include the interaction between the index of industrial production and the country's population in 1913 as an instrument. The resulting two stage least squares estimate in column III is about 25% larger in magnitude and still statistically significant at the 5% level.

Another concern may be that we proxy for openness with the volume of goods traded, and there may be a disguised link between the volume of trade and the volume of financing. One measure of openness that is not directly a measure of volume is the tariff on manufactured goods. We use this as a proxy for the extent of openness in column IV, and the two stage least squares estimate (using the same instrument as in the previous column) is negative and significant.

Finally, one might think that anything interacted with the index of industrialization will produce a strong positive coefficient on the interaction term. This is not the case. For example, if we interact a dummy indicating whether a country has a common law origin with the index of industrialization and include it in the regression we find a negative and highly significant coefficient (column v). The direct pairwise correlation between the common law indicator and issues to GDP is also negative (-0.24,  $p=0.32$ ) suggesting this finding is not simply an artifact of the interaction. Finally, including the Common Law indicator as a separate variable instead of as an interaction also produces a negative coefficient. At least in our sub sample, Common Law countries use markets relatively less for financing for any given amount of industrialization.

To confirm the findings from this data set, we plot graphs of three other measures of market development in 1913 vs the interaction variable. The three measures are the market capitalization of domestic stocks (Figure 3) and the number of listed companies per million of population (Figure 4). Both confirm the relationship we document earlier, and even though we have a embarrassingly small number of observations, the coefficient is significant at conventional levels (regressions not reported).

### **3.3. Issues in subsequent years.**

We do not have enough data points for the years 1929-1980 at this point to be confident of our estimates. Nevertheless, the trend we observe seem to be the following. Using the measure of openness calculated in 1913 in all subsequent years as a “natural” measure of a country’s propensity to be open to trade, we re-estimate a regression similar to the one in column (ii) of Table Vb, except that the dependent variable is the ratio of equity issues to gross fixed capital formation, and the explanatory variables are the index of per capita industrialization estimated by Bairoch for that year, and the interaction between the index and openness.<sup>21</sup> It turns out that the coefficient estimate for the interaction is positive but not significant in 1929 (its magnitude is similar to that in 1913) and much smaller in 1938. In the post World War II years, it turns negative but not significant in 1950, 1960 and 1970, and is negative and significant in 1980. Thus over the period that trade expanded but cross-border capital flows were still discouraged, countries that had historically been more open were not financially more developed. To some extent, the backlash may have been even more severe in those countries. Finally, when we include a common law dummy instead of the interaction, we find that it is only post World War II that the coefficient turns positive. Thus the greater importance of equity financing in Common Law countries seems to be, at best, a post World War II phenomenon, at least in our sample of countries.

### **3.4. Equity Issues in 1999**

We do not have Bairoch's measure of per capita industrialization for any country in 1999. Therefore we use the log of 1+ 1999 per capita GDP in thousands of dollars instead, both as a stand alone explanatory variable and in the interaction with openness (as measured in 1913). It turns out now (Table V c column (I)) that the interaction is strongly positive and significant at the 1% level. Thus the effect of openness on financial development has begun to reassert itself again, perhaps as a result of free cross border capital flows in most countries today.

To check this is nothing specific to the small sample of countries for which we could get data in 1913, we also use the ratio of equity issues by domestic firms to gross fixed capital formation, as reported by FIBV averaged over 1998 and 1999. We have this for a much larger sample of countries. Again the coefficient estimate (see Table V c, column (ii)) on the interaction variable is positive and statistically significant at the 5 % level (we calculate openness in 1998 since many countries today were not free or did not exist in 1913). We graph in Figure 5 the relationship between equity issues and the interaction to show that the estimated relationship is representative. The interaction continues to be statistically and economically significant if we use as dependent variable the number of companies per million population, or the market capitalization to GDP ratio in 1999.

Finally, when we replace the interaction variable with the Common Law indicator, or with its interaction with log per capita GDP, the coefficient estimate is positive but no longer significant when the dependent variable is equity issues or market capitalization, and is strongly significant only for the number of listed companies. Given the limited number of observations, we must be cautious about strong conclusions, but the data suggest again that the relative importance of equity in Common Law countries may have been a phenomenon of the era of restricted capital flows.

#### **IV Discussion and Conclusion.**

We have attempted to verify one aspect of our theory – that the incentive for incumbents to suppress competitive domestic access to capital by retarding financial development is muted when the economy is open to trade and capital flows. We find this to be true both in the pre-World War I era and at the end of the century, both periods when capital flowed relatively freely across borders.

We also find that Common Law countries appear to be more favorable to arm's length finance only in the periods when cross-border flows were severely restricted in most of the world. If this result holds up to further scrutiny, it suggests that Common Law countries were less prone to reverse prior financial development, and not that their legal system intrinsically favors financial development (at least in a way that cannot be imitated – see Rajan and Zingales (1999)). Perhaps, as we have suggested, the internal constraints on reversal were much stronger than those that existed in the more centralized Civil Code countries. Perhaps also, Common Law countries were more open to external influence (for example, through the Commonwealth) than Civil Code countries, and this advantage is becoming less important as other countries open up. These are only conjectures at present and deserve further research.

From a policy perspective, there are two important implications of our work. First, it does not seem that legal or cultural impediments to financial development are as serious as one might have concluded from the recent literature. Somewhat facetiously, one does not have to have the good fortune of being colonized by the British to be able to have vibrant financial markets.

However, the main impediment we identify – the political structure within the country – can be as difficult to overcome as more structural impediments. Nevertheless, our second main implication is that to the extent a country can be coaxed to be open, it makes it less easy for domestic incumbents to retard financial development.

By contrast, closing down the foreign window can be more detrimental than current analyses admit. For example, unilateral capital controls imposed by a country can have long term consequences that far outweigh issues like credibility to foreign investors that have been the focus

of recent debates. The cost to Malaysia of the recent controls may not be so much that foreign investors are wary of a repeat, but that domestic financial institutions were merged in a non-transparent way during the period of controls – a way that appears to favor the current political establishment.

We are also ambivalent about the role played by international organizations. On the one hand, they had, and still have, a tremendous effect in promoting the cause of openness in many countries. The European Union, for instance, is more pro-market than any of its individual members (with the possible exception of the United Kingdom). The World Trade Organization helps prevent tariff wars, which proved to be so devastating in the 1930s. On the other hand, the centralization of political power in these organizations runs the risk of weakening the salutary role of outside forces. In a hypothetical new world order, ruled by a supranational Government, outside forces would disappear. There would be no foreign countries to emigrate to, no foreign markets to raise capital in, no foreign competitors to enter domestic product markets and challenge incumbents. A supranational Government will find it easy to intervene, cross-subsidize, and regulate when the internal domestic forces demand it. The threat to development and competition is obvious.

The fundamental message of our work is that we should be cautious against taking for granted that financial development is unidirectional, and that the current generalized consensus in favor of markets is irreversible because of their obvious efficiency. We say this not simply because of a myopic belief that history repeats itself, but because there are sound arguments for why in time of crises a political backlash against markets may occur, which may have very long-term consequences. Thus, even in times of prosperity (in fact, precisely in those times) it is wise to generate some forms of safety net, to minimize the strength of an anti-market revolt in a time of crisis. This is beneficial even if it has some cost in terms of efficiency. An interesting example of this is presented by Roe (1998) in his analysis of the different methods of land privatization in the Americas during the 19<sup>th</sup> century. Argentina sold state land in big lots. This generated large

revenues and lead to the creation of latifundia, which at the time were the efficient method of farming. The United States, instead, donated small lots of land to those farmers who were willing to settle on them. This form of organization was economically less efficient, but more stable politically. At the onset of the first great agricultural crisis, Argentinean landlords fired a large number of workers who converged to Buenos Aires in search of jobs. This large mass of unemployed became easy fuel for populist anti-market movements, with consequences that are well known. By contrast, American farmers held on to their piece of land, strongly supporting property rights and guaranteeing the survival of the market economy.

The need for some safety net is even more important today, given the potential sources of political tensions looming in front of us. One comes from technological change. While extremely beneficial, technological change has enormous distributional effects, which are amplified by markets. For example, in the United States the wage differential for college graduates has been increasing for the last thirty years. So has the return to talent. When the opportunities faced by talented young college graduates in a dot com today are contrasted with the bleak prospects of the high school educated worker in manufacturing, the potential for conflict over distribution seems considerable.

The other potential source of political tension, which ties into the first in many ways, is the progressive aging of the population (at least in the most developed economies), with the consequent need to pay for unfunded pension plans. This will also increase the demand for redistribution and the pressure for more anti-market intervention.

Thus far, the nation state has been able to cross-subsidize both across citizens, and over time, because the tyranny of location has been inescapable. As technology makes location less critical, the insurance nation states have been able to provide becomes less feasible, without much stronger restrictions on what is permissible. For the survival of financial markets, and in general of market economies, we have to find reasonable ways to preempt these sources of political tensions. Hopefully, the world will do better than it did after 1913.

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Table 1

## Evolution of the ratio of Deposits to GDP

	1913	1929	1938	1950	1960	1970	1980	1998
<b>Argentina</b>	0.29	0.36	0.36	0.30	0.23	0.19	0.28	0.24
<b>Australia</b>	0.52	0.59	0.61	0.53	0.29	0.34	0.37	0.63
<b>Austria</b>	1.16	0.37	0.33	0.19	0.28	0.44	0.16	0.24
<b>Belgium</b>	0.68	0.48	0.69	0.17	0.17	0.26	0.31	0.84
<b>Brazil</b>	0.13	0.22	0.24	0.26	0.17	0.15	0.18	0.28
<b>Canada</b>	0.22	0.26	0.16	0.39	0.37	0.35	0.45	0.58
<b>Chile</b>	0.16	0.15	0.09	0.11	0.09	0.12	0.18	0.49
<b>Cuba</b>								
<b>Egypt</b>	0.01			0.17	0.16	0.13	0.16	0.09
<b>France</b>	0.42	0.44	0.36	0.15	0.18	0.30	0.40	0.69
<b>Germany</b>	0.53	0.27	0.25	0.20	0.31	0.46	0.49	0.60
<b>India</b>	0.04	0.07	0.09	0.10	0.13	0.15	0.30	0.45
<b>Italy</b>	0.41	0.37	0.53	0.22	0.52	0.69	0.75	0.43
<b>Japan</b>	0.19	0.18	0.99	0.20	0.16	0.22	0.79	1.11
<b>Netherlands</b>	0.22	0.32	0.52	0.17	0.11	0.47	0.52	0.75
<b>Norway</b>	0.65	0.89	0.56	0.52	0.43	0.49	0.30	0.53
<b>Russia</b>	0.21							0.16
<b>South Africa</b>		0.09	0.16	0.16	0.17	0.15	0.31	0.54
<b>Spain</b>	0.07	0.24	0.24	0.33	0.37	0.53	0.44	0.64
<b>Sweden</b>	0.69	0.69	0.73	0.59	0.54	0.50	0.48	0.41
<b>Switzerland</b>	0.93	1.08	1.13	0.79	0.78	0.69	0.69	0.66
<b>UK</b>	0.50	0.33	0.45	0.53	0.25	0.20	0.29	1.11
<b>US</b>	0.33	0.33	0.44	0.46	0.38	0.42	0.30	0.30

Table 2

## Evolution of Fraction of Gross Fixed Capital Formation Raised via Equity

	1913	1929	1938	1950	1960	1970	1980	1998
<b>Argentina</b>					0.01		0.01	0.02
<b>Australia</b>		0.13		0.09	0.04	0.05	0.05	0.15
<b>Austria</b>		0.07			0.03	0.07	0.00	0.03
<b>Belgium</b>	0.23	0.85	0.03		0.09	0.08	0.03	0.06
<b>Brazil</b>				0.20	0.19	0.19	0.06	0.27
<b>Canada</b>		1.34	0.02	0.03	0.03	0.01	0.04	0.07
<b>Chile</b>			0.00		0.00	0.00	0.00	0.01
<b>Cuba</b>								
<b>Egypt</b>								0.31
<b>France</b>	0.14	0.26	0.03	0.05	0.05	0.04	0.06	0.12
<b>Germany</b>	0.07	0.17	0.06	0.00	0.04	0.02	0.01	0.06
<b>India</b>						0.00	0.00	0.08
<b>Italy</b>	0.07	0.26	0.03	0.02	0.08	0.02	0.04	0.12
<b>Japan</b>	0.08	0.13	0.75		0.15	0.03	0.01	0.08
<b>Netherlands</b>	0.38	0.43	0.45	0.02	0.02	0.00	0.01	0.67
<b>Norway</b>		0.05	0.01					
<b>Russia</b>	0.17							
<b>South Africa</b>						0.33	0.08	0.14
<b>Spain</b>	0.01	0.33		0.08	0.11	0.07	0.03	0.10
<b>Sweden</b>	0.08	0.34	0.06	0.01	0.03	0.00	0.00	0.10
<b>Switzerland</b>					0.02			
<b>UK</b>	0.14	0.35	0.09	0.08	0.09	0.01	0.04	0.09
<b>US</b>	0.04	0.38	0.01		0.02	0.07	0.04	0.12

Table 3  
Evolution of Stock Market Capitalization over GDP

	1913	1929	1938	1950	1960	1970	1980	1998
<b>Argentina</b>	0.17				0.05	0.03	0.11	0.15
<b>Australia</b>	0.13	0.43		0.38	0.45	0.68	0.34	0.93
<b>Austria</b>	0.76						0.03	0.17
<b>Belgium</b>	0.99	1.78			0.32	0.23	0.09	0.82
<b>Brazil</b>	0.16						0.19	0.22
<b>Canada</b>			1.00		1.59	1.75	0.42	1.22
<b>Chile</b>	0.17				0.12		0.22	0.73
<b>Cuba</b>	2.19							
<b>Egypt</b>	1.09				0.15		0.01	0.29
<b>France</b>	0.78		0.19	0.08	0.28	0.16	0.09	1.17
<b>Germany</b>	0.45	0.35	0.18	0.15	0.35	0.16	0.09	0.67
<b>India</b>	0.02	0.07	0.07	0.07	0.07	0.06	0.05	0.46
<b>Italy</b>	0.17	0.23	0.26	0.07	0.42	0.14	0.07	0.68
<b>Japan</b>	0.49	1.20	1.81	0.05	0.36	0.23	0.33	0.95
<b>Netherlands</b>			0.74	0.25	0.67	0.42	0.19	2.03
<b>Norway</b>								
<b>Russia</b>	0.18							0.11
<b>South Africa</b>				0.68	0.91	1.97	1.23	1.20
<b>Spain</b>							0.17	0.69
<b>Sweden</b>	0.47	0.41	0.30	0.18	0.24	0.14	0.11	1.77
<b>Switzerland</b>								3.23
<b>UK</b>	1.09	0.00	1.92	0.86	1.15	1.99	0.38	2.25
<b>US</b>	0.41	0.75	0.56	0.33	0.61	0.66	0.46	1.52

Table 4

## Evolution of Number of Listed Companies per Million People

	1913	1929	1938	1950	1960	1970	1980	1998
<b>Argentina</b>	15.29				26.78	15.58	9.85	3.63
<b>Australia</b>	67.62	76.92	84.88	122.15	93.68		68.50	65.17
<b>Austria</b>	39.10	42.64	30.30	16.38	13.43	12.16	8.80	12.13
<b>Belgium</b>	108.66			55.09	42.60	38.39	22.85	14.33
<b>Brazil</b>	12.43	9.85	5.17			4.32	4.06	3.60
<b>Canada</b>				66.61	62.43	55.20	50.51	111.32
<b>Chile</b>	20.78				44.52	38.72	20.82	19.37
<b>Cuba</b>	12.69							
<b>Egypt</b>	16.58	13.44			10.58	1.76		13.71
<b>France</b>	13.22		24.57	28.61	20.36	16.98	14.74	15.75
<b>Germany</b>	15.80	12.52	10.91	13.22	11.33	9.07	7.46	11.09
<b>India</b>	0.82	1.81	2.59	3.13			3.11	6.48
<b>Italy</b>	6.32	6.40	3.11	2.70	2.79	2.46	2.36	4.54
<b>Japan</b>	7.53	16.65	19.48	9.15	8.35	15.19	14.80	20.00
<b>Netherlands</b>					31.61	23.95	21.16	20.29
<b>Norway</b>	33.10	49.02	54.50	58.19	52.44	39.44	31.07	56.77
<b>Russia</b>	2.02							0.81
<b>South Africa</b>				69.05	60.93	51.39	42.48	15.86
<b>Spain</b>							25.20	22.25
<b>Sweden</b>	20.64	16.36	14.93	12.83	14.04	13.18	12.39	31.46
<b>Switzerland</b>						58.72		34.01
<b>UK</b>	47.06						47.22	31.11
<b>US</b>	3.84	6.92	6.52	6.94	6.33	6.59	23.11	28.88

Table 5

## Issues to GDP in 1912

## V a. Summary Statistics

	Mean	Standard Deviation	Minimum	Maximum	Observations
Issues to GDP in 1912	.022	.017	.002	.055	19
Per Capita Industrialization	50	36.44	6	126	18
Openness (Trade Volume/GDP)	.60	.58	.006	2.6	19
Tariffs	11.48	7.07	0.4	29.5	17
Interaction of Per Capita Industrialization and Openness	30.5	32.5	.06	118.67	18

## V b. Pairwise Correlations Between Variables (Significance in Parentheses)

	Issues to GDP in 1912	Per Capita Industrialization	Openness (Trade Volume/GDP)	Tariffs
Per Capita Industrialization	0.43 (0.07)			
Openness (Trade Volume/GDP)	0.33 (0.17)	0.04 (0.87)		
Tariffs	-0.28 (0.28)	-0.05 (0.85)	-0.52 (0.03)	
Interaction of Per Capita Industrialization and Openness	0.69 (0.00)	0.55 (0.02)	0.71 (0.001)	-0.37 (0.15)

V c. OLS Regression for Cross-section of 18 Countries in 1912-13: Dependent Variable Issues to GDP.

Issues to GDP is the sum of equity and bond issues by domestic firms in 1912. Per Capita Industrialization is the index of industrialization for that country in 1913 as computed by Bairoch (1982). Openness is the sum of exports and imports of goods in 1913 obtained from the League of Nations Yearbook divided by GDP in 1913. Tariffs are import duties as a percentage of special total imports (1909-1913) obtained from Bairoch (1989). Common Law indicator is 1 if the country is classified as having a Common Law system. All coefficient estimates and standard errors are multiplied by 1000. Standard errors are in parentheses. Column (iii) and (iv) contain two stage least squares estimates. (\*) indicates significant at the 10% level, (\*\*) at the 5% level, (\*\*\*) at the 1 % level.

	(i)	(ii)	(iii)	(iv)	(v)
Per Capita Industrialization	0.184* (0.096)	0.03 (0.09)	-0.006 (0.11)	0.51** (0.22)	0.41*** (0.1)
Interaction of Per Capita Industrialization and Openness		0.3*** (0.1)	0.39** (0.15)		
Interaction of Per Capita Industrialization and Tariffs				-0.026* (0.014)	
Interaction of Per Capita Industrialization and Common Law Indicator					-0.3*** (0.09)
Adjusted RSq	0.14	0.41	0.39	-0.07	0.46
Observations	18	18	18	17	18

VI OLS Regression for Cross-section of Countries in 1998-99: Dependent Variable Equity Issues to Gross Fixed Capital Formation.

Equity Issues to GFCF is the ratio of Equity issues by domestic firms to Gross Fixed Capital Formation averaged over 1998-99. Log Per Capita Gross Domestic Product is in dollars. Openness in 1913 is the sum of exports and imports of goods in 1913 obtained from the League of Nations Yearbook divided by GDP in 1913. Openness in 1998 is the sum of exports and imports of goods in 1998 divided by GDP in 1998. Common Law indicator is 1 if the country is classified as having a Common Law system. Standard errors are in parentheses. (\*) indicates significant at the 10% level, (\*\*) at the 5% level, (\*\*\*) at the 1 % level.

	(i)	(ii)	(iii)
Log Per Capita GDP	-0.122*** (0.034)	-0.03 (0.025)	-0.003 (0.11)
Interaction of Log Per Capita GDP and Openness in 1913	0.014*** (0.04)		
Interaction of Log Per Capita GDP and Openness in 1998		0.051** (0.023)	
Common Law Indicator			0.02
Adjusted RSq	0.61	0.07	-0.05
Observations	17	38	37

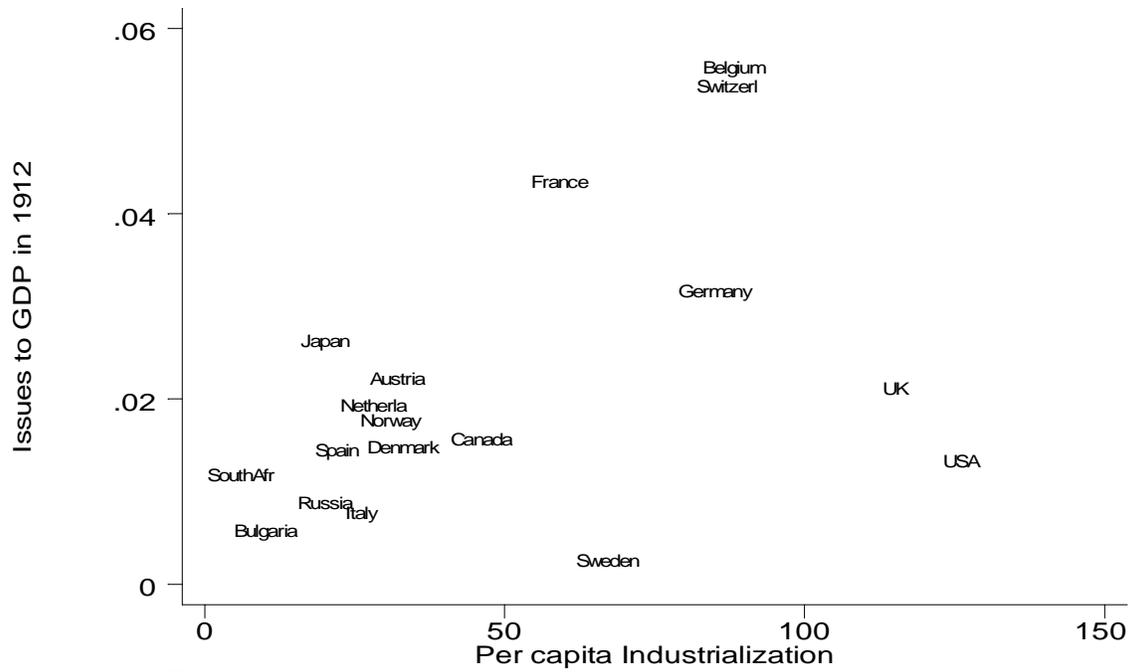


Figure 1: Issues in 1913 vs industrialization

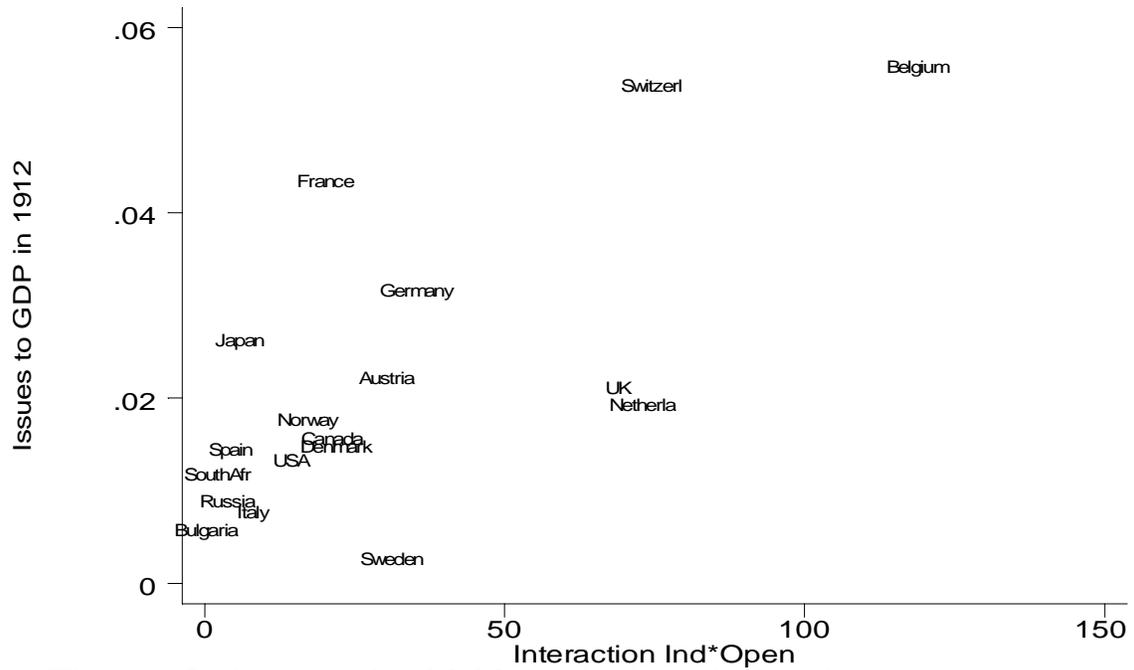


Figure 2: Issues in 1913 vs industrialization \* openness

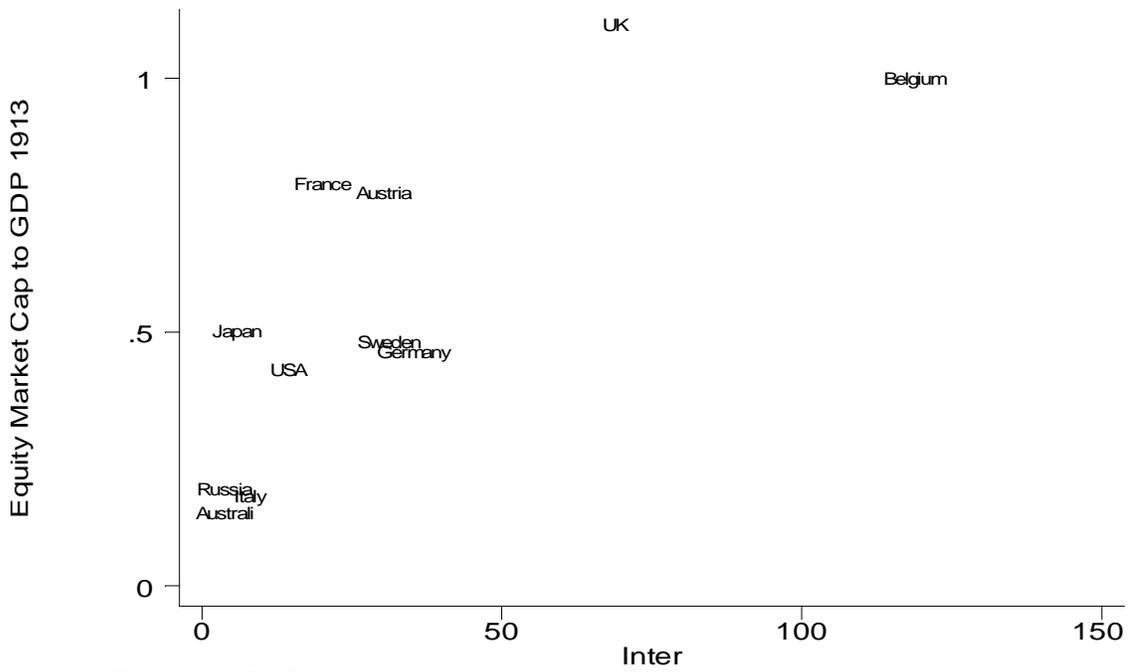


Figure 3: Capitalization in 1913 versus interaction

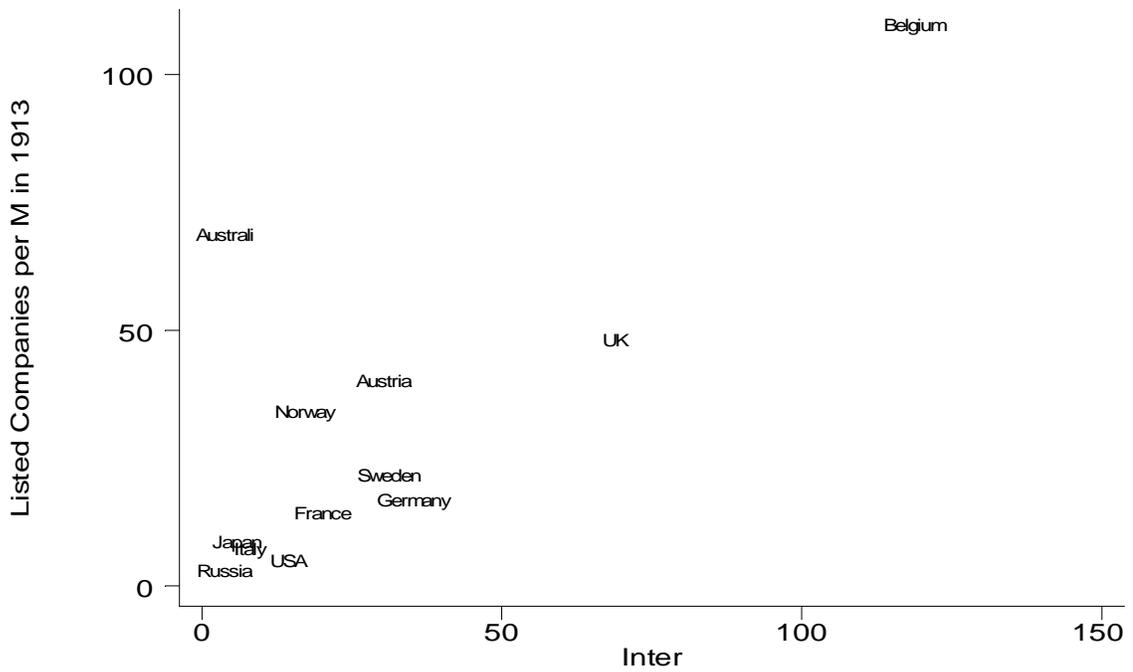


Figure 4: Listed cos per M in 1913 versus interaction

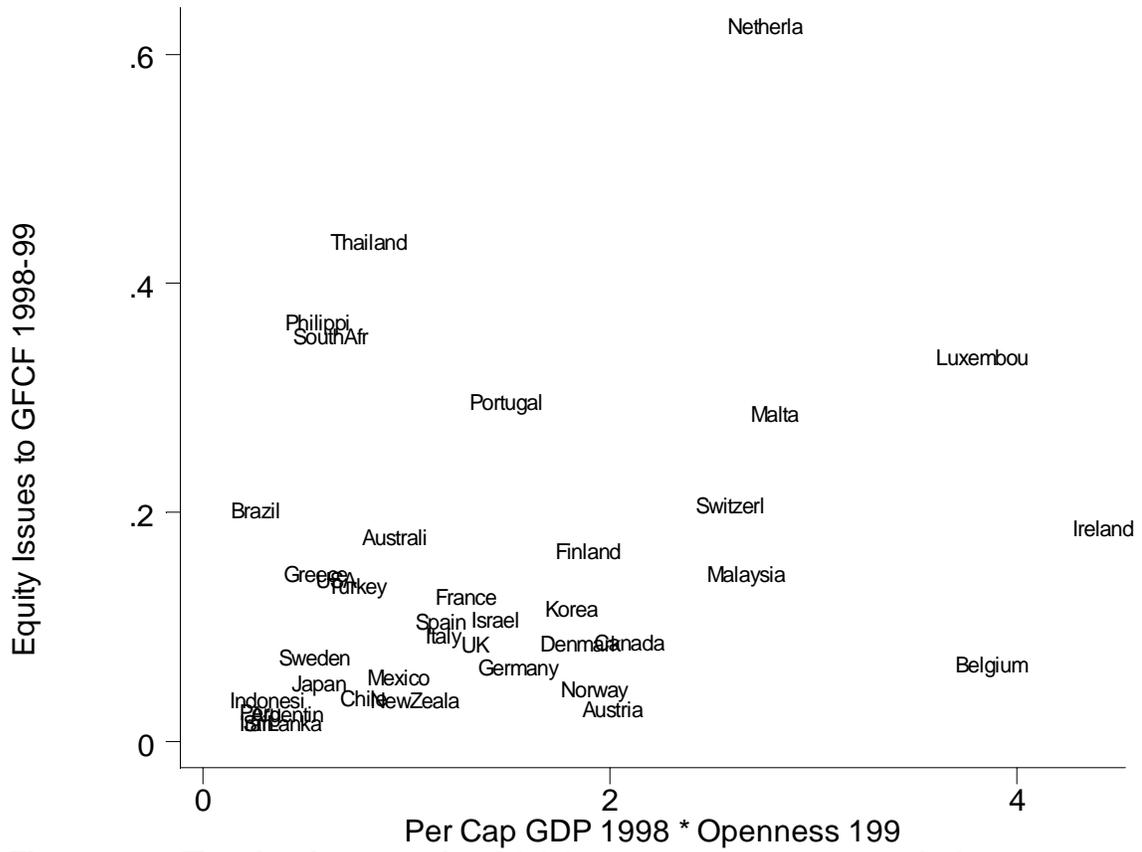


Figure 5: Equity Issues in 1998 versus per cap gdp\*openness

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<sup>1</sup> See Engelbourg and Bushkoff (1996) and Chandler (1990).

<sup>2</sup> Polanyi (1944) is an early, and powerful articulation of this argument. Since then it has been formalized by Diamond and Dybvig (1983) in the context of banking, and explored in a variety of ways by Mayer (1988), and Petersen and Rajan (1995). Allen and Gale (2000) is an excellent treatment of the relative benefits of markets and intermediaries.

<sup>3</sup> See Ang and Richardson (1994), Benston (1990), Kroszner and Rajan (1994), Puri (1994), and White (1986).

<sup>4</sup> This idea was initially proposed by C.Mayer "New Issues in Corporate Finance," *European Economic Review*, 32 (1988), pp1167-1189. Petersen and Rajan (1995) model it formally and find empirical evidence for it.

<sup>5</sup> Eichengreen (1996, p48)

<sup>6</sup> Bordo, Eichengreen and Irwin (1999, p28).

<sup>7</sup> McNeill, p346

<sup>8</sup> Kennedy (1999, p179-180)

<sup>9</sup> Kennedy (1999, p177)

<sup>10</sup> Aoki, Patrick and Sheard (1994), and Hoshi and Kashyap (1998).

<sup>11</sup> This paragraph is drawn from Hoshi and Kashyap (1998).

<sup>12</sup> Aoki, Patrick and Sheard (1994)

<sup>13</sup> That this was a cartel is further reinforced by Hoshi and Kashyap's observation that security houses that were not part of the 1931 agreement started competing fiercely for underwriting business and continued to underwrite unsecured bonds. Thus the market itself did not appear to develop a distaste for unsecured bonds.

<sup>14</sup> These figures are from Teranishi (1994)

<sup>15</sup> Okazi, 1991, p382, cited in Hoshi and Kashyap (1998).

<sup>16</sup> Bebchuk and Roe (1999) develop a theory of path dependence of governance to account for phenomena such as these.

<sup>17</sup> Kennedy (1999, p246)

<sup>18</sup> Kennedy (1999, p328)

<sup>19</sup> Kennedy (1999, p341)

<sup>20</sup> Kennedy (1996, p 263)

<sup>21</sup> We do not use total issues because it is very hard to obtain a consistent treatment of debt across countries.