When Systems Create Crises

An Institutional Approach to the Causes of Banking Crises in the United States and Japan

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Contents

LIST OF FIGURES AND TABLES **4**

LIST OF FIGURES 4

LIST OF TABLES 4

AKNOWLEDGEMENTS **5**

1. INTRODUCTION **6**

1.1 BACKGROUND 6

1.2 SCOPE OF THE THESIS 7

1.3 RESEARCH QUESTION 9

1.4 STRUCTURE 12

PART ONE: THEORETICAL AND METHODOLOGICAL FRAMEWORK **13**

2. THEORY AND REVIEW OF LITERATURE **13**

2.1 THE ROLE OF INSTITUTIONS 13

2.2 WHAT KINDS OF FINANCIAL CRISES 23

2.3 CAUSES OF BANKING CRISES 27

2.4 SUMMARY 29

3. METHOD OF INQUIRY **30**

3.1 GOAL OF THE RESEARCH 30

3.2 RESEARCH DESIGN 31

3.3 DESIGN FOR ANALYSIS AND CASE-SELECTION 35

3.4 METHODOLOGICAL CHALLENGES 39

PART TWO: EMPIRICAL ANALYSIS **41**

4. BANKING CRISES IN JAPAN AND THE UNITED STATES IN THE 1920S **41**

4.1 INTERNATIONAL INSTITUTIONAL CONTEXT IN THE 1920S 41

4.2 BANKING CRISIS IN JAPAN 1927 44

4.3 BANKING CRISIS IN THE UNITED STATES 1929-1933 53

5. BANKING CRISES IN JAPAN AND THE UNITED STATES IN THE 1980S AND 90S .. **63**

5.1 INTERNATIONAL INSTITUTIONAL CONTEXT 1970-1992 63

5.2 BANKING CRISIS IN THE UNITED STATES IN THE 1980S........ 67

5.3 BANKING CRISIS IN JAPAN 1992 75

PART THREE: SYNTHESIS AND CONCLUSION........ 87

6. INSTITUTIONAL SETTINGS LEADING TO BANKING CRISIS 87

6.1 INTERNATIONAL INSTITUTIONAL CONTEXT........ 87

6.2 NATIONAL INSTITUTIONAL CONTEXT........ 90

6.3 INSTITUTIONAL EXPLANATIONS OF BANKING CRISES........ 101

6.4 LIMITATIONS OF THE ANALYSIS........ 105

7. CONCLUDING REMARKS........ 107

LITERATURE 109

List of Figures and Tables

List of Figures

Figure 2-1 Inflation of bubbles 24

Figure 3-1 Causal model of banking crises 31

Figure 5-1 Federal Fund Rate 1954-1993 (Federal Reserve Bank of St. Louis 2010)..........70

Figure 5-2 Economic development the United States (World Bank 2009)..........73

Figure 5-3 Discount rate development Bank of Japan 1971-1995 (Bank of Japan 2010) 79

Figure 5-4 Economic development Japan (World Bank 2009) 83

List of Tables

Table 2-1 Institutional framework for analysis..........19

Table 2-2 National institutions concerning banking crises..........21

Table 3-1 Selected banking crises 38

Table 4-1 Japan's economic development 1914-1919 (Tamaki 1995:115)..........51

Table 6-1 International monetary cooperation 1920 vs. 1970-80s 88

Table 6-2 Commercial banking regulation..........91

Table 6-3 Overall assessment of central banks..........95

Table 6-4 Financial relations 97

Table 6-5 State role in economy 99

Table 6-6 Economic context where banking crises occur 101

Table 6-7 Institutional interaction..........103

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1. Introduction

1.1 Background

Financial turmoil and dramatic events have characterized the world economic outlook since 2007. Indications of problems in the financial markets became more and more evident from spring 2007 when banks all over the world reported on losses on so-called American subprime loans and culminated when one of the four large American investment banks, Lehmann Brothers, went into bankruptcy September 15 2008. This event was a starting point for a major crisis in international finance when the inter-bank market for borrowing went completely dry. The result was governmental intervention in the financial markets. Governments provided guarantees and capital to a financial sector under severe strain. The crisis has huge implications on the real economy as well. Unemployment numbers have increased all over the world, and a number of big economies experience or have experienced recession. Consequences have been most severe on Iceland, where the country in effect went bankrupt when the large Iceland-based financial institutions of Glitnir and Kaupthing were unable to meet their obligations. In spring 2010 American authorities have begun the task of reregulating the financial and banking market, in order to avoid such a crisis in the future. What regulations lead to banking crises? Can the answer be found in history?

Financial crises like the 2007 subprime crisis are not unprecedented. They have occurred with irregularity over the last 800 years, as Reinhart and Rogoff (2009) shows in their book *This Time is Different, Eight Centuries of Financial Folly*. Charles Kindleberger and Robert Aliber (2005) identifies thirty-five financial crises from the Thirty Years' War and coins speculation in 1618 until the speculation and construction boom that led to the Asian crisis in 1997. Although the object of speculation may vary from crisis to crisis, the authors emphasize that financial crises tend to follow the same structure. Crises occur because of speculative booms, which are fueled by credit expansion. When expectations in the market change from euphoria to pessimism, booms turns into busts and financial crises occur.

Financial crises are important because they tend to have great implications for the whole economic system. John Kenneth Galbraith (1975:186) shows that *the Great Crash* at the New York Stock Exchange in 1929 initiated a financial crisis and later an economic downturn where the American Gross National Product (GNP) was reduced by a third in four

years and where the country recorded an unemployment rate of 25% in 1933. Reinhart and Rogoff (2009:142) identify that within the first three years after a modern banking crisis, on average the government debt increases by 86%. This debt is made to handle both the direct costs as bailout programs, and indirect costs as social costs due to increased social spending. While being a potential source of economic crises, banking and finance have played and play a vital role for the development of the economy. As Niall Ferguson (2009:4) begins his book *The Ascent of Money*: "The ascent of money has been essential to the ascent of man." Erik Reinert (2009:18) argues that the finance sector provides the bridge between inventions and the finished product, assigning finance a key role in the functioning of the economy. Our focus should be to develop financial markets where crises rarely occur.

1.2 Scope of the Thesis

The scope of this thesis is to analyze how institutions affect the occurrence of financial crises, more specifically banking crises. Through an analysis of different historical crises in diverging institutional structures and contexts, the goal is to be able to draw some general inferences on institutional factors creating these crises. Institutions are found to be the framework that shapes our behavior and the institutional factors analyzed in this thesis are found both in finance and banking as well as the overall economic structure, at both national and international level.

In this introductory chapter, I will specify and narrow the concepts of financial crises and political institutions, before presenting the research question and generating my hypotheses on the role of institutions. In section 1.4 I will present the structure of the thesis.

1.2.1 From financial crisis to banking crisis

The term financial crisis is a broad term including economic crises that evolves around finance, money, banking and debt. To get to grips with the concept, one can divide the economy in two; a production side where goods and services are produced (the real economy) and a financial side containing the money and finance needed to initiate trade and production of goods and services in the real economy (Reinert 2009:18). Financial crises are economic crises originating from the financial side of the economy. A precise definition seems difficult. As Kindleberger (1989:6) states financial crises are hard to define, but may bear the characteristics of a pretty woman: "hard to define but recognizable when encountered".

Reinhart and Rogoff (2009) present three main categories of financial crises: debt crisis, inflation and monetary crisis, and banking crisis. Their main point is that financial crises are no new phenomenon and that "all" countries have experienced them. Empirical evidence show that countries seem able to develop away from debt, inflation and monetary crises, however banking crises seem somewhat more difficult to mature from. Banking crises are defined through failure of banks to meet their payment commitments and their bankruptcy or rescue from a lender of last resort. These crises are identifiable through two types of events: first, bank runs that lead to closure, merging between several banks, public sector or private institutional takeover. Second, in cases of no runs, closure, merging takeover or massive government assistance to important financial institutions that mark the beginning of a period with similar events and similar outcomes for other financial institutions (Reinhart and Rogoff 2009:10). Even though we call it banking crises, in our economic system all entities carrying a high leveraged portfolio financed by short-term debt is in danger of runs. One of the key characteristics of the 2007 subprime crises has been the large-scale government assistance package to the banking sector. This makes the 2007-crisis fit nicely into the definition of banking crises.

In order to narrow the scope and be more able to specify my analysis, I choose to concentrate on banking crises in this thesis, and especially on the historic role of institutions in periods leading up to crises.

1.2.2 Political institutions

My analytical focus is political institutions and the political economic context in which banking crises occur. My understanding of institutions builds on Douglass North's (1990:3) definition: "humanly devised constraints that shape human interaction." Institutions are the framework and rules that form and constrain our behavior. There are a number of such institutions, examples being *political governance, the constitution, election rules, the economic system,* and *economic markets.* The institutions in focus in this thesis are found in bank and finance regulation and in the broader economic system, both at national and international level. In all these areas there are a number of factors and frameworks that constrain and shape our behavior. This thesis will therefore highlight these institutional structures to analyze how they shape the political context and what role they play in the build-up to banking crises.

1.2.3 Countries of investigation

Financial crises and banking crises are no new phenomena. The topic is well researched and investigated. However, I find that there are a limited number of focused and structured cross-country, cross-time analyses of causal mechanisms and how different institutional factors interact in the lead-up to crises. For that reason my analysis will be based on a comparative case study between two countries at two different points in time. The countries of investigation will be the United States and Japan in the time-period 1920-1995. These countries are chosen because of their distinct political economic institutions and their central role in the world economy. This gives me the opportunity to compare institutional contexts across countries, between two quite distinct institutional models and across time. Both of these countries experienced several banking crises in the period of interest.

1.3 Research Question

Financial crises opens up a number of interesting directions of research: What are the economic and political consequences of crises, how does the financial sector interact with the real economy and when crises occur, how should the government respond in order for the economic balance to be restored as fast as possible? In this thesis, the emphasis is on how crises occur. As financial crisis is no new phenomenon, a number of explanations have already been given. Some scholars emphasize the overarching structure of the financial economy and financial markets, like Karl Polanyi (2001) and Hyman Minsky (2008). They both argue that the self-regulating market is in nature unstable and the result is occurrence of crises. I understand their arguments as arguments for regulation and severe restrictions on the market mechanisms. Scholars like Paul Krugman (2008) and Friedman and Schwartz (1963) emphasize the central role of key players like central banks and other major entities. Finally there are those who give much weight to human irrationality and psychological factors creating crises. In Galbraith's (1975:187) analysis of the stock market crash of 1929, he highlights the role of psychology by arguing that confidence and anticipated profits are a much more fundamental reason for the stock market bubble than lax monetary policy and availability of credit. Akerlof and Shiller (2009:1) open their book *Animal Spirits* with the statement that "[w]e will never really understand important economic events unless we confront the fact that their causes are largely mental in nature." In this analysis the key concern is on how institutions and the institutional framework play a causal role in the occurrence of financial crises.

However, I would like to emphasize that highlighting one set of factors (institutions at different levels and dimensions) does not mean rejecting other explanatory factors. What is essential to my approach is that the institutional level is one key determinant, and that it interacts with other factors at different levels. My research question is: *How can political institutions explain the occurrence of banking crises, and how does the institutional structure at different levels interact with other explanatory factors in creating these crises?*

From this I have derived three hypotheses:

1) *Banking crises are not caused by individual factors, but must be explained by different combinations of factors in the political and economic context, both domestic and international.* The research of the field emphasizes different aspects and factors that cause financial crises: domestic macroeconomic conditions (Gavin and Hausmann 1996), international macroeconomic and financial conditions (Eichengreen and Rose 1997), government intervention in the market (Freidman and Schwartz 1963) and the internal dynamic of the financial market (Minsky 2008). Without some factors initiating speculation and revealing vulnerability in banking or finance, the institutional structure does not by itself create banking crisis. Crises and periods of financial instability should for that reason be studied as conjunctures. It is the different configurations that cause the crises, not the individual variables. It might also be that different institutional structures create banking crises and that there are more than one causal path. Røed Larsen and Mjølhus' (2009) brief introduction to the causes of the subprime crisis in 2007, indicate that this context-based approach may be fruitful. They identify ten different factors at different levels that were closely interlinked and together caused the crisis in 2007.

2) *Liberal market economies are more prone to banking crises than regulated and coordinated market economies.* Minsky (1982:37) and Kindleberger and Aliber (2005:53) argue that there are national differences in how prone a capitalist system is to financial crisis. The argument is that some economies might be more prone to speculative finance, and institutional arrangements and banks are more induced to participate in such finance (Kindleberger and Aliber 2005:53-54). As Minsky (2008) argues that unrestrained financial markets by their own dynamic create financial crisis, liberal market economies should be more prone to crises than more regulated and coordinated economies. This could be an interesting extension of the varieties of capitalism-literature. Hall and Soskice (2001) present a framework for analyzing different market economies by how firms coordinate their behavior; either through

market mechanisms or coordination or cooperation. They find two main forms of market economies, liberal and coordinated, and show that the two forms have different advantages, however both show good economic performance. As the liberal market economies are built upon market relations between different actors, economic actors are shortsighted and the emphasis on the stock exchange is essential in attaining finance for projects (Hall and Soskice 2001:27.) Does this make them more prone to financial crises? Does liberalization of institutions make economies more conducive to banking crises? The liberal market economies are more based on market mechanisms for financing and the stock market plays an important role for businesses. Katzenstein (1985) presents a framework for analysis the differences in the role of government in capitalist economies. He divides between liberal, corporative and statist economies. These systems may create market- and state failures. Market failure refers to crises caused by the free market dynamic, while state failure refers to crises due to government decisions. In the liberal economy the government takes a *laissez-faire* approach, only intervening in times of trouble. In statist economies the government takes an interventionist approach to economic development. My hypothesis states that liberal economies, where markets are unrestricted and the state applies a *laissez-faire* approach to development is more conducive to crisis than regulated and statist systems.

3) *Our failure to understand history and our belief that this-time-is-different makes us unable to learn from previous crises on how the institutional structure should be built to avoid financial crises; we keep on repeating the same mistakes across time and across nations.* This hypothesis states that lessons from history could help us avoid future financial crises. Reinhart and Rogoff (2009:15) argue that the belief we have developed from banking crises, that technology and banking has become too sophisticated to fall into financial crises, is one of the main reasons why banking crises keep recurring. By being able to learn from history and incorporate lessons from previous crises in developing the institutional framework, we might be able to avoid financial crises in the future. Thus, the first step to mature from these crises is to admit that we have a systemic problem of financial instability. One consequence of this hypothesis is that institutions have an important role in containing lessons from earlier crises. By undermining the historical role of institutions and their historical, one might fail to understand why institutions are designed the way they are and how they developed.

1.4 Structure

This thesis is built around three main parts: A theoretical and methodological section in chapter two and three; the empirical analysis of banking crises in Japan and the United States in chapter four and five; and, the synthesis and concluding section where inferences from my analysis are drawn, in chapter six and seven.

Chapter two develops the theoretical framework for the institutional analysis and elaborates the theoretical aspects of banking crises as well as presenting previous research on the topic. Chapter three elaborates the research design and specifies the methodology applied in the analysis of the banking crises. Then chapter four and five provides the analysis of the four banking crises. These chapters have identical structure, the first analyzing the period leading up to banking crises in the 1920s, the latter concentrating on the 1980s. In chapter six I compare all crises in order to draw inferences on what institutional structures have been most important and how institutions have created economies conducive to banking crises. These inferences focus on the causal mechanisms explaining the four crises and the possibility to generalize to other crises is limited. Concluding, chapter seven sums up and discusses what these findings imply for contemporary institutional development.

Part One: Theoretical and Methodological Framework

2. Theory and Review of Literature

As financial crises impact strongly on the lives of people all around the affected areas, the scholarly interest on the subject has been substantial. Especially succeeding large crises as the Great Depression in the United States in the 1930s, the Latin American and East Asian crises in the 1980s and 90s and now the United States Sub-Prime Crisis, the amount of books and article on the causes and the implications of financial turbulence is massive. The vast amount of literature makes the possibility for "standing on the shoulders of giants" more pronounced. I will develop a theoretical framework on the institutional influence on the financial system. Widely known economists as John Maynard Keynes, Hyman Minsky and Milton Friedman all have specific views on how financial crises and financial instability occur and on the role of institutions. To these a growing number of contributions from political scientists and in particular those writing in the political economy tradition should be added, such as Susan Strange and Eric Helleiner to mention a couple.

This chapter reviews some key literature in the field and lays the theoretical foundation for my thesis. My starting point is the role of political institutions in the economy, more specifically in finance and banking. What are they, how do they affect the financial sector, and what role are they assigned by theory? From this I develop a theoretical framework for analyzing the institutional role in banking crises. Section 2.2 elaborates the theoretical understanding of financial crises and narrows the focus to banking crises. The chapter ends with a brief review of earlier analyses of banking crises.

2.1 The Role of Institutions

2.1.1 Institutions in political economy

Political institutions create the rules of the game in society. Institutions are defined as constraints made by humans in order to shape how we interact with each other (North 1990:3). Institutions shape, encourage and restrict our behavior. They can be formal as political and economic constructs, and informal as codes of conduct, norms, and

conventions. In that perspective, the economy is in itself an institution and not something given by nature. Minsky (2008:7) argue that: "an economy is a social organization created either through legislation or by an evolutionary process of invention and innovation." Both markets and the state are institutions created in order to constrain our behavior and to provide allocation of resources. Allocation mechanisms can be divided into centralized and decentralized mechanisms. Roughly speaking, markets are decentralized and states are centralized. There are however no such thing as **the state** or **the market** (Przeworski 2003:11). Both the state and the market can be organized in different ways, and are not homogenous. Examples can be the difference between the historically liberal states in the US and the UK, the strong state in Japan and France, and the corporatist states in the small European countries (Katzenstein 1985:20). Contemporary examples of different market structures can be found within the European Union. Commodity markets are built on free trade and strong competition laws to protect the consumers, while the agricultural market face heavy regulation and protection of farmers.

How the institutional economic structure is set up has large implications for the functioning of the economy. As we shall see in the next section, what characterizes effective institutions differ on the theoretical foundations. Institutions are built and developed in response to historical experiences and theoretical developments. Institutional changes in the aftermath of substantial events or developments; such as the establishment of the UN to preserve peace in the aftermath of World War Ⅱ (WWⅡ) or the establishment of GATT to hinder new waves of protectionism as experienced in the 1930s, illustrates this. Institutions may keep us from repeating mistakes. In this thesis, the learning effect or lack of learning effect is important in understanding how financial crises keep occurring. This suggests that I need to go beyond rational choice theories in order to grasp the dynamics of the financial market.

Concerning institutions, two main perspectives are important: What outcome do they produce and how did they evolve. Even though the main perspective in this analysis is what role institutions play in creating financial crises, the background on institutional evolution is important. Understanding this evolution may provide fruitful insights in explaining different institutional frameworks for banking and finance. Path dependence is a key concept when analyzing institutional development. Once institutional structures are created, "particular institutional arrangements are incredibly resilient and resistant even in the face of huge historic breaks" (Thelen 2003:209). This does not mean that institutions do not change, however once a path is chosen, institutions evolve from that point of departure. This way, the

concept of path dependence may explain sustained national differences and shows that history matters for understanding policy outcomes (Thelen 2003:212).

There is a broad literature in the field of institutions and economic performance; for example in studies of the effect of election rules and constitutions on economic performance (Persson and Tabellini 2004; Rogowski 1987), and studies on the economic effects of democratic regimes (see for example Knutsen 2009, Przeworski et al. 2000). On developed market economies, Hall and Soskice (2001) have created a framework for analysis of institutions on five different dimensions of coordination problems for businesses: financial market relations, internal corporate governance, industrial relations, training and education of employees and inter-firm relations. Economies can diverge in how they coordinate on these dimensions depending on the institutional framework of the economy. In the liberal market economy coordination is done through market mechanisms and in coordinated market economies coordination is normally done through interaction between the different economic actors (Hall and Soskice 2001:8). The authors show that pure forms of liberal or coordinated economies perform better than mixed economic approaches; however they do not find substantial differences between the pure types.

The question in this thesis is to what extent the institutional differences matter for occurrences of financial crises.

2.1.2 Theoretical perspectives on the role of institutions

The emphasis on institutions depends to a large extent on how the economy is perceived to function and what theoretical perspective reigns. As Minsky (2008:110) points out: "...the game of policy making is rigged; the theory used determines the questions that are asked and the options that are presented."

Here I will present two prominent but contrasting views on the functioning of the financial economy: the efficient market theory and financial instability theory. Efficient market theory holds that markets are efficient and that instabilities occurring in the market develop from exogenous shocks and intervention from forces outside the market. The key role of institutions in this context is to provide efficient resource allocation through the free market. Financial instability theory proclaims that capital and financial markets have an internal dynamic that without institutions intervening and regulation of markets, will create booms, bubbles and busts.

Efficient market theory and the role of institutions

Introductory economic theory explains that the market will provide us with the most effective resource allocation if it is allowed to operate freely. In an efficient commodity market, price and quantity is decided by the interaction between supply and demand. Equilibrium is found where the cost of producing one more unit equals the consumers' willingness to pay for the next unit. At equilibrium, price and quantity is stable, and neither producers nor consumers would change behavior.

If the same efficient market-dynamic applies to financial and capital markets, a financial competitive market would provide us with the most efficient solution, with a stable equilibrium where supply meets demand and resources are efficiently allocated. This notion has been expressed by some of the dominant economists in the post-war era. The first American Nobel laureate in economics, Paul Samuelson (1958:39) stated that: "What is true of the markets for consumers' goods is also true of markets for factors of production as labor, land, and capital inputs." What he says is that there is no real difference between consumer goods and production factors like capital, and that the market mechanism can explain resource allocation in both cases. This notion also means that in markets for capital and capital assets, efficient market theory applies and a stable equilibrium arises where demand equals supply. Eugene Fama (1970:383) argues that with only few exceptions, the efficient market model is a good description of the functioning in capital markets. This means that prices provide a good description for the value of assets and that prices truly reflect all necessary information. That would also mean that the market itself does not create booms and busts, since the unregulated market is self-stabilizing.

Following these arguments the institutional arrangement should be built and developed in order to protect the market mechanisms and let them operate freely. Deregulating markets and concentrating on providing level playing fields through for example liberalization of financial markets would increase the efficiency. This has also been presented as one of the "ten commandments" of the Washington Consensus, a key development policy applied in Latin America and East Asia in the 1980s and 90s (Williamson 2004). The argument goes that financial liberalization increases economic efficiency by improved allocation of investments. Without intervention from outside-market-forces, efficiency increases. An empirical analysis by Bekaert et al. (2005) underlines this theoretical perspective, showing that equity market liberalization increases economic growth.

Then how can financial instabilities occur? As prices include all necessary information and truly reflect the value of goods, the only way there can be price movements in efficient markets are through external shocks (Cooper 2008:9). These external shocks can create booms and busts in the financial markets. Minsky (2008:116) points out that the neoclassical synthesis as described by Milton Friedman and others, means that only outside forces as bad policies from political institutions and bad judgment by individuals can create financial instabilities.

Financial instability theory and the role of institutions

While efficient market theory promotes free market liberalism, other theories have a more skeptical view of the approach: "The beauty and the simplicity of such a theory are so great that it is easy to forget that it follows nor from the actual facts, but from an incomplete hypothesis introduced for the sake of simplicity" (Keynes 1926:31). This quote from Keynes critique of the efficient market theory and *laissez-faire* economic policies refers to the world experience in the 1920s. The *laissez-faire* politics reflects the institutional approach according to the efficient market theory. To assume individual enlightened rationality is highly problematic in itself, and Keynes (1926:41) argue that the causes of economic turbulence in many instances are fruits of risk, uncertainty, and ignorance.

Minsky takes the complete opposite view of efficient market theory: "The major flaw of our type of economy is that it is unstable. [...] Instability is due to the internal processes of our type of economy" (Minsky 2008:11). With that perspective, one should protect society from the unrestrained market and build stabilizing mechanisms within the system. Market institutions should not only protect the efficient functioning of the market, but also provide stabilization. Minsky (2008:194) argues that the differences between the two views are found in how finance and financial relations are perceived. The two fundamental propositions of his financial instability hypothesis are: One, market mechanisms cannot lead to a stable and sustained full-employment equilibrium. Two, business cycles occur due to financial attributes that are essential for the capitalist economy. This perspective assigns substantially different roles for institutions. The focus shifts from protecting the market mechanisms and letting them operate without intervention, to protecting society from market mechanisms. There are two main objections to the efficient market theory influencing the role of institutions: financial markets and assets are inherently different from commodity

assets and markets; and, the internal dynamic of finance will create bubbles if kept unrestrained (Minsky 2008:117, 199).

In financial asset markets, as stocks, credit, loans, Minsky (2008:117) states that speculation and incomplete knowledge of the future are pronounced. That assets can be used for speculation makes them different from other commodities as other "laws" apply to them. Karl Polanyi (2001:75-77) also emphasizes the particularity of money, labor and land and labels them *fictitious commodities*. Fictitious commodities are commodities not solely produced for sale. One can of course argue that all commodities can be used for speculation and that this indeed happens, however, when it comes to land, money and stocks, speculation may be a bigger motivation than in most other markets. Speculation is characterized by the expectation to make capital gains on the asset. The focus on price expectations for that reason becomes highly important in the financial market. The decision to invest in the stock market will not solely depend on available information, in addition expectations on the future is important. Thus uncertainty becomes an important factor.

Following these financial instability arguments, credit creation is also procyclical. If stocks are used as collateral, declining stock values result in less collateral. Then you are able to borrow less than if the prices of stocks rise. This makes the asset market "prone to boom-bust cycles with no equilibrium state" (Cooper 2008:101). Situations might occur when the initial shock to the economy could not be balanced, however, the shock would be enhanced and enlarged by the internal functioning in the finance market. The procyclical dynamic of credit supply creates bubbles and busts as expectations change. From this theoretical viewpoint it is vital to implement institutions that contain the credit market in order to avoid these boom period. Minsky's (2008:199) argument of changing willingness to undertake risk understates this:

> Whenever full employment is achieved and sustained, businessmen and bankers, heartened by success, tend to accept larger doses of debt financing. During periods of tranquil expansion, profit-seeking institutions invent and reinvent "new" forms of money, substitutes for money in portfolios, and financing techniques for various types of activity: financial innovation is a characteristic of our economy in good times.

Financial instability theory assign institutions the role of controlling the investment balance in order to avoid unsustainable financial structure that leads to fragility in the financial market. Restrictions on bank behavior would curb the innovation within the sector and reduce the procyclical nature of finance. There may be reasons to assume that beliefs that the

"financial markets cannot fail" and the fact that there is a long time since last financial instability may affect the behavior of both bankers and investors, making them increase their willingness to risk. The lack of institutional learning and ability to recognize danger signals in the financial market is presented as a key problem.

2.1.3 Institutional framework for analyzing financial crises

My thesis will focus on institutional settings influencing finance and banking relations. In order to structure my analysis, I use a multilevel/multiscope institutional framework. This approach makes me able to identify how institutional structures may influence the occurrence of banking crises.

Table 2-1 Institutional framework for analysis

Scope/level	**National**	**International**
Banking and finance	Bank regulation, central banking	Monetary and banking
System	Financial relations, role of state	Economic and political structure

Concerning financial markets, institutions form the interaction between supply and demand of credit and financial assets. Governments, international organizations and regimes set up institutions with influence from interest groups. Important institutions within the financial context are bank regulation, credit policy, and supervision and monitoring. However, institutions designed to shape the real economy might have implications for the financial sector and the international institutional structure might be crucial in shaping banking organizations. I divide my analysis between different institutional levels and different institutional scope. Institutional level refers to the domain of institutions. Do they operate at the international level, with supra-national institutional structures, or are national institutions the key level for understanding the market for banking and finance. Are there other important institutional levels? Referring to institutional scope, the analysis is concerned with what function the institution is set to perform. Institutions in banking and finance are for obvious reasons important for the functioning of banking and finance. In addition, this analysis seeks to see if institutions directed towards other parts of the economy also affect the economies proneness to banking crises?

Institutional level

Institutions are found on many levels. Concerning banking and finance, initially the national and international levels seem most important. While the nation-states shape the national institutional arrangements, international organizations and regimes are able to influence national economic behavior to a large extent, and also provide the framework for national organizations to operate within. Peter Gourevitch (1978:884) emphasizes the importance of international sources for domestic politics. Events like the oil-embargo following the Arab-Israeli war of 1973 and the effect of the Great Depression in bringing Hitler to power in Germany show how important international events can be on domestic politics. This perspective should be important in explaining the occurrence of financial crises as well and are for that reason included in this analytical framework. Developments of international organizations and the globalizing structure of economic relations may have changed the balance of the international economic system and declined the role of the state.

Susan Strange (1996:4) argues that the role of the state at the national level has declined since the 1970s. With technological and financial innovation and increasing demand for raising capital for investment projects, there has been a push towards deregulation and liberalization of financial markets. The result has been a change in the balance between markets and state, in favor of the markets (Strange 1996:7). Eric Helleiner (1994:8,13,15) points to several reasons why this liberalization was a wanted policy by the states: The self-interest of the US to exploit business opportunities by liberalizing, the political costs of preserving the restrictive capital control system when the UK and the US liberalized, and the increased dissatisfaction with the embedded liberalism of the post-war era. With growing influence of multinational companies and increasing mobility of technology and capital (Gilpin 1987:260), has the international level become prominent in order to avoid banking crises?

Strange (1986:170) rejects this notion by stating that international organizations and the international level is only the result of what the big veto players decide, the US being the most important. The decline of the nation-state has therefore left a hole of non-authority (Strange 1996:14). In order to rebalance finance and banking and restore stability, the nation state and in particular the US must initiate it (Strange 1986:171). However, even though the international level is impossible to understand without the will of nation states, the international currents and developments create pressure on other states that should not be undermined (Helleiner 1994:8). For that reason the international level is important.

National institutions

Table 2-2 identifies the key national institutions analyzed in this thesis. Concerning banking regulation, the aspects presented in 2.1.2 gives the theoretical foundation for this factor. On the one side, market efficiency theory argues that financial markets are like other commodity markets where the free-market solution is most efficacious. Regulation of the banking sector should for that reason be loose. However, Minsky's (2008) approach to regulation is quite opposite, as he argues that the unrestrained market will in itself produce instabilities. The distinction between the two opposite views is given great emphasis in this thesis.

Table 2-2 National institutions concerning banking crises

	Market institutions	**Government institutions**
Banking	Commercial banking regulation	Central bank
Economic System	Financial relations	State role in economy

How central banks should be regulated are another source of dispute between market efficiency and financial instability-theorists. Milton Friedman (1968:13) argued that the role of central banks should be to keep the economy stable, through a focus on price stability. The economic system functions best when all actors within the economy "can proceed with full confidence that the average level of prices will behave in a known way in the future." The central bank should not intervene in the economy to prevent major instabilities; the main function is to make the market function and to lay the foundation for the market mechanisms to function. Friedman (1968:12) points to the fact that substantial and misguided intervention through monetary policy can be a major source of financial instability. In their historical review of the US monetary history, Friedman and Schwartz take the view that the Great Contraction could have been avoided if the Federal Reserve had not taken wrong actions (Friedman and Schwartz 1963:300). The decline in money stock is perceived as one of the key drivers behind the crash. Minsky (2008:349) argues that central banks should take a more interventionist approach to monetary policy. Central banks should not only make ad hoc rescues of the economy, but also prevent economic crises and contain financial instabilities. These differences are found in the different understandings Friedman and Minsky have on the functioning of the financial market.

Financial relations explore how business and banks interact and cooperate. Banks' role in the economy may be an important factor in explaining the occurrence of banking crises, as this factor tell us something about the risk banks are exposed to and how vulnerable they are to fluctuations in the real economy. Differences within the scope of capitalist economies are substantial on this aspect. Hall and Soskice (2001:22,27) find that in liberal market economies, firms are dependent on the stock market and market based relations to their financiers as banks and other investors. In coordinated market economies, financing is achieved through close ties between business and banks, financiers often being able to attain information withheld from the market. As businesses in liberal economies are more exposed to the stock market and have a distanced relationship with banks, they may be more conducive to economic problems due to short-term perspectives, which might influence the banks and their conduciveness to instability and bank runs. In relation to the state role in the economy, Katzenstein (1985:20) identifies three distinctive forms of market economies: liberalism in the US and the UK, statism in Japan and France and corporatism in small European states. While the liberal states respond to changes in the economy by ad hoc protection, the statist economies respond by strategic intervention to transform the economy to the new realities. The view of the Japanese developmental state has been given substantial emphasis in the postwar development literature. Chalmers Johnson's (1995) term the *capitalist developmental state* to represent the Japanese state clearly distinguishes it from liberal states like the American. Can these differences be found in relation with financial strains as well, and does this make the economies more or less prone to financial crises?

International institutions

Two different dimensions will be analyzed concerning international institutions. First international monetary and banking cooperation should have a substantial impact on countries economic conditions and how they organize their monetary policy. Barry Eichengreen (1998) analyzes the differences in the international monetary cooperation and explains how this affected domestic institutions and economies. Cooperation has changed throughout the last century and has been characterized by different approaches to divergent goals. International monetary structures provide different combinations of three contrasting goals of monetary policy: fixed exchange rate, autonomous interest rate policy and free capital movement. With some simplifications it is only possible to achieve two out of three (see for example Mundell 1968). Combining fixed exchange rate and free capital movements, interest rate policy cannot be autonomous. Changes in the domestic interest rate

will cause either a rush towards or a rush out of the currency, making it impossible to hold exchange rates fixed. Autonomous interest rate policy can be achieved when capital movements are restricted or when exchange rates are floating. In the last 100 years, different considerations have been at the forefront of the monetary authorities' agenda. In the 20th century four distinct international monetary regimes have been dominant: the gold standard, governed by the UK, the interwar gold standard characterized by instability, the postwar Bretton Woods regime up to the early 1970s and free floating and regional cooperative attempts from 1971 and onwards (Eichengreen 1998). How have these different regimes influenced the occurrence of financial crises?

Second, the political and economic structure of the worlds leading nation, the hegemon, has been deemed important. Kindleberger's (1987) analysis on the Great Depression argues that the British inability in providing international leadership and the United States' unwillingness to perform the role was an important reason for the sustained crisis. Hegemonic Stability Theory has been established from this notion. Robert Keohane (1984) challenges and qualifies this general view, and argues that mutual interests create cooperation, although not being sufficient for well-functioning cooperation. Hegemonic leadership can explain some cooperation, the American postwar leadership being a key example; however it is not able to explain the own dynamic of international organizations or the extent of cooperation (Keohane 1984:215).

2.2 What Kinds of Financial Crises

2.2.1 A model of financial crises

Figure 2-1 is my illustration of Kindleberger and Aliber's (2005) anatomy of financial bubbles and crises, how they inflate and how they burst. Crises occur as some factors create changes in expectations (in boom periods), which initiate an investment surge in the market. Shocks creating changed expectations can for example be a technological breakthrough. These technological breakthroughs are found to have occurred together with euphoria and financial collapse at several points in time (Perez 2002). The investment boom is fueled by expansion of credit provided by financial institutions, and speculation is likely to occur. The period of speculation can be divided in two stages: first when investors respond to the changing expectations, perhaps due to new technology. In the second phase, it is no longer the initial displacement that creates investments, it is the anticipation of short-term capital gains from buying the commodity now and selling it again shortly after without putting it to

use. Kindleberger and Aliber (2005:39) identify these two speculative phases in several booms: During the British railway boom in the 1830s, during the construction boom in Vienna in the 1870s and during the loan-boom in Latin America in the 1970s. At first loans were given due to realistic assessments of the countries and their growth potential, later banks saw the opportunity for capital gains by extending credit to these countries.

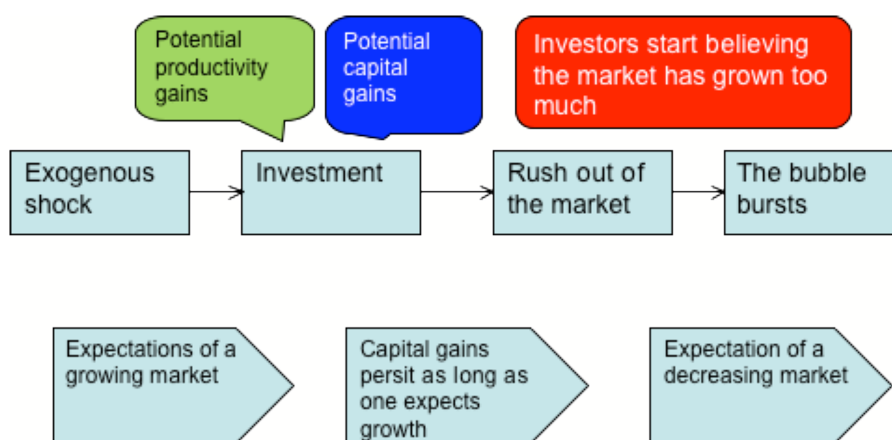

Figure 2-1 Inflation of bubbles

A bubble is defined by the unsustainable build-up of prices (Kindleberger and Aliber 2005:1). Speculative bubbles are key to the development of financial crises. During a bubble build-up there is a rush to get "on board the train" and speculation proliferates unsustainably. This build-up is made possible by the procyclical dynamic of credit supply. George Cooper explains how banks provide more loans to investors as investors assets (often stocks) increase in value. The asset price-rise improves the investors' collateral and they are allowed to extend their credit to buy more assets (Cooper 2008:100). The money supply would then increase in good times and contract when prospects are bad; hence the supply of money strengthens the cycles and trends in the economy. As prices rise some investors begin to worry that the price increase has been too large and these investors' eagerness to invest declines. This may alter expectations of further price increases and investors become more reluctant. As more and more investors anticipate a price fall the race to get out of the commodity begins. This creates financial instability and may lead to financial crisis. These crises are often initiated by the failure of a bank or a firm, which makes the public uncertain about the future and the sustainability of the economic development. Banks restrict their lending and the downward spiral accelerates (Kindleberger and Aliber 2005:28). The same

dynamic that creates booms goes the other way around and create busts by drying up capital markets.

This model of financial crises build-up follows Hyman Minsky's model (Kindleberger and Aliber 2005:21). It has been met by criticism on several points: first, that each crisis is unique and a general model is not relevant; second, this model is no longer relevant due to changes in business and economic environments; and third, asset price bubbles do not occur because the price contains all the relevant information of an asset (Kindleberger and Aliber 2005:29).

The rejection of notions and lessons from earlier crises derives from the belief that we have become more sophisticated, our economy has reached a new level, our financial system has matured from instability and crises, and today's economic and technologic context are different from earlier contexts. When the context change we believe that old lessons no longer apply. One of the key notions of Reinhart and Rogoff's (2009) quantitative analysis of financial crises is that history repeats itself. The assumption that today's society has changed so that lessons from previous crises do not apply, seldom holds according to the authors. The this-time-is-different syndrome explains why financial crises keep on recurring:

> The essence of the this-time-is-different syndrome is simple. It is rooted in the firmly held belief that financial crises are things that happen to other people in other countries at other times; crises do not happen to us, here and now. We are doing things better; we are smarter, we have learned from past mistakes. The old rules of valuation no longer apply. The current boom, unlike the many booms that preceded catastrophic collapses in the past (even in our country), is built on sound fundamentals, structural reforms, technological innovation, and good policy.
>
> (Reinhart and Rogoff 2009:15)

Why institutions have not incorporated important historical notions on how to sustain financial stability or how these lessons are forgotten, make the topic of sustained learning effects important. Reinhart and Rogoff (2009:17-20) argue that the this-time-is-different syndrome has been present during several previous booms, before the Great Crash in 1929, before the Latin American debt crisis in 1980s, before the crises in Asia in 1990s and in the run-up to the United States sub-prime crisis in 2007. If one believes that things are different now and that there are new structures and forces guiding the financial markets and its actors, we might not be able to learn from past crises and experiences. According to the authors, the same logic and the same dynamic repeat themselves during financial crises, no matter where

and no matter when. When the model of the anatomy of financial crises is criticized for no longer being relevant, the critics must argue why this time stands out against all earlier time-periods and how this makes the economy less prone to bubbles, speculation and financial instability. Analyzing the institutional structures over time and across countries, may identify to what extent the this-time-is-different syndrome have influenced the political institutional environment in question.

2.2.2 Different types of financial crises

There are several types of financial crises. Reinhart and Rogoff (2009) especially emphasize debt defaults (either external or domestic), inflation, currency, and banking crises. Turning first to debt defaults, this is a phenomenon first and foremost occurring in emerging economies, Nigeria being one of the worst with five since the country's independence in 1960 (Reinhart and Rogoff 2009:95). However, among today's developed economies, we find a number of previous debt defaulters, including France, Germany, England and Spain (Reinhart and Rogoff 2009:86). For that reason today's emerging economies could also be expected to be able to mature from debt default. Even though debt default has increased in relevance for developed economies with the present problems facing Greece and several other European countries, analysis of debt default are beyond the scope of this thesis.

Inflation and exchange rate or currency crises go hand in hand. Severe inflation diminishes the value of the local currency compared to other countries with less inflation. In their extensive quantitative study, Reinhart and Rogoff (2009:180) find that no emerging economy in history has escaped severe inflation, severe inflation being beyond 20 % price increase per annum. Although difficult, it looks like developed economies have been able to escape severe and prolonged inflation at these rates. It is worth noting that inflation has been one of the key concerns for monetary authorities in the last century.

Even though a number of developed countries seem to have graduated from severe and broad debt defaults and very high inflation, they seem unable to escape banking crises (Reinhart and Rogoff 2009:141). There are basically two types of banking crises occurring in today's world: One, banking crises caused by financial repression and two, bank crises caused by bank runs. Poor developing and emerging economies show a history of banking crises due to financial repression. Governments take control of the financial sector by deciding where local residents can put their money. Then governments create regulations or if they control the bank, instruct the bank to finance public debt through lending. Governments often cap

interest rate, and inflation might become severe. This diminishes the value of the loan. Governments may very well decide not to repay the loan, and the bank is forced to default on its liabilities to the private residents (Reinhart and Rogoff 2009:143).

Bank runs are an imminent threat to developed and wealthy economies. Reinhart and Rogoff (2009:150-153) show that all the major economies in the world have experienced banking crises post-WW II and since 1800 the financial centers United Kingdom, the United States and France have been especially prone to crises. Normally, banks finance their positions by short borrowing, which they lend long. This means that banks do not have liquidity to materialize all assets at short-term if all depositors arrive at the bank's doorstep and demand their money. The system is built on trust and the expectation that if you need your money, you will get them. Normally there is no problem handling the daily surge for withdrawals. However, if people's trust in the bank suddenly disappears, and they stop believing the bank will be able to meet its payment commitments, there will be a bank run and depositors rush to banks to withdraw their money. This would force the bank to liquidize all assets and probably have a fire sale to be able to materialize the assets fast. This was what happened to the British bank Northern Rock late autumn 2007 (Shin 2009). As Reinhart and Rogoff states, even a completely sound and solvent bank would be destroyed by such a fire sale. Thus the fire sale would make the bank-run self-fulfilling (Reinhart and Rogoff 2009:144).

With interest in the institutional structures creating the crisis in the United States 2007, the scope for this paper is banking crises. By focusing on banking crises caused by bank runs in this thesis, it is more probable that I am able to draw inferences on the role of institutions than if I focus on the broad range of crises. The fact that Reinhart and Rogoff show that banking crises due to bank runs are the only crises that seem to occur in both developed and developing economies, enhances the interest for banking crises.

2.3 Causes of Banking Crises

Comparative empirical studies on banking crises have mainly been performed on the period post 1970 and to a large extent concentrated on crises in developing economies. Eichengreen and Rose's study (1997:9,10) investigates the empirical foundation of five sets of causes to banking crises in emerging economies between 1975 and 1992: domestic macroeconomic policies, external macroeconomic conditions, the exchange rate regime, domestic financial structure, and problems of supervision and regulation. Through quantitative analysis they find that the most important causes for banking crises are changes in global financial

conditions, especially rising interest-rates in industrialized countries. The argument of the authors is that outside forces beyond domestic control are very important in creating banking crises in emerging economies. While domestic factors as slow economic growth and tight fiscal policy set the stage for banking crises, there is no robust evidence to show that this has been the cause of crises (Eichengreen and Rose 1997:5-6). Gavin and Hausmann also emphasize the macroeconomic strains as a main factor for the occurrence of banking crises (Gavin and Hausmann 1996).

But does this really explain the *occurrence* of financial crises or the *timing* of financial crises? If there is no instability in the first place and no bubble or unsound economic structure, how can increasing global interest rates cause banking crises? What are the implications for my thesis? Are banks in emerging economies different from banks in developed economies in this respect? Eichengreen and Rose (1997:11) point to the fact that banks in developing countries disproportionately fund themselves offshore. That could explain why the global financial conditions are so important to them. However, I expect that a sole explanation of changing interest rates fail to explain the underlying dynamics cause banking crises. As long as banking is done soundly, rising interest rates should be incorporated in the bank's analysis. However, if banking practices are unsustainable, rising interest rates can be a key driver for instability and crisis. Then the underlying problem is not the increasing interest rate, but that banks put themselves in vulnerable positions; the institutional contexts crises develop in are important in explaining the outcome.

Other analyses have focused more on institutional structures. Kaminsky and Reinhart (1999) have found that financial liberalization often precedes these banking crises. Following Minsky's theory, the hypothesis is that financial liberalization leads to market mechanisms operating more freely, which creates booms and busts that leads to financial instabilities and financial crises.

Caprio and Klingebiel (1996:80) suggest that the occurrence of banking crises is due to a mix of bad luck, bad policy and bad banking. They find that even though macroeconomic conditions are important, these are not the underlying causes of bank failures. Macroeconomic conditions lay the foundation for the occurrence of crises through low economic growth and gloomy prospects on the future. However, my understanding of their article is that the internal dynamic within the financial market is responsible for financial instabilities. Lack of regulation and supervision is identified in 26 of the 29 crises in the authors' empirical investigation, which underline the danger of liberalizing finance and

banking. These hints lead to my interest for digging deeper into the mechanisms and to analyze how institutions at different levels cause banking crises. Knutsen and Lie (2002:92) identify interaction between banks, the macroeconomic conditions and the institutional environment. They emphasize that financial fragility is a precondition for systemic risk. In this thesis the focus is on how the institutional environment creates opportunities for the internal dynamic of banks to cause financial crises.

2.4 Summary

Institutions are found at different levels and with different scope. Theory suggests that national and international levels are important in relation to the financial market. Nationally, regulation of banks and the institutional arrangement surrounding financial markets lay the foundation for the interaction in the market, and should be crucial for the occurrence of banking crises. The role of the central bank and the application of monetary policy also affect bank behavior.

In addition, less bank- and finance-specific arrangements such as how businesses coordinate their behavior and achieve financing for their investments and what role the state has in the economy, may be important for the occurrence of banking crises. Close relations between banks and businesses and the state and the economy can provide the necessary stability and "guarantee" that banks will not fail. This implicit guarantee is all that is needed since as long as no one expects a bank to fail, no bank run is initiated and the bank will not fail.

At the international level, there are also important institutions shaping and constraining the markets for banks and finance. Both concerned with developments on monetary cooperation and the political and economic structure in the world, the 20th century saw substantial developments. In this thesis the goal is to identify how these institutional changes have created mechanisms leading to banking crises.

Earlier analyses of the causes of banking crises show a somewhat mixed picture. Several factors are important. Both macroeconomic conditions and institutions play a role. How these factors interact and what mechanisms create crises is more blurred. There is a lack of systematic qualitative comparisons on the institutional role in causing banking crises. T Therefore, this seems worthwhile further study. Given the theoretical framework and review of literature, I now to turn to the research design in order to elaborate how to analyze the institutional causes of banking crises.

3. Method of Inquiry

Having presented the theoretical framework for this analysis, I now turn to how the empirical analysis will be conducted; which goal I have with the research and how different considerations are dealt with in order to draw valid inferences from my analysis. The chapter begins with an elaboration of the goal of the research, followed by a presentation of the research design, the causal model and the specification of variables. Section 3.3 contains the design for the analysis and elaborates what cases are chosen in order to be able to answer my research question. The selection of Japan 1927, Japan 1992, United States 1929 and United States in the 1980s follows from the hypotheses generated in the introduction. Finally in section 3.4 I present some methodological challenges to this study and how I deal with these.

3.1 Goal of the Research

This section contains the methodological background of my analysis and presents my research goal. There are trade-offs when choosing methodology and there is no such thing as the perfect research design; it must be balanced between divergent goals and the possibilities on the specific subject of interest.

The goal of my research is to come closer to inferences on how institutional factors contribute to banking crises. This thesis can be seen as a building-block study, as it attempts to show how different institutional settings create banking crises (George and Bennett 2005:76). There is a lot of theory explaining the occurrence of financial crisis (see chapter 2). I find large-N comparisons of banking crises (Caprio and Klingebiel 1996; Kaminsky and Reinhart 1999; Reinhart and Rogoff 2009), however few structured qualitative comparisons on the role of institutions. My work follows in the comparative historical analysis-tradition in analyzing cases of substantially important outcomes through systematic and contextualized comparison and by focusing on the dynamic processes leading up to events (Mahoney and Rueschemeyer 2003:12). I believe that historical outcomes cannot be understood and explained without the historical context they occurred in. Lessons from the past should be integrated in our knowledge. In line with King et al.'s (1994:9) characteristics of scientific research, my goal in this analysis is to draw causal inferences on how mechanisms cause outcomes; on how institutional development affect the occurrence of banking crises.

3.2 Research Design

3.2.1 Causal model

The causal model derived from the theory in chapter two explains the focus of my analysis and my assumed causal interactions. My starting point is international and national economic institutions. The scope is how institutional arrangements at different levels affect the occurrence of banking crises.

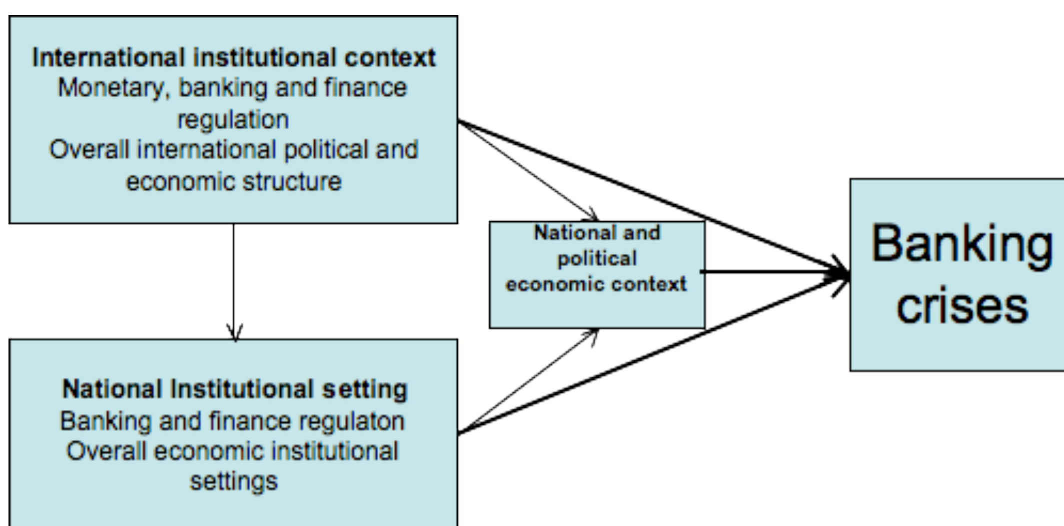

Figure 3-1 Causal model of banking crises

The model shows a link between the international and national institutional level. The theoretical link was presented in chapter two, with Gourevitch (1978) emphasis on the international level's influence on the national level. Since the focus of this analysis is on domestic banking crisis, the link from international to national seems plausible. The role of international organizations has been deemed important on several occasions. An example is the liberalization wave in Latin America and East Asia in the 1980s and 90s forced through by the Washington based institutions IMF and the World Bank, named the Washington Consensus (Stiglitz 2002). With this focus on the international level's influence on national politics, it is not my intent to disregard the national level's influence on the international level. However, as this is an analysis of the causes of national banking crises, I find that the international to national-approach is most fruitful. Both the national and international institutional levels have an impact on the domestic and international economic context. While economic performance and economic fundamentals change constantly, institutions are

more resistant to change. Thus institutions are placed first in the causal chain. If economic conditions are more long-term, then the causal order might be different. Institutional change due to the Great Depression might be an example of this. In this thesis the short-term economic conditions leading up to financial crises are studied.

The causal model is based on the assumption that banking crises are influenced directly by the international and national institutional settings, and by developments in the economic context. In addition, both national and international institutions directly and indirectly influence the latter.

3.2.2 Selection of variables

This section elaborates the specific variables under investigation and how I can identify changes on the different levels and scope. The different dimensions follow from the theory presented in chapter two and from the causal model in figure 3-1. Concerned with the institutional variables, the key is changes and differences within countries, to compare their development and how they affect the economy in relation to other countries and across time. From the initial institutional context, how institutions develop and interact in periods leading up to crises, are key focus areas of this analysis. However, the initial context will also be described. I will first elaborate on the institutional variables at the different levels and at different scope, before describing the indicators forming the economic context.

International money and finance regulation

The key aspects will be to identify what institutional monetary cooperation was present in the period leading up to the crises, and how it differed from the periods before crisis. One specific indicator of the structure of cooperation is how conflicting goals of fixed exchange rate, autonomous monetary policy and capital mobility are dealt with. Which goals are chosen and how is the system stabilized? Although this is an international dimension, the national adaptation and policies on these aspects are the important factors. In addition to the monetary cooperation, I will look for international initiatives towards international regulation of banking and finance.

International economic and political structure

This dimension is described by the international political and economic structure and how it is uphold. The role of the leading nation, the hegemon, will be important in this respect.

Which country, if any, has the characteristics of a hegemon in the periods of interest and how does this role change? How does the hegemon perform its role and does this affect the occurrence of banking crises? And if there is no clear hegemon and the leading role in security and economy is divided, does this explain financial instability in the world? The main emphasis will be put on hard power, in the form of military and economic influence, while "soft" power such as ideational and cultural influence to some extent will be presented where deemed important.

National bank and finance regulation

The national bank and finance regulation sets the stage for the daily interaction between banks and their customers. In this thesis I divide between regulation of commercial banks in the private market and central banks' goals and policy.

Commercial banking regulation

On commercial banking regulation, I analyze four different dimensions: Banking structure, banking regulation, supervision and monitoring of banks, and the scope of bank activities. *Banking structure* refers to how the domestic banking market in the countries of interest is organized. Do we find a number of small regional banks; do we find nationwide banks, or something in between? This dimension can tell us about the vulnerability of banks, since their size reflects the capital base and what resources will be available to banks in times of distress. The degree of *banking regulation* tells what kind of requirements are put on banks such as capital requirements to establish banks and the reserve requirement indicating how large amounts of loans banks are allowed to extend. *Supervision and monitoring* refers to the governmental capabilities of making sure banks operate within regulations and rules and the possibilities governments have to punish violations. The *scope of bank activities* is part of the regulations banks face, but deserve special emphasis. What activities banks are allowed to undertake may play an important role in analyzing how fragile and exposed banks are to volatile markets, and therefore may explain stability or instability in the banking market.

Central bank regulation and operation

Central banks are key governmental actors in banking and finance. The way the central banks are organized and the goals they pursue affect commercial banking and the financial sector as well as the rest of the economy. There are three main aspects to analyze: the mandate and goals of monetary policy, the actual policies applied and the ability to rescue

the system as lender of last resort. *The goals of monetary policy* explain to a large extent where central bankers put their emphasis. The goals can be fixed exchange rate, economic growth, low inflation, or stable financial markets, to mention a few. What implications have the different goals for the occurrence of banking crises? *The policies applied* in the periods leading to crises are also given emphasis. How did these polices affect the banking market, and did they have stabilizing or destabilizing effects on the financial markets? Last, does the central bank *perform the role of lender of last resort,* and if so, what implications might this have for the stability of the system?

National economic and political system

The broader institutional economic context explains the relationship between banks and businesses and the role of the state in the economy. How these factors are set up influence the overall economic foundation and in that respect the economic framework banks face.

Financial relations

On financial relations, there are three main aspects of interest: the links and ties between banks and business, the main sources of finance for business, and which customers banks are dependent of. *The ties between banks and business* explain to what extent these links are regulated by the government and may indicate to what extent situations of moral hazard, are present in the system. *The main source of finance* explains where businesses get their funding and how this affects the relationship with banks. Sources of business funding and market capitalization rates are important indicators. *Banks' dependence* indicates the reciprocity of the system. Which customers are banks dependent on and how does this affect the stability of the system?

State role in the economy

The last institutional factor in this analysis is the general state role in the economy. I will analyze two main aspects of macroeconomic policy: the industrial policy and the governmental response to economic instabilities. *Industrial policy* explains the state's approach to economic development and what measures are taken. Has the government applied a *laissez-faire* policy by letting the market allocate resources or has it applied an industrial policy intervening actively in the market? In addition *responses to economic instabilities* enhance the knowledge on the role of the state by analyzing what measures were

applied in times of economic downturn and financial instability. Different responses may to a large extent influence the stability of banks.

Economic context

This dimension should provide an overall assessment of the economic conditions in the periods leading to crises. By analyzing the economic context, I am able to provide a more holistic approach and the inferences drawn from the analysis are less vulnerable to omitted variable bias. I return to the methodological challenges in 3.4. The indicators chosen depend to some extent on the different crises, and what characterized these periods. *Inflation rate, economic growth, current account and trade balances,* and *public debt* are some key indicators. Together these figures give a good overview of the economic condition of the economy.

3.3 Design for Analysis and Case-Selection

3.3.1 Methodological trade-offs and banking crises

When doing social science research one faces methodological trade-offs. For both practical and theoretical reasons, we are unable to deal with all concerns. John Gerring (2007:38) analyzes the differences and possibilities between case studies and cross-case studies along ten dimensions. Is the goal of the research to generate or test hypothesis, to focus on specific causal paths or to generalize to a broader set of cases, to gain causal insight of mechanisms or on the causal effect the different factors have on the outcome, is the scope of the research dept or breadth? In contrast to large-N studies, case studies (understood as few cases) have their strength in hypothesis generating, focusing on special causal paths, to gain causal insight of mechanisms, and to go deep into cases. George and Bennett (2005:19-21) identify two distinct advantages with case-study designs, relevant for my banking crises-analysis: One, case studies have an advantage with conceptual validity, especially when analyzing variables difficult to measure and assign values. When dealing with events unfolding over a century, as in my case, different institutional settings can be analytically equivalent. I will not be able to find this equivalence without thorough analysis of each case. Second, case studies are suitable for exploring causal mechanisms. In order to analyze causal mechanism, in-dept analysis is necessary. This makes my institutional analysis more concerned with internal than external validity. Internal validity refers to the establishment of causal

relationships, while external validity refers to the ability to generalize the findings to an unstudied population (Gerring 2007:43). In this thesis I will therefore conduct a comparative case study.

Although not belonging to this tradition, my methodological approach is inspired by Charles Ragin's (1987) qualitative comparative analysis (QCA). The inspiration comes both in relation to the nominal view of causation and in relation to the focus on combinations of factors producing outcomes. QCA is a case-oriented approach emphasizing the specific contexts and combinations, in opposition to variable-oriented approaches focusing on the role of individual variables. Ragin (1987:27) argues that variable-oriented approaches, where different explanatory factors are treated as independent of each other, in many instances lead to wrong causal inferences. Instead of focusing on the impact of independent variables, one should focus on conjunctures of variables and the contextual specificity of all cases. In this thesis this means analyzing how institutional factors interact with other factors as economic fundamentals in causing banking crises. It is the institutional settings at different levels, together with the economic contexts that produce the outcome. Caprio and Klingebiel (1996:91) have already described these interactions. My analysis will study these interactions further by emphasizing what causal mechanisms make institutional developments lead to banking crises. My study takes a nominal view on causality. The nominal approach assumes a non-linear understanding of causation and analyzes necessary and sufficient conditions (Mahoney 2003:338). Individual factors are therefore important to the extent they are necessary or sufficient in producing outcomes. This approach contrasts the linear understanding of causation where one is able to specify what effect each individual factor has in producing the outcome.

The forthcoming analysis is a comparative case study, designed to compare the institutional role in the build-up of banking crises across time and space with a focus on contexts. With a focus on contexts one is able to find how different combinations of factors produce the same causal results (Ragin 1987:49). To test my first hypothesis, that banking crises are caused by a combination of factors, a qualitative study is chosen. This makes me able to focus on mechanisms and see how the different factors interact in order to produce crises. Both chapters of analysis will contain an international section, analyzing the international institutional context, and two national sections, analyzing the different national institutions and their contribution to banking crises. In this way the chapters reflect the casual model presented in figure 3-1. Focus will be given to the institutional developments in the periods

leading up crises. Hence, I will be able to identify how institutional changes have taken place from periods without crises, to periods of crises. By comparing different institutional settings, at different levels and with different scope, I may be able to see patterns of how institutional settings affect the occurrence of banking crises and how different institutional settings may produce the same outcome.

3.3.2 Selection of countries and crises

My second hypothesis argues that market economies with liberal institutional settings are more prone to banking crises than coordinated economies. To be able to compare different national economic institutional settings, a comparison between countries is chosen. The key is to analyze countries with different institutional settings, in order to draw valid inferences. In this respect the United States and Japan stands out. The United States is the typical liberal market economy. Coordination among firms and business relations in this economy is done through market relations (Hall and Soskice 2001:27). The stock market is the most important source for finance, while the state takes a *laissez-faire* approach to the economy by protecting the free market (Katzenstein 1985:20). As economic hegemon in the world since WW I , economic development in the United States affects the rest of the world. At the same time, the country has experienced several periods of banking crises in the last 100 years. This makes me able to compare national institutional settings across time.

Japan is chosen as a coordinated, regulated and statist economy. The United States and Japan differ in institutional arrangements related to both firms and banks and the role of the state (Hall and Soskice 2001:19, Katzenstein 1985:20). Much of the coordination in Japanese business has traditionally come from *keiretsu* families of corporations in many sectors. While Japanese companies face fierce competition between firms in the same sectors, there is a lot of coordination and cooperation within the business family (Hall and Soskice 2001:34). The Japanese political economy has also been known for its statist approach (Katzenstein 1985:20). As the United States, Japan has experienced substantial economic growth over the period of interest as one of the world's most successful growth stories, at least up until the early 1990s. At the same time, Japan has also experienced several banking crises. By analyzing the case of Japan, I may find that the coordinated dynamics of the economy produce banking crises, or I may find that liberalization of some key institutions related to the Japanese economy has been vital in the build-up of banking crises. In analyzing two countries where banking crises have occurred, this research design resembles

the "least similar" case design (George and Bennett 2005:84). I emphasize causal mechanisms within my different cases, and compare these in the final synthesis.

My third hypothesis states that the recurrent this-time-is-different syndrome makes us repeat our mistakes over and over again in relation to financial crises. To analyze this hypothesis, I need to analyze different historical periods where crises have occurred to see if the same mistakes are repeated. In order to analyze how this syndrome affects the institutional arrangements, comparison across time is vital. Thus, I choose two banking crises in each country. If I am able to show that institutional settings in the United States and Japan in the 1920s and in the 1980s and 90s are similar, inferences on how these settings affect the occurrence of financial crises strengthens my third hypothesis.

Table 3-1 Selected banking crises

International context	**Nation**	
	United States	**Japan**
Interwar period	1929-1933	1927 (1920s)
Post-Bretton Woods	1980s	1992-1997

Concerning the specific banking crises to analyze, Reinhart and Rogoff (2009:348-392) presents a substantial database on banking crises all over the world. These banking crises are identified by substantial bank failures due to loss in confidence with the banks' ability to liquidate assets, as explained in the theoretical chapter. For the US and Japan they find two periods of banking crises in each country from 1920-2000. In the US banking crises are found in 1929-1933, and 1984-1991. In Japan they find banking crises in the 1920s (1923 and 1927) and in 1992-1997. Referring to these crises I will use Japan1927, Japan1992, US1929, and US1980s. The build-up to the crises is my key concern. In order to compare the variables at the time of crises with periods without crises, I choose to analyze a time-span of approximately 10-15 years before the crises occur. The important thing is to identify the key institutional changes. It takes some time for institutional changes to make an impact on economic behavior and outcome. As noted, the analysis of the periods leading up to crisis makes me able to compare the institutional settings in times of both instability and stability in domestic banking.

Data for my analysis are based on earlier analyses of the institutional structure in Japan and the United States. I draw on recognized analysts and their empirical investigations of the cases of my interest. Reliability is ensured by relying on key experts on the topic and by referring to several independent researchers when possible. My analytical move is to present these crises in the same institutional framework and compare them. In that concern, the key

element in my analysis is the developments on the different institutional structures. The emphasis is not put on absolute levels and figures on these institutions. Inferences drawn from these cases should for that reason not contain inferences on what specific regulations and rules should govern, but should emphasize what direction of development should be applied to the different institutions. Now follows a discussion on some key challenges for this kind of research.

3.4 Methodological Challenges

Omitted variable bias

All social science research contains some uncertainty in the inferences drawn. We can never be certain that the results we find are the causes that created the outcome. To omit relevant variables lead to spurious effects in our research (King et al. 1994:168). An analysis may show that a certain variable correlates perfectly with the outcome. The causal effect though may be produced by some omitted variables. This leads to methodological fallacy. However, through qualitative case studies, the risk of omitted variable bias should be decreased through in-depth analysis of each case. George and Bennett (2005:254) argue that by combining process tracing with comparative methods the risk of invalid inferences from spurious effects is reduced. In addition this process tracing may help in identifying relevant variables that are initially overlooked. My focus on within-case mechanisms will in this respect reduce the chance of omitting important variables. However, since uncertainty is always present in social science, the potential risk of omission of variables must be taken into account when concluding.

Selection bias on the dependent variable

King et al. (1994:129) argue that in order to make causal inferences one must allow at least some variation on the dependent variable. If the analysis only contains cases with a positive outcome on the dependent variable, one will not know how the explanatory factors are in negative cases on the dependent variable. However, when studying events like banking crises, it is difficult to decide what cases of non-crises to choose. In most years, financial crises do not occur and the selection of some random year may not contribute in avoiding this problem. One solution to this is to develop selection criteria like Mahoney and Goertz' (2004) "possibility principle" where one only selects cases that could have been positive by identifying a factor necessary for a positive outcome. However, I find it difficult to apply a

selection criterion in advance on what makes banking crises occur. George and Bennett (2005:23,76) emphasize that selection on the dependent variable should not be rejected all together; it depends on the purpose of the research. When the purpose of the research is to identify different causal paths to an outcome and to study mechanisms at work, no variation on the dependent variable can be useful. Even so, when making inferences from my analysis, I must be conscious of this challenge. By focusing on how the causal mechanisms work, I should at least be able to make qualified inferences on the role of institutions in banking crises. A comparative approach, which to some extent analyzes periods without crisis could reduce the critique of selection on the dependent variable to some extent. When making inferences on how institutional developments have caused crises, generalizing must be done with caution. As mentioned, the key emphasis in this study is internal validity.

Part Two: Empirical Analysis

4. Banking Crises in Japan and the United States in the 1920s

This chapter analyzes the institutional and economic development in Japan and the United States in the period leading up to banking crises in 1927 and 1929. I start with international institutions and structures followed by domestic institutions in both countries in chronological order. Each nation-specific section is concluded with a discussion of the institutional interaction leading to banking crisis.

4.1 International Institutional Context in the 1920s

4.1.1 International monetary cooperation

A fruitful way to understand international interwar monetary cooperation is by contrasting it to the gold standard before WW I . As the monetary and economic hegemon the UK had adopted a de facto gold standard in 1717 (silver was undervalued and not attractive), more and more countries converted to a pure gold standard in the last quarter of the 19th century. Japan adopted it in 1897 and the United States committed to gold through the Gold Standard Act of 1900 (Tamaki 1995:82; Eichengreen 1998:41).

The gold standard was a fixed exchange rate regime where all countries were to uphold convertibility at a fixed exchange rate to gold. Eichengreen (1992:9) emphasizes that key to the functioning of the gold standard was credibility and cooperation. The governments' commitment to the foreign exchange rate was credible, so there was little reason for intervention by central banks and this led to stability (Eichengreen 1998:32). In times of distress central banks acted as stabilizers for each other and cooperated to maintain the gold standard. This is illustrated by the assistance from the UK and France in the 1898-crisis in Germany, and in 1900 and 1906 when Bank of England was assisted by the German Reichsbank and Bank of France (Eichengreen 1998:35). Changes in monetary policy were conducted through a follow-the-leader-policy, following the dominant Bank of England. The British monetary hegemony for that reason was an important stabilizer of the prewar gold standard.

The prewar international financial system was liberal and there were limited restrictions on capital movements. In order to uphold gold commitments, countries had to use monetary policy tools. For that reason these tools were not available for pursuing other economic goals as general welfare or counter-cyclical policies. This was possible due to the limited franchise of democracy in the gold standard countries (Eichengreen 1998:31). Maintaining the exchange rate from time to time needed tight monetary policies. These tight policies could have severe implications for the public as credit and investments became more expensive leading to slowdowns in the economy. As long as few people were allowed to vote, large fractions of the public had few possibilities of inserting direct pressure on policy makers and the authorities could purse the fixed exchange rate by any means necessary; it was credible that authorities would prioritize upholding the exchange rate instead of pursuing other economic goals. With the war in Europe between 1914 and 1919, the gold standard was abandoned due to the fact that heavy spending to finance the war was incompatible with defending the fixed exchange regime. After the war, returning to the prewar gold standard faced difficulties as the expansion of the money stock to finance the war-costs had created high inflation and severely declined the purchasing power of the world gold stock (Gilpin 1987:129). During the war, dollar had increased its influence over international monetary cooperation. As the American government pursued a deflationary policy in the initial interwar years, other countries had one of two options: to follow American deflation or to depreciate their currency (Hetzel 2008:14).

After the war there were attempts to reconstruct the gold standard. The difficulty was that none of the factors ensuring the prewar gold standard existed after 1919 (Eichengreen 1998:46): Credible commitment to the exchange rate could no longer be taken for granted as extensions of the franchise created heavy pressure to have an autonomous monetary policy and to pursue other economic goals than maintenance of the exchange rate; the leading economic role of the UK was declining and Bank of England could no longer be leading the other central banks; and cooperation among the major European states was substantially more difficult than before the war. An example of the changed commitment to the fixed exchange rates is found in the UK in mid 1920s. The UK returned on gold in 1925 at the same rate as earlier. This level was too high and did not recognize the declining strength of British economy. The result was economic downturn and severe hardship experienced by the working class, which eventually led to the General Strike in 1926 (Gilpin 1987:129). As the

British authorities had prioritized the exchange rate over general welfare, these events showed the difficulties of fixed exchange rate commitments in growing democratic society.

The US had gained position as economic hegemon and from 1913 to 1918 it had raised its share of the world gold reserves from 26.6 to 39 % (Eichengreen 1998:65). Commitment to stabilize the system, which had been so crucial in the prewar-era, was not in place. At the one hand American authorities were in a position to stabilize the exchange rate system, on the other hand the authorities had pressing matters at home where monetary policy was an attractive tool. Instead of stabilizing the system, domestic economic needs were prioritized (Eichengreen 1998:68). From 1919 US dollar regained convertibility into gold at the prewar level and by the second half of the 1920s the UK, France and Germany were once again "back on gold" (Eichengreen 1998:64). Japan did not commit to gold until after the banking crisis in 1927 although committing to a fixed exchange rate throughout the period. The United States played the leading monetary role in the 20s. Both due to their strong competitiveness and due to the repayment of war-debt, the US had large gold inflows from the middle of the 20s. This strengthened the US balance of payments. The expected result was an increase in American prices as since more money was introduced into the system. This did not occur as the US lent much of the surplus back to Europe (Eichengreen 1998:69). In this way American prices were kept low and attractive for exports. As the Federal Reserve increased its concern for the New York stock market boom, interest rates were increased in 1928, providing a blow to borrowers as well as making it more attractive to invest in fixed-interest US securities. As a result, American foreign lending dramatically decreased from the second half of 1928 (Eichengreen 1998:71).

4.1.2 International economic ideas and political structure

Getting out of WW I , the international political structure faced a new political reality. The war and the peace treaty had destroyed the fragile 19th century economic order (Polanyi 2001:24). In his analysis of the peace treaty Keynes (1919) argues that German reconstruction would be impossible with the heavy reparation burdens put on the country. As Germany was the locomotive for imports of European merchandise, this would threaten the whole economic recovery of Europe. Inflation was a major problem as states had financed their war spending with printing money. The result was a decade of economic and especially currency-turmoil in a number of European states (Polanyi 2001).

League of Nations was established to prevent new major wars and increase international cooperation in the 20s. The British historian E. H. Carr finds that the League of Nations and other international institutions in the 1920s were built on flawed liberal assumptions on the harmony of interests (Jones 1998:49). The same assumptions were the basic idea of economic liberalism developed by Adam Smith. When the United States Congress did not ratify the League of Nations the country withdrew from the international political scene, although still being economically involved (Gilpin 1987:310). In other countries, trade openness from the prewar era lost its primacy as states initiated protectionist measures to recover from war. Only in the United States trade openness remained the official policy towards 1929 (Jones 1998:52).

Kindleberger (1987:290) argues that hegemonic stability theory can contribute substantially to the explanation of the severity of the Great Depression. He finds that the British hegemony that was prominent in the prewar era at the end of the 20s had lost its power. The Americans were not interested in playing the role of hegemon and the international economic system lacked the stabilizer from previous times. With the United States running a deflationary policy to deal with the economic problems in the early 30s, the Great Depression was intensified on the international level (Gilpin 1987:130).

Thus, from this it seems like the international political structure and economic ideas are more fragile in the 1920s and early 30s than in previous periods, in large to the unwillingness of the US to play the role of hegemon for the world economy.

4.2 Banking Crisis in Japan 1927

The 1920s in Japan was characterized by major instabilities in banking. Banking crises occurred in 1920, 1923 and 1927, which was most severe and led to the most substantial changes in to Japanese banking and financial markets. Therefore, the build-up to the 1927-crisis is given most weight here.

In 1923 the banking system was put to severe strain as a major earthquake hit the Yokohama and Tokyo area, the country's banking centre. In Tokyo 285 of the city's 542 banking offices burnt down and the most devastating hit to banking was the loss of documentation for advances, and records detailing securities (Tamaki 1995:148). The government initiated emergency measures including a payment moratorium and the issuing of Earthquake Casualties Bill (Tamaki 1995:150; Hoshi and Kashyap 2001:28; Schiffer 1962:20). The bill was issued to help banks meet their commitments and to give them a sigh of relief to get

back on track. The Earthquake bonds were supposed to be repaid in 1925, but were extended until 1927. In connection with discussions of repayment in the Diet (Japanese parliament) in early 1927, there was a growing concern in Japan that banks would be unable to repay their loans and that the underlying conditions of Japanese banking was fragile. A bank run to withdraw money from the most exposed banks was initiated and there were massive bank failures. Between January 24 and April 21 1927, thirty-four banks were suspended, effectively closing the doors of 319 bank offices. By September, the Ministry of Finance assessed that 126 banks had closed, been very near closing or were officially suspended. Bank of Japan (BOJ) performed an extensive job of upholding the banking system, and gave ¥2,000 million or 18% of Japanese bank deposits to stabilize the system (Tamaki 1995:154). The failing banks were among the most significant banks in Japan; including the Tokyo Wanatabe Bank, the second ranked Tokyo-based bank with ¥5 million paid-in capital, ¥37 million deposits and ¥38.5 million advances, and the Bank of Taiwan with ¥39.3 million in paid-in capital, ¥92.8 million deposits and ¥544.9 million in advances (Tamaki 1995:152-153).

A banking crisis of this magnitude was unprecedented in Japanese economic development. The coming sections analyze how the institutional environment developed in the first decades of the 20th century and how these institutional settings contributed to crisis.

4.2.1 Banking

Commercial banking regulation and operation

The Japanese banking system was designed and built on past experiences from other countries in the late 19th century. Early developments was especially inspired from the British and the American banking system and built on designs found on field trips to the economic leaders of the day (Tamaki 1995). The first years of Japanese banking was characterized by trial and error, experiencing both a limited development of banks followed by severe inflation as regulations were cut to increase the number of banks (Hoshi and Kashyap 2001:18-21). After the establishment of Bank of Japan (BOJ) in 1882, ordinary banking changed drastically and there was a huge increase in the number of banks. After the introduction of the 1890 Bank Decree, the number of commercial banks grew from 216 to 1634 in ten years (Schiffer 1962:16). This decree built the foundation for Japanese banking towards 1927 and stated quite simply that all business conducted in securities and discounts were termed banks. Banking regulations were liberal and contained two main features: First, there were no minimum limit to the amount of capital and second, there was limits to

advances set in relation with the amount of capital (Tamaki 1995:76). The dramatic increase in number of banks may be attributed to the fact that there were no minimum limits to the amount of capital. From this period, the Japanese banking system is seen as a *laissez-faire* system with few regulations imposed by the government (Vitols 2001:178; Ueda 1994:90). The structure of the banks in Japan was a vast number of small banks in the period leading to banking crisis in the 1920s (Schiffer 1962:20; Hoshi and Kashyap 2001:45). In addition to these features, the Bank Decree emphasized the importance of supervision of banks. Because of the vast number of banks, supervision was costly and demanded a lot of resources. Close supervision and the vast number of banks to supervise provided a dilemma for the supervising authority and "the system was always vulnerable to abuse" (Tamaki 1995:105). Moral suasion, which was prominently used by the Ministry of Finance, did not suffice to restrain banks.

Japanese banking was characterized by the two-tiered system, on the one hand five big banks that stood for 1/5 of all deposits and 1/7 of all advances and on the second hand, the vast number of small and fragile banks. The five big banks, Mitsui, Mitsubishi, Sumitomo, Yasuda, and Daiichi Banks, were founded in the late 1800s and provided a widespread business-portfolio, containing both banking and industry, establishing what was termed *zaibatsu* (Tamaki 1995:106). They upheld their dominant position and in 1930 these banks accounted for 28.1% of all deposits and 20% of all advances. Schiffer (1962:21) argues that this size made the five banks largely independent of the central bank and made them follow their own strategies instead of always following BOJ's leads. As an example Ogura (2002:15) argues that the Matsui bank also operated as lender of last resort for other banks and industries in the banking crisis in 1927.

Between 1915 and 1920 there were revisions on two bank decrees, the Savings Bank Decree (1915) and the Bank Decree (1916). These laws made supervision stricter and prohibited the mix of different businesses concurrent to banking (Tamaki 1995:126). In the period following the implementation of the new laws, there was a substantial merger movement in Japanese banking, as the Ministry of Finance wanted larger and more stable banks. There were different requirements for different kinds of banks, and saving banks were faced with the most liberal requirements. The merger movement led to an increased number of saving banks while the number of ordinary banks declined (Tamaki 1995:127). Despite the obvious efforts to strengthen regulation and supervision the Ministry of Finance failed to provide

effective regulation and supervision of banks and to target banks clearly carrying out unsustainable practices (Tamaki 1995:126).

During WW I , Japan witnessed economic expansion and banks experienced increasing deposits and advances. In this period a number of banks had been too expansive and taken advantage of the lack of effective supervision and regulation. Capital had been cheap during the war something that changed substantially as BOJ increased and sustained high interest rates in the early interwar period. In the 1920s, securities and commodity markets suddenly experienced a standstill and the BOJ provided emergency loans for a number of banks. No banks failed but some were temporarily closed. This development was seen as a hint of what was yet to come. In their review of the causes of the crisis, the BOJ identified some underlying weaknesses of banking (Tamaki 1995:141):

> ... [they] pointed out the mismanagement of banking business, the risky lending, either uncovered by securities or covered by doubtful securities, priority lending to directors of the banks concerned, and irregular and careless audit.

This understates that even though regulation was tightened and there was a set-up for supervision, these institutions were not effective in impeding banks from violating the restrictions and requirements put on them. The Ministry of Finance was quick to further tighten regulation and to merger banks in order to make them more resistant to instability (Tamaki 1995:141). Still a significant number of small banks were allowed to operate despite the strict regulations. This regulatory system was in place until 1927. With effect from 1928, a new banking act was applied to further strengthen the ordinary banking system. Requirements were toughened and the capital reserve requirement was doubled in absolute terms. In addition separation of banking activities and the removal of the close ties between business managers and banking directors (which in several instances was the same person) were severely tightened (Tamaki 1995:157-158). The banking system in the 1920s Japan had been and conducive to banking crisis.

Central bank regulation and operation

The BOJ was established in 1882, in order to be the sole supplier of money, to redeem inconvertible paper currency and to form a kind of interbank relationship (Schiffer 1962:16; Tamaki 1995:62,64 Hoshi and Kashyap 2001:22). The bank was established by a joint-venture between the government and private forces, the government providing half of the capital stock of ¥10 million and being allowed to appoint management. As noted, the

Japanese were influenced by foreign experiences in their institutional set-up of banks, so also in the establishment of central banking. Tamaki (1995:62) points out that BOJ was an almost word-by-word imitation of the Belgian central bank-model. In this early functioning of the bank, it is worth noting that already in the 1890s, the bank proved itself to be a fully-fledged central bank by acting as lender-of-last-resort for a banking system put to strain by bad harvest in 1889 (Tamaki 1995:67).

Japanese monetary policy in the pre-1927 period was characterized by the country's commitment to the gold standard. This commitment and the maintaining the gold reserves were to become the major monetary goals in the period leading up to WW I . On the world stage where capital controls were limited, this meant that monetary policy was set in order to maintain the gold standard and in order to have specie reserves to be able to handle fluctuations in the market. This commitment produced high bank rates leading up to WW I (Tamaki 1995:92). With the connection to the gold standard in 1897, Japan was connected to the leading financial market in London thus being able to attract foreign funding (Tamaki 1995:82). The lack of an interbank market around 1900 led to a lot of strain on BOJ as the only lender to banks.

The specie reserve problem was vital for Japanese authorities leading up to 1914 and heavy deficits and trade imbalance led to great concern. A solution between the Ministry of Finance, Bank of Japan and Yokohama Specie Bank was reached in 1914, to encourage economic growth and increase emphasis on exports (Tamaki 1995:114). The export boom and economic growth in years of WW I provided Japan with large inflows of gold. The specie reserve grew from ¥341.1 million in 1914 to ¥2,178.6 million in 1920 (Tamaki 1995:115). The concern for lack of specie reserves could rest and interest rates were relaxed. In 1917, Japan prohibited specie exports following the big powers (the US, France and Germany) (Tamaki 1995:144). After the war, the Japanese trade balance suffered once again, and specie reserves returned as a major concern for the Japanese monetary authorities. Between 1919 and 1922 specie reserves declined by 11% and specie kept abroad, reflecting the country's trade position, declined by 54% in the same period. Once again the interest rate was used to attract specie and the rate was increased from the record low 5.11% in March 1917 to 8.03% in autumn 1919, were it remained for the next five years (Tamaki 1995:140). For an economy experiencing tough times, these high interest rates did nothing to relieve pressure.

The ability of the BOJ to pursue an autonomous monetary policy is put into question by Allen (1980:31). He points to the *zaibatsu* financial power and their unwillingness to accept the deflationary policy by BOJ. Instead they pursued their own credit policy extending credit to their business affiliates, undermining BOJ's policy. Concerned with adopting the interwar gold standard, the Japanese government and parliament debated this extensively from 1919. They did not agree on when and at what level they would return until after the banking crisis in 1927 (Tamaki 1995:144). Even though Japan was not committed to the gold standard, BOJ pursued maintenance of the exchange rate (Allen 1980:31).

During the crisis-years from 1920-1927, BOJ operated as lender of last resort and provided a lot of funds in the market. Especially the Earthquake bills from 1923 provided a substantial relief to the banking system. However, it was when these were supposed to be collected, the 1927 crisis occurred. Thus, it may seem like these loan-extensions made by the government and BOJ only concealed the underlying instabilities in the market. During the crisis in 1927, the Bank injected ¥2000 million in emergency loans to fragile banks (Tamaki 1995:148,154).

4.2.2 Economic system

Financial relations

There are two major characteristics of the financial relations system in 1920s Japan. First, the system was characterized by close ties between directors of banks and managers in business and quite extensive concentration in borrowers. Second, market capitalization in Japan in the 1920s was very high, even by today's standards.

As pointed out in *commercial banking regulation*, the government was concerned with the tight relations between banks and their borrowers. This was especially pronounced in the big *zaibatsu*, however was also characteristic for other banks. Examples from some of the failing banks in 1927 illustrate this. The directors of these banks represented from 30% (Imabari Shyogo Bank and Fifteen Bank) to 74% (Tokyo Watanabe Bank) of advances in the banks in 1927 (Tamaki 1995:152-153). These advances were to a large extent given with insufficient security. Ogura (2002:21) shows that concentration in customers was pronounced even for the big banks. In his elaboration of the development of Matsui Bank, he argues that the bank was selective of its clientele and especially targeted major companies. This concentration put the bank in financial difficulty as some of its major debtors experienced runs in 1927.

Even though banks concentrated their business to few companies and were fragile to economic swings in specific industries, business was less dependent on banks. The sources of funding were through stocks and bonds as well as bank borrowing. The stock market was important and accounted for more than 35 % of new net external funds in the period between 1922 and 1931(Hoshi and Kashyap 2001:36). The stock market capitalization grew considerable in the period from 1920 to 1926, from 50% of GDP to 84% (Hoshi and Kashyap 2001:39). This is substantial compared to contemporary figures. 1998-figures show that France (69%), Japan (66%), and Germany (51%) had a less pronounced stock market than Japan in the 1920s (Hoshi and Kashyap 2001:40). The combination of dependence on some major firms while these firms to a large extent were dependent on the stock market, may have contributed to increased fragility in banking, and linked the banking system indirectly to stock market developments.

State role in economy

The Japanese state played an important role in establishing banks and financial institutions to achieve economic development in the country as well as applying industrial policy to achieve economic growth. The industrial policy contained both protectionist measures for Japanese industry and mercantile business and heavy investments in different enterprises, most notably iron and steel works and railway development (Allen 1980:21). Vitols (2001:175) argue that the Japanese development in the early 1900s was more state- than bank-based. As Japan experienced downturns, the government was quick to increase expenditure and to apply rescue packages. In the 1920s, the economic growth was fueled by a substantial increase in government debt (Allen 1980:30). The governmental intervention in Japan seems to be part of a long-term economic development plan where government intervention was vital.

In addition to the direct approach, the government established several special banks to take care of different functions in the economy. The Yokohama Specie Bank was established in 1880 around merchants in Yokohama, developed to provide Specie to Japanese business (Tamaki 1995:47). The government played an important role, providing ¥4 million of the ¥12 million of the initial capital in the Bank (Schiffer 1962:17). Through the 1880s, the Specie Bank was given a special status in the Japanese banking system, in exchange for renouncing some vital elements of its independence to the Ministry of Finance and the BOJ (Tamaki 1995:70). In the heavy growth period between 1914-1919 the Specie Bank was an important actor, in playing the role as facilitator for exports and imports businesses in

providing finance. By 1919 the bank stood for 44% of the country's export financing and more than 40% of Japanese import financing (Tamaki 1995:119).

As well as establishing a bank especially targeted to overseas business, the government also created development banks for communities and industry. The Hypothec Bank was to provide regional communities with long-term lending while the Industrial Bank of Japan concentrated on long-term credit to heavy industries like shipbuilding, iron and steel factories and public utilities (Schiffer 1962:18-19; Hoshi and Kashyap 2001:24).

Schiffer (1962:17) emphasize the establishment of special banks as part of a systematic political plan to develop the country. He emphasize that there was no large middle class in the Japanese society to act as lender for industrial development, hence the state needed to take an active role in the economy.

4.2.3 National economic context

The Japanese economic development during WW I was remarkable. International indicators as exports, specie reserve and trade balance were booming in this period. European producers were suffering due to war and Japanese exporters faced less competition than before. After the war, this turned as European businesses regained strength and an outwards focus.

Table 4-1 Japan's economic development 1914-1919 (Tamaki 1995:115)

	1914	**1919**
Exports	¥670 million	¥2,379 million
Trade Balance	- ¥9.5 million	¥397.2 million
General Account	- ¥42.1 million	¥533.2 million
National Income	¥2,241 million	¥12,834 million
Specie Reserve	¥341.1 million	¥2045.1 million

On March 15 1920, the country experienced a collapse in both securities and commodity markets (Tamaki 1995: 140). The country experienced a short recession and the economic downturn put strains on the Japanese banking (Hoshi and Kashyap 2001:27). From 1919-1922 specie reserve declined by 11 % and trade balance returned to negative figures. Imports exceeded exports by ¥260 million in the first quarter of 1920 (Tamaki 1995:140). The downturn was short and between 1922 and 1926 Japanese economy was growing once again. The growth in the 1920s was to a large extent fueled by government spending and government debt increased substantially towards 1927. In 1926 national debt was 75% higher than in 1918 (Allen 1980:33). Allen (1980:30) argues

that Japan did not follow the world deflation trend and instead boosted the economy with governmental spending. While refusing to depreciate the yen value compared to dollar and pound, the country had to rely on her foreign balances.

4.2.4 Institutional interaction

There are some characteristics of the institutional structure that stand out. Ever since the flourishing of small banks in the late 1800s and beginning of the 1900s, there was a major concern that these banks, given their limited resources and small capital reserves, would be fragile in economic downturns. Another concern was the numerical magnitude of banks, which made thorough supervision a major challenge for the Ministry of Finance. Several banking acts were implemented to deal with this problem, though not being able to apply appropriate measures in order to achieve effective supervision of the system. The lack of supervision made the system prone to exploitation and as I understand it, was a major source for the financial instability that occurred in the 1920s.

In addition, bank fragility increased because of the tight relationship between banks and business. This laid the ground for moral hazard, which lead to extensions of loans with inadequate, or no security and banks that ignored or sabotaged audit and supervision. Even though regulation became tighter during the first two decades of 20th century the enforcement was ineffective and undermined the established controls and restrictions. In making a regulatory framework binding, effective supervision and monitoring seem crucial.

Banks' dependence on some key businesses, while these businesses were more dependent on stock markets to attain capital, provided another potential source of fragility for banks. A severe stock price fall would contribute to a weakening of the business liabilities and through the banks dependence on the business, could contribute to major fragility for banks, making them less able to capitalize their assets if needed. The links between directors of banks and their respective debtors were problematic and are emphasized as a major source of the instability in the Japanese banking system.

A major concern for BOJ since the adaptation to the gold standard was the maintenance of an adequate specie reserve and upholding the commitment of the fixed exchange rate. While capital mobility was high, this meant that monetary policy needed to be adjusted to attract the necessary specie. In the period leading up to WW I , imports exceeded exports and bank rates were high. After WW I , the concern of specie reserve once again was pushed to the forefront of Japanese central bankers' attention, and interest rates were substantially

increased. For a booming economy where supervision and regulation of the banking sector had been inadequate, and too many advances had been given, the severe tightening of monetary policy revealed systemic weaknesses in the banking system. In being able to maintain the exchange rate towards dollar and pound, inflation needed to be checked and specie reserves upheld. Monetary policy was applied to this, making interest rates drastically increase in the beginning of the 1920s.

On the other hand, when crises occurred, BOJ proved itself as a stable and reliable lender of last resort. Both in the 1920-crisis, and in the aftermath of the earthquake in 1923, BOJ extended credit to banks in crisis. The problem was that inadequate measures were taken to reform the system, thus the underlying weaknesses in the system was sustained. Even in the 1927-crisis, BOJ provided crisis-capital, which may have been a reason for the swift rebound of the economy. There was no long-term depression in the Japanese economy. As the state had a "hands on"-approach to economic development, this made sure that the state possessed vital tools to get the economy restarted and to fuel the system with money in times of fear.

4.3 Banking Crisis in the United States 1929-1933

In the 1920s the US was characterized by a number of bank failures. Between 1921-1929 nearly 6,000 banks failed, ten times as many as the six preceding years. Friedman and Schwartz (1963:249) in large contribute this to technical improvements in transportation and the increased urbanization experienced in the country. The suspended banks were to a large extent banks with capital less than $25,000 located in towns with population less than 2,500. However, in the aftermath of the Great Crash on the New York Stock Exchange in 1929, a new era of bank failures commenced.

The banking crisis in 1929-1933 is one of the key distinguishing features of the Great Depression, which caused a devastating economic downturn. The banking crisis marked an unprecedented period of bank suspensions in the history of the country. While averaging 635 bank suspensions in the period 1921-1929, the years 1930-1933 provided 1350, 2293, 1453 and 4000 bank suspensions (Board of Governors of the Federal Reserve System 1943:283). This reduced the number of banks from 25,330 in 1929 to 14,624 in 1933 (U.S. Bureau of Census 1949:262).

The Great Crash on the New York Stock Exchange in the autumn of 1929 initiated the economic crisis. Before the crash there was a modest economic downturn but there were no reasons for a severe depression (Galbraith 1975:112). The economic crisis became severe

and long. From 1929 to 1933 GNP was almost cut in half and in 1933 one of four was unemployed (U.S. Bureau of Census 1949:12; Galbraith 1975:186). Now follows the analysis of the institutional structure in the build-up to the crisis.

4.3.1 Banking

Commercial banking regulation and operation

The origins of American banking are found in the colonial banking system the British developed. Charles Calomiris (2000:xix) argues that the institutional development in banking regulation can be understood as responses to historical events and long-run path-dependency. Two main features characterizing the pre-crisis structure of banking was: The large number of small unit banks found under state jurisdiction; and regulatory competition between state and federal level, causing increasing deregulation of banking.

States dominated banking regulation through the 19th and well into the 20th century. This state-governed banking regulation led to different regulatory frameworks in different states, as regulations were adapted to the economic structure in the region. Bank establishment was freer in the industrial north than in the agrarian south (Calomiris 2000:45). Small local unit banks dominated and branching was not widespread, mostly due to discretionary actions taken by state regulators (Calomiris 2000:47). Unit bankers fought hard to resist the threat from branch banking and to capture regulation. As unit banks were beneficial for local authorities and businessmen, these would pressure their elective representatives to oppose branch banking. Since the American system is built on personal elections, the ability to punish representatives doing a poor job is high and this mechanism might explain the persistent restrictions against branch banking. Calomiris (2000:68) shows that special interests dictated much of the regulation of banking organization. Demand for capital grew larger during the late 1800s, but unit bankers were able to prevent laws on opening up for branching as a response to this growing demand. Instead lower capital requirements were promoted to increase number of unit banks (White 1982:35).

The federal government's constitutional rights to charter banks were highly controversial and states saw chartering as a useful tool in order to achieve specific objectives (Calomiris 2000:44). However, from 1864 the federal government emerged as a substantial actor in American bank regulation. From a quite restrictive point of departure the period leading to 1929 was characterized by intense regulatory competition between state and federal level, leading to gradual deregulation of banks (White 1982:35). This is illustrated with the establishment of the Federal Reserve System in 1913. Due to the reduced reserve

requirements and restrictions on real estate loans, banks were attracted to the federal charter. In response, two years later, fifteen states had lowered their requirements. Federal Reserve requirements were lowered both in 1917 and 1921 and by 1928, twelve states had followed suit and reduced banking requirements (White 1982:36). With the exception of regulations on branch banking, both state and federal chartered banks faced liberal regulatory frameworks in the late 1920s. Small unit banks with little cooperation and backing from other banks in addition to low capital and reserve requirements created a fragile system. If banks were subject to a bank run, it would have little liquidity, and no backing from the branch or other cooperative structures to keep floating. The rivalry between the federal and the state level in gradually lowering regulation is quite important in this respect (White 1982:37). In addition to the gold inflows from abroad, Friedman and Schwartz (1963:198) attribute the doubling of the money stock between 1914 and 1917 to the internal dynamic of the banking market.

From the National Banking Act of 1864, there was no explicit opening for diversification of bank business, however there were loopholes in the law making banks able to perform diverse activities as long as law did not prohibit these. In the aftermath of the McFadden Act of 1927, national banks were given legal authority to sell bonds. Between 1927 and 1930, commercial banks increased their bonds issuing from 22% to 44,6% of all bond issuing, declining the role of private investment banking houses (White 1986:37). From 1919 a merger boom was taking place in American banking. Economies of scale and possibilities of taking part in the stock market boom were important reasons for this movement. In addition, the merger wave made banks attract the necessary talent to diversify their business as the new banking acts made possible (White 1985:289). This merger boom was only possible due to the Act of November 7, 1918 and the McFadden Act. These acts created the framework for consolidation between national banks and state banks (White 1985:288). In the aftermath of the Federal Reserve act, state regulations were made in order to allow for branching and to make it more attractive to operate under state regulation for banks. The McFadden Act was passed mainly to regain federal competitiveness and to regain attractiveness for national banks (Pollard et. al 1988:22). When banking regulation allowed banks to undertake any trust activity, banks exploited this opportunity and issued bonds and bought stocks, which they held for speculative rise (Friedman and Schwartz 1963:245). In addition, the amount of call loans, loans with securities as collateral, rose dramatically in the period leading up to 1929. In the early 20s they accounted for between one and one and a half billion dollars, in

the end on 1927 almost 3.5 billion dollars. By the November 1st 1928, the amount had reached 5 billion dollars (Galbraith 1975:49).

Central bank regulation and operation

Central bank history in the United States is relatively short. The Federal Reserve Act in 1913 was established to create a centralized authority to deal with cooperation between banks; to provide an elastic currency to deal with short-term money fluctuations; and, to provide interstate convertible notes (Welton and Crennan 1922:ix; Friedman and Schwartz 1963:189). The system contained twelve different banks located throughout the country, with the Federal Reserve Board at the top. According to Kemmerer (1922:62) there were particularly two important reasons for this organization: One, as the American economy was divided between different regions and different industries, the central bank system had to be able to make regional adjustments to policy. Second, this diversification would reduce the dominance of New York and decentralize and balance decisions concerning monetary policy. The tension between the New York bank and the Federal Reserve Board proved important for policies in the 1920s. Friedman and Schwartz 1963:255) argue that this conflict largely paralyzed monetary operations during the crucial year of 1929. In addition to a conflict of power between the two entities, tension centered on how to conduct monetary policy. In the 1920s the main conflict was on what measures should be applied to contain speculation and growth of credit. While the Federal Reserve Board argued for moral suasion and warned against the increase of the discount rate, the Federal Reserve Bank of New York bank argued that moral suasion would not contain New York bankers from extending credit as long as the discount rate was not altered. These differences were highlighted in both 1920/21 and 1928/29 (Friedman and Schwartz 1963:255).

The early operations of the Federal Reserve was guided by two principles: One, a gold standard principle, letting gold flows determine amount of money in the system, in relation to the international obligations the US had to the fixed exchange rate regime. Second, a "real bills" doctrine adjusting the money stock in relation to the "needs for trade", so that in booming times it was provided more money to make payments, and with little activity, money stock would decrease (Friedman and Schwartz 1963:191). While the first criterion controlling long-term fluctuations, the "real bills" doctrine was made to adjust in the short run.

Before the Federal Reserve System became fully operational, both these criteria had outplayed their role (Friedman and Schwartz 1963:192). The first gold criterion was only

operational as long as the international gold standard was in operation. With the outbreak of WW I in 1914 and the fact that the powers of war left the fixed gold standard, massive gold inflows came to the US to pay for goods. By the end of the war the US had imposed an embargo on gold (Friedman and Schwartz 1963:192). The second criterion was dysfunctional as loans on government securities began to rival commercial paper as collateral for Reserve Bank discounts (Friedman and Schwartz 1963:193). The point is that the changing international context made both criteria irrelevant as guiding principles for the money stock and monetary policy. Policies and decisions were instead taken on the grounds of the judgment of the members of the board (Friedman and Schwartz 1963:193). The Federal Reserve applied a broader set of indicators to guide monetary policy, with the economic development as the most important factor (Federal Reserve Board 1924:38). In the tenth annual report of the Federal Reserve System, the Board gives weight to the banks operation as important for production and consumption of goods (Federal Reserve Board 1924:33). This may be interpreted as an implicit commitment to promoting stable economic growth (Friedman and Schwartz 1963:291).

From July 1921 to August 1929, money stock rose 45%, indicating an expansive monetary policy (Friedman and Schwartz 1963:274). The new money was invested in stocks or lent to others for investments on the stock market (Galbraith 1975:39). As the stock market boom progressed during the 1920s, the ambiguity of goals strained the operation of the system. Was the goal stable economic growth or to contain the stock market boom? Friedman and Schwartz (1963:291) argue that the system followed a policy "too easy to break the speculative boom, yet too tight to promote healthy economic growth." The operation and goals of the Federal Reserve did not become easier by the international pressure put on the institution either. When reestablishing the gold standard, the British pegged pound at a too high rate. This led to large inflows of gold to the US from Europe created pressure on American monetary authorities from France, UK and Germany to ease monetary policy (Galbraith 1975:38). In both 1924 and 1927, the Federal Reserve Bank of New York made open market purchases and lowered discount rates to respond to the international pressure and to establish and maintain the interwar gold standard (Hetzel 2008:16). However, by reducing the discount rate under periods of economic growth the operations of the Federal Reserve fueled stock market speculation. Then, in 1928 concerns in the New York Fed had become so substantial that they decided to contain the stock market speculation. Between

May 1928 and August 1929 they therefore raised the discount rate from 3.5% to 6% (Hetzel 2008:17).

Between 1929 and March 1933 the money stock was reduced by a third (Hetzel 2008:17). The main point in Friedman and Schwartz's analysis of the Federal Reserve's role in the Great Contraction is that this was a major source of the severity of the economic downturn and the bank failures that followed. The failure to have established mechanisms for stabilization of banks and to provide deposit insurance forced banks to liquidate when put under pressure (Friedman and Schwartz 1963:355).

4.3.2 Economic system

Financial relations

American corporate structure and the ties between finance and business were characterized by contractual and distanced relationships. Already from the Sherman Act in 1890, antitrust measures had been high on the government's agenda in the US. Strong antitrust legislation made small firms integrate either horizontally or vertically to be able to withstand competition from other firms (Hollingsworth 1991:39). Big companies were established to take advantage of scale and scope (Chandler 1990), and these needed large amounts of funding to expand further. The banking structure in the US was ill suited for this kind of financing with its small state unit banks (Calomiris 2000:48). Business needed to seek external financing, and demand for commercial loans declined (White 1985:288). In order to maintain earnings, banks therefore needed to seek other profit opportunities and found them in trust and investment banking.

In the first years of the 20th century, investment banks played an important role in financing American corporations. One example is the investment bank J. P. Morgan that had strong ties to a number of railway related businesses. The bank had through its close financial relationship with several New York-based commercial banks vast resources available to the railway industry (Hollingsworth 1991:47). Lash and Urry (1987:69) find that the ties between industry, financial relations and banking in the pre-Depression period were characterized by an oligopoly structure where a few large institutions, J. P. Morgan and the John D. Rockefeller respectively, controlled large and vital fractions of the important American industries and financial houses and banks. In 1914, the American authorities limited the role of investment banks by further strengthening anti-trust legislation. The Clayton Antitrust Act prohibited a corporation to acquire the stock of another corporation if this could impede competition in the industry (Hollingsworth 1991:48). As investment banks

like J. P. Morgan were exposed to large fractions of an industry, this would have consequences and further increase the role of the stock market. Hollingsworth (1991:48) states that the focus on short-term gains, that largely characterizes the American capitalism origins from these institutional arrangements.

Alfred Chandler (1990:79) finds that the most important evolution in the creation of the modern industrial enterprise between 1880 and 1930 was the merger movement. Mergers were undertaken to nationalize firms and to take advantage of the profit opportunities in scale and scope. Investment banks and other financial institutions did play a role in financing these mergers and as a consequence representatives from finance were placed in the boardrooms of industrial firms for the first time. Corporate financing came from the stock market, private investors and investment banking, before the turn of the century; this especially applied to railroad financing (Chandler 1990:58). Banks were exposed to the stock market through the their role in investment banking and by having collateralized loans. When the stock market plunged, the security of these loans vanished.

State role in economy

The American government played an important role in the economic development of the country. When analyzing the American governmental approach, there are several key actors (Lindberg and Campbell 1991:357): the federal government, the respective state governments and courts and judges by their interpretation of laws and in establishing precedence in cases concerning economic development.

In the first decades of the 20th century, the development of the Progressive Era characterized the American state approach (Lash and Urry 1987:73). This era was characterized by attempts to curb the monopolistic features of the big-firm capitalism and to build down the monopoly structures in society. Lindberg and Campbell (1991:359) find that from the 1910-1930, the Supreme Court made a number of decisions in defense for efficiency and *laissez-faire*. Contrary to what may have been the reasoning behind the antitrust legislation the development of the big-firm capitalism and merger movement has been credited to these antitrust actions. As cooperation became illegal, a number of businesses that fought for their survival merged in order to be able to cooperate (Lash and Urry 1987; Lindberg and Campbell 1991). The competitive and antimonopoly behavior was one important part of the governmental approach.

In contrast to this market liberalism and *laissez-faire* approach, Lindberg and Campbell (1991:364) highlights the interventionist and active state on some key projects and

industries. In developing railway and mass-production industries, state intervention contributed substantially. The result was great concentration of power in a few big firms. This development has been especially pronounced in the build-up to both world wars. Industries and firms especially mentioned are General Motors, Ford, Alcoa, US Steel and the aircraft, shipbuilding, and electronics industries. The underlying approach of the state seems to be the free-market capitalism and a governmental *laissez-faire* approach. However, in industries and times that are "important enough", interventionist actions are taken by the state and cooperative measures between the state and big firms are undertaken. The build-up of the big-firm capitalism, especially around the build-up to the world wars illustrates this development.

Faced with the economic difficulties in 1930, President Hoover's initial response was a no-business response, letting the economy stabilize itself (Galbraith 1975:160). What happened at the turn of the decade was increasing governmental debt as taxes declined and government spending grew. Hoover's response was to try to establish renewed confidence in the system through balancing the state budget (Blyth 2002:53). The tax increase of $900 million in December 1931 only worsened the situation.

4.3.3 National economic context

From the end of the contraction in June 1921 until the next peak May 1923, the national product in constant prices rose by 23%. It was a booming period and all arrows pointed upwards. From 1923 until 1929, the economy was dominated by relatively steady growth, however, interrupted by a couple of mild recessions in May 1923 until 1924 and from October 1926 to November 1927 (Friedman and Schwartz 1963:241)

As the American economy was growing and exports grew substantially, the economic outlook was optimistic. As President Calvin Coolidge stated in the state of the Union-address to Congress in December 1928:

> No Congress of the United States ever assembled on surveying the state of the Union, has met with a more pleasing prospect than that which appears at the present time. In the domestic field there is tranquility and contentment... and the highest record of years of prosperity. In the foreign field there is peace, the goodwill that comes from mutual understanding...
>
> (Galbraith 1975:30)

The country had come out of the world war as the dominant industrial country and while reconstruction dominated in Europe, American trade reached new heights. During the war,

the United States went from being a net debtor to a net creditor on balance of payments and from 1923 to 1928 balance of trade grew from $79.37 million to 1.448 billion (U.S Bureau of Census 1949:242,244).

President Coolidge's quote reveals no fear that the good times would come to an abrupt end one year later. The first indicator to fall was balance of trade, which went from $1.448 billion in 1928 to $686.04 million in 1929. The New York Stock Exchange saw an incredible fall and prospects changed from good to bad as the realities of the economic boom in the 1920s had to be faced. Several factors may illustrate the impact on the economy. One thing is the GNP, which decreased from $103 billion in 1929 to $55.8 in 1933. The Manhattan value of land and buildings, in the eye of the storm so to speak, also provides a dramatic illustration of the economic development to come in the aftermath of the crash. From 1922 to 1930 the land value had increased from $7.7 billion to $16.5 billion. When the stock market plummeted and the economy stopped, value decreased to 9.6 in 1933 (U.S. Bureau of Census 1949:11,12). As we see, the economic conditions went from very good to bad in a short period of time.

4.3.4 Institutional interaction

> The high prosperity of the twenties and the spreading belief in a new era understandably led to an increasingly optimistic evaluation of the prospects of repayment and hence to an increasing readiness to lend on a given project or collateral.
>
> (Friedman and Schwartz 1963:247)

This quote from Friedman and Schwartz reveals something of the underlying belief in prosperity in the 1920s. I argue that the banking system, the operation of the central bank and the financial relations of American industry all contributed to the severe banking crisis and prolonged the economic crisis in the country. While the speculative environment prevailed, none of the institutional structures present in the economy reduced speculative pressure. Instead credit was extended and the institutional structure fueled the economic boom.

The strict competition between the jurisdictional levels (state versus federal) seems to be the main factor for the lax regulatory banking regime in the 1920s. This created a regulatory "race to the bottom". Together with the strict regulation against branching and interstate banks, this formed a banking system containing small and weak banks with little resistance to endure pressure. A result of the small and fragmented banking system was that the big-

firm capitalism that evolved after the Civil War was forced to raise funds for investments from other sources than bank borrowing. In combination with several antitrust laws, this made the big firms' dependence on the stock market crucial. At the same time, banks had increased their exposure to the volatile stock market through undertaking investment banking activities and by extending collateralized loans. When the stock market crashed, this had severe consequences for the American business society. This affected individuals and corporations ability to pay their debt to banks. The weak banks and their low ability to deal with failing loans made them especially vulnerable to economic downturn. Credit was easy and money was lent to invest in the booming stock market. These borrowers were especially exposed to falls in the stock market, and their lenders suffered the same destiny.

The actions of the Federal Reserve also deserve scrutiny. As the policy goals were not explicit and the banks action to contain the stock market boom was too little, too late, the boom was allowed to continue and a soft landing proved illusive. The tightening actions that eventually came in 1928 had unexpected consequences as the interest-rate increases of the Federal Reserve reduced exports through the sharp reduction in American foreign lending.

In addition, this interest rate increase revealed the unsustainable structure of credit expansion in the late 20s. When the instabilities first materialized, the Federal Reserve response was inadequate to uphold the money stock and the government approach of "hands-off" policies prolonged and intensified these problems.

5. Banking Crises in Japan and the United States in the 1980s and 90s

Both crises analyzed in the previous chapter had substantial impact on financial and economic policy development in the early postwar period. Lessons from the Great Depression were extensive and regulations were set to avoid this from ever happening again. Even so, the last quarter of the 20th century banking crises reemerge with substantial force. In this chapter I will analyze the institutional and economic development in the United States and Japan in the period leading up to banking crises in the 1980s and 90s. I start by analyzing the international institutions and structures and continue with analyzing the domestic structures in the two countries, beginning with the United States. Each nation-specific section is concluded with a discussion of the institutional interaction leading to banking crisis.

5.1 International Institutional Context 1970-1992

5.1.1 International monetary cooperation

Concerning monetary cooperation, the period between the 1950s and early 1970s was characterized by the Bretton Woods system. Bretton Woods refers to an international agreement among the WWⅡ allied partners reached in Bretton Woods, New Hampshire in 1944, on the international economic post-war system. This system was based on an indirect gold standard, where the dominant currency, the US dollar would be convertible into gold ($35 per ounce) and where other currencies would be convertible into dollar. Barry Eichengreen (1998:91) points to three distinctive differences between the interwar gold standard and the Bretton Woods System: the pegged exchange rate became adjustable in order to make the system more flexible and able to correct large misalignments of the currencies; Capital controls were permitted to make governments able to pursue other economic goals using monetary policy; and, the International Monetary Fund (IMF) was established to monitor and extend help to countries with balance-of-payment problems. Helleiner (1994:27) finds that the Bretton Woods system represented a new school of thought compared to the liberal *laissez-faire* approach that had governed the financial world in the prewar and pre-Depression period. Capital controls emerged as an important permanent tool, contrary to the ad hoc application that was found in previous periods. The two draftsmen of the Bretton Woods agreement, the American Harry Dexter White and the

British John Maynard Keynes found that the most important justification for capital controls was to restrain capital movements from disrupting "the political autonomy of the new interventionist welfare state" (Helleiner 1994:33).

However, already from 1960 the dollar's gold convertibility was questioned as the US foreign monetary liabilities exceeded the US gold reserves (Eichengreen 1998:116). From this point on and until the closing of the gold window in 1971, several stabilizing operations were initiated to save the system. Once convertibility of the dollar was in real jeopardy, there would be a rush towards cashing in dollars and the system would break. As European economies recovered from the war, the monetary system was presumed to become more symmetric. The dollar, however, solidified its role in the beginning of the 1960s as the dominant reserve currency (Eichengreen 1998:115). This monetary hegemony made US monetary authorities able to extend dollar into the market with no real consequences as long as no one sought to convert their dollar reserves. The French with President De Gaulle were those most concerned with the monetary flooding of the dollar. Hetzel (2008:100) argues that this American inflationary monetary policy in the 60s and early 70s finally destroyed the system.

In the late 60s and 70s, flows of dollar went to Europe and Japan, and this created a growing problem for American authorities. Capital controls became increasingly more difficult to sustain as world trade intensified and technological change accelerated. The key problem of the Bretton Woods system has been termed the Triffin Dilemma, after the economist Robert Triffin: The system was dependent on dollar for liquidity in the system, at the same time as the system was based on dollar-convertibility into gold (Gilpin 1987:145). In order to provide liquidity, the US ran current account deficits. In order to uphold convertibility balance was needed, in order to preserve world economic growth, liquidity was needed; hence, the system was unsustainable. When Germany experienced massive inflows from dollar in spring 1971 they let the deutsche mark float upward. As rumors went that the British and the French were planning to convert dollars into gold, President Nixon closed the gold window on August 13 1971 (Eichengreen 1998:133).

In the aftermath of this, attempts were made to restore the system with devaluations of the dollar. These were unsuccessful and from 1973 both the dollar and the Japanese yen floated. As capital mobility restrictions were abandoned, the fixed exchange rate had to be defended by interest rates and other monetary tools. This limited the extent to which monetary policy could pursue domestic policy goals. When going from fixed to flexible exchange rates, the

belief was that domestic policy would be more autonomous. The problem was that in a growingly interdependent world economy, exchange rates will always matter and the potential gains by improving the relative position of the currency are huge (Gilpin 1987:143). Throughout the 70s and 80s, the US dollar still had a dominant role in the international economy (Gilpin 1987:145). When the US pursued an expansive policy, world inflation increased. A tightening of monetary policy in 1979 increased the global recession after the second OPEC Oil Shock. This led to a serious misalignment of the dollar in the early and mid-1980s. In order stabilize the American economy international cooperation was needed. In 1985 the Plaza Accord between the G-5 finance ministers was agreed upon, committing to the depreciation of dollar (Eichengreen 1998:149,150). This agreement made Japan sell dollars in order to reduce its value. By the second half of 1986 the yen had strengthened 40% against dollar. From a situation were the yen was undervalued, it was now overvalued, and BOJ undertook policies to reduce the currency's value (Cargill et al. 1997:66).

The growing financial globalization increased the need for international regulation on banks. In contrast to this, more and more followed the American lead and liberalized banking operations from the late 1970s (Canova 1995:1326); the result being a "race to the bottom" with international competition in attracting financial businesses. However, American banking failures in the 80s exemplified the importance of capital requirements and regulation for banks ability to withstand pressure. For that reason international bank cooperation was attempted and the Basle Accord with the implementation of risk-based standards were agreed upon in 1988.

5.1.2 International economic and political structure

After WW II, the American hegemony on both military and economic power was obvious. Part of the economic hegemony was the result of wartime destruction of Europe. Robert Gilpin (1987:343) argues that since this situation was artificial and did not reflect the true relative strength between the powers, it created false and high economic expectations in the United States. This would make the economic adaptation to changing economic conditions in the 70s and 80s more difficult.

The Americans took responsibility for the defense of Europe and Japan and making them able to pursue economic development (Gilpin 1987:344). Even though military issues and pressure was not applied during discussions of economic topics in the early postwar era, the

economic system and the American leadership cannot be understood without the military aspect. The American ideological hegemony was chosen as a bulwark towards communism and formed the foundation for American leadership (Keohane 1984:137). This leadership provided three major economic benefits: a stable international monetary system (Bretton Woods); open markets for goods; and, access to oil at stable prices, as American companies had access to Middle East oil (Keohane 1984:139).

As the postwar period progressed, the role of the US and the stability of international economic relations declined. OPEC (Organization of the Oil Producing Countries) was formed in 1960 and their nationalization policy of oil resources declined the role of American firms considerably. The oil-price increase by OPEC in 1973 marked a shift in international political economy. For the first time since WW II foreign authorities undercut the United States (Gilpin 1987:345). At the same time the foundations for the international monetary cooperation had eroded with Nixon's abandonment of the gold convertibility.

From the mid-60s the American economy was subject to intensified pressure as government spending increased drastically. Both military obligations, financing the Vietnam War, and carrying out the Great Society program contributed substantially to this. European and Japanese investments in interest-bearing US government securities helped finance the growing balance-of-payments deficit (Gilpin 1987:136).

In addition, the American economy lost relative power to other developed economies, especially West Germany and Japan. American productivity growth halted and competitiveness decreased during the 70s and 80s. The change materialized in the role the US was able and willing to play on the international arena, by becoming more self-centered in its policies (Gilpin 1987:345). The country's policies towards Japan were an illustrative example. Throughout the early postwar era, Japan pursued economic development with strict regulations and government controls (an elaboration of this follows in the Japanese section of this chapter). The Americans tolerated this system, as it would help Japan recover and grow (Strange 1998:44). As Japan developed and questions were raised if Japan would become a threat to the American economic hegemony, the answer was to apply substantial political pressure for deregulation of Japanese financial markets. An opening up of the Japanese financial market would increase demand for yen, increase its value and thereby decrease Japanese exports; removing interest rate ceilings would make Japanese businesses loose some of its competitive advantage by raising capital costs; and, opening up of the markets would make American financial firms tap into the vast Japanese savings market

(Gilpin 1987:333). Reciprocity was important for the Americans and Europeans, as their markets were open for Japanese financial businesses while the domestic Japanese market was closed for non-Japanese firms (Hall 1998:23) As well, Japan developed into an important contributor to the United States. From 1981, the country became the leading capital exporter in the world and in 1985 Japan had $129.8 billion in net assets abroad (Gilpin 1987:329). While the American's increased their balance-of-payments deficit with Reagan's increased military spending and tax cuts, foreign borrowing became an essential source of capital in order to avoid recession (Helleiner 1994:147).

5.2 Banking Crisis in the United States in the 1980s

The 1980s was a dramatic decade for American banking, experiencing unprecedented post-war level of bank failures. Between 1934 and 1973 only 641 US banks failed, while 1617 banks failed between 1980 and 1994, in addition to the growing number of banks in risk of failing (Canova 1995:1300; FDIC 1997:15). The savings and loan (S&L) industry-crisis was part of the financial and bank history of the 80s. The S&L business evolved from the 1930s due to special federal regulation encouraging home ownership. This industry was well regulated and developed parallel to commercial banking. In the 1980s, it faced severe economic challenges as it met unprecedented high interest rates, the result being growing numbers of debt defaults and S&L failures. Between 1980-82 118 S&Ls failed and throughout the decade 563 failed. In the previous forty-five years only 143 had failed (FDIC 1997:168,169).

Concerning commercial banks, Boyd and Gertler (1994) find that large banks were more prone to failures in this period. Banks in states facing severe economic downturns, real estate related downturns and agricultural recessions were more likely to experience failure (FDIC 1997:16). In this chapter I will explain the bank failures as a combination of several factors and institutional features. That some states face economic downturn should not alone be a reason for bank failure without an institutional environment creating fragile banks. Both Canova (1995:1328) and Calomiris (2000:341) emphasize the failure of the large Chicago-based bank Continental Illinois in 1984 as a milestone for the bank failures in the period. This was the United States' seventh largest bank, and was argued to be "too big to fail".

5.2.1 *Banking*

Commercial banking regulation

In the aftermath of the Great Depression, New Deal-policies with heavy regulated banking and financial market operations was applied. As a consequence of the free banking in the lead up to 1929, the New Deal policy applied by Franklin D. Roosevelt to a large extent regulated and discouraged unrestrained banking competition. The Emergency Banking Act in 1933 prohibited payments of interest on checking accounts, raised the minimum capital requirements in federally chartered banks, which had been lowered numerous times in the pre-1929 period, and set the stage for the Federal Reserve Board to implement Regulation Q (Canova 1995:1298). Regulation Q, the financial regulatory framework in post-war America, was characterized by an institutional setting limiting competition among banks by applying interest ceilings on time deposits. Canova (1995:1995) argues that these ceilings were an important source of the banking stability in the post-war era. Due to regulation there was little competition between banks and other financial institutions in attracting finance and banking could be built on sound fundamentals. This system made banks able to extend credit without raising interest rates on loans thus providing a good economic environment for investments. As bankers and financial institutions tried to get around regulation, the role of strict supervision and monitoring of bank behavior was deemed important (Canova 1995:1303).

Deregulation in the 70s and 80s

As market interest rates increased substantially above the regulation Q ceilings from the late 60s, banks lost competitive power to other financial funds and institutions; in particular the S&L industry. As these entities faced severe problems during the high interest rate-period in the early 80s, the regulatory response was to deregulate the industry and to extend its ability to diversify business and compete with commercial banks (FDIC 1997:173,175). Large influxes of deposits fueled the S&L system and decreased funds to commercial banking business (FDIC 1997:178). The result was heavy bank pressure to deregulate post-Depression banking restrictions. As pressure became extensive and more factors contributed to the justification of deregulation, interest rate ceilings were gradually lifted. In 1973 the process started by lifting the interest rate ceiling on certificate of deposits (CD) of more than $100 000 (Canova 1995:1305).

The regulatory competition between states and the federal government emphasized in the lead-up to 1929 still existed with states undermining the national regulatory framework and

pushing for deregulation faster than the federal state. In addition, international tax havens and the growing internationalization of capital movements intensified this "race to the bottom" (Canova 1995:1307). At the end of President Carter's and in the beginning of President Reagan's period in office, deregulation of the interest rate ceilings was abandoned all together. This marked the beginning of the first period since 1933 when American banks were free from price restrictions and allowed to compete freely on markets for deposits (Canova 1995:1320).

At the same time as the banking system was deregulated, the federal deposit insurance was strengthened (Canova 1995:1327). Less regulation, more risk taking and better insurance against failure through governmental rescue plans characterized the new banking system. Competition to make loans and attract deposits was so fierce that credit standards slipped and risk increased. When fragility in the financial system revealed itself, especially with the failure of the Continental Illinois in 1984, the government felt obliged to carry out a rescue operation. The bank was found to be "too big to fail". During the 80s, big banks tended to operate with lower buffers against potential losses, something that suggest higher risk taking and a belief that the government would come to the rescue in case of trouble. Boyd and Gertler (1994) finds that the too-big-to-fail policy that was initiated and later became a guarantee for all big banks were one of the key factors behind the banking crisis in the 80s. Canova (1995:1333) argues that the risks taken by large banks and financial institutions were socialized with the too-big-to-fail policy and eliminating the cost of failure for the banks. Thus, the deregulated banking system faced major moral hazard issues.

Supervision and monitoring was performed by three distinct federal entities: the Office of the Comptroller of the Currency: the Federal Reserve System and the Federal Deposit Insurance Corporation (FDIC). In addition, state-chartered banks are monitored by state agencies. Hall (1993:53) finds that the quality of state regulation may have been variable. In addition state authorities tend to allow for a wider set of activities for banks to take part in undermining parts of the federal regulatory framework.

Central Bank regulation and operation

The post-WWⅡ monetary polices applied by the Federal Reserve was a mixed approach with mixed goals and changing views of the appropriateness of the tool. Hetzel (2008:37) argues that the post-war understanding of monetary policy was that it was inadequate in controlling inflation. Instead interest rate policy was used in stabilizing the banking system. The post-Depression financial system relied on the Federal Reserve as market-regulator and

lender of last resort. In order for the system of interest rate ceilings to function properly, the Federal Reserve needed to maintain a low market interest rate. If market interest rates became too high, depositors would switch to other funds than time deposits in banks. This was achieved by pegging the interest rate level (Canova 1995:1300). The commitment to uphold the regulatory framework was credible, although short-lived. Soon after the WW II, private and commercial interests became more important for Federal Reserve Policy and from 1951 they abandoned the pegging of market interest rate below the Regulation Q ceilings (Canova 1995:1302). Hetzel (2008:55) emphasizes the changing understanding of the role monetary policy could play in controlling inflation. He finds that from the 1950s, the Federal Reserve more explicitly focus on providing stable economic growth.

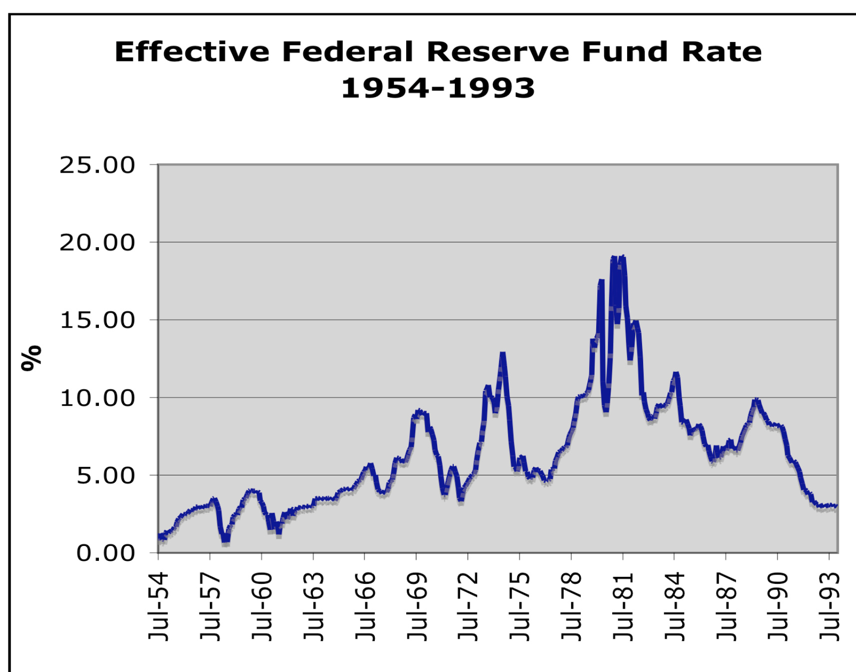

Figure 5-1 Federal Fund Rate 1954-1993 (Federal Reserve Bank of St. Louis 2010)

In the early 1970s, monetary policy was perceived as a tool for controlling aggregate demand while inflation was perceived to be caused by non-monetary effects (Hetzel 2008:119). As Carter took office and implemented his expansionary policy, inflation grew. With the introduction of Paul Volcker as Chairman of the Federal Reserve the focus of the Bank changed to a credible commitment to bringing the inflation rate down. Hetzel (2008:127) emphasize that once again the tide had turned and monetary policy was now regarded to be an important measure for controlling inflation. In 1981 the market interest rate therefore reached 18.87% in order to curb the substantial inflationary pressure (Canova

1995:1310). This way monetary policy switched from being a tool stabilizing the banking and financial market to be the most important tool for managing inflation. Volcker set a new standard for monetary policy with his pursuit for low and stable inflation (Hetzel 2008:163). Figure 5-1 shows how the effective Federal Reserve Fund rate has developed since 1954. We can see that when Paul Volcker took over as Chairman for the Federal Reserve in autumn 1979, there was a marked change in interest rate to drive the American inflation down.

5.2.2 Economic system

Financial relations

American businesses in the post-war era were to little degree dependent on commercial banks and bank borrowing in funding their activities. Except between 1970 and 1974 bank borrowing count for less than 20% of the funding of non-financial corporations. The main source of funds has been internal financing, in the 1970s counting for more than 75%, while securities counted for between 8% and 18% of funding until 1984 (Aoki et al. 1994:37). In this respect, the system resembled the pre-Depression system. One major difference however, is the regulation on commercial banking in undertaking investment and trust banking activities. In the build-up to the banking crisis in 1929, the tight relationship between investment banking and commercial banking, often conducted within the same financial house was pronounced. As this close connection was given blame for the crisis, the Glass-Steagall Act separating commercial banking from securities business was implemented in 1933 (White 1986:37). Together with the Bank Holding Company Act in 1956 this greatly limited commercial banks ability to perform actions concerning securities, insurance, and other financial activities (Barth et al. 2000:193). The consequence was that even though trusts and investment banks had great influence on American business, commercial banks were kept out. These aspects of the banking and financial regulation was not repealed until 1999 (Barth et al. 2000:191). Kotz (1978:97,102) shows that big trust banks (exemplified with Lehmann Brothers, Goldman Sachs and Company and the Morgan Group from New York) had both financial and ownership control in the big businesses in the US. In the late 60s, these banks had financial control in 34.5% (full or partial) and ownership control in 21.5% (full or partial) of the 200 largest American companies.

Even though commercial and industrial lending have never been as important in the United States as in Japan, between 1952 and 1973 shares of these loans were fairly stable. However, in the 70s and 80s, as other funds became more attractive due to opening up to foreign borrowing and increased diversity in commercial papers, the share of commercial and

industrial loans declined substantially. To counter this bank lending increased its share in the mortgage market. Boyd and Gertler (1994) emphasize that this increased banks' exposure to riskier and less liquid assets.

State role in economy

Mark Blyth (2002) shows how the interpretation of the economy and economic theory changed the state approach, from a conservative "financial soundness"-approach to an interventionist growth enhancing approach, before retuning to the economic soundness and stability approach. As well, major events like the Vietnam War and other sources of government obligations have been important in forming and changing the state role.

In the aftermath of WW II economic councils were developed to increase cooperation to reach economic targets. Cooperative measures between labor and business were initiated in order to get a joint understanding of the economic challenges and to find the tools necessary to reach economic goals. The leading business institution, the Committee for Economic Development (CED) highlighted the importance of the state's role in providing a good and stable business environment. The first president of CED, Ronald Deupree was clear that the challenges facing American businesses could not be met by *laissez-faire* policies. When faced with the opposing goals of decreasing national debt or maintaining high employment and production, the state should focus on employment and production, the committee argued (Blyth 2002:91). The result was a limited Keynes-inspired approach to economic growth where countercyclical tax policy was to be applied in order to maintain sustainable economic growth. Blyth (2002:94) argues that these arrangements and institutional features stabilized the economy and created a stable coalition between business, labor and the state in their common pursuit of economic growth. This coalition and joint approach to the economy lasted for roughly twenty years, until the changing economic context of the 70s.

Throughout the 60s, the American federal state extended its regulatory regime and business perceived this to be a violation of the embedded liberalism from the 50s. From the mid-70s there was therefore a surge for a changing institutional structure of the state/business relationship and reduction of the regulatory role pursued by the state (Blyth 2002). Increased governmental spending was in part a result of Lyndon Johnson's Great Society program, extending the American welfare state (French 1197:32). Protests and opposition grew as the economy experienced distress and with the election of Ronald Reagan as President in 1980, the proponents of *laissez-faire* and free market capitalism were able to place one of their own in the White House. In recovering from the economic downturn in

late 70s, Reagan proposed a plan built on a severe cut in federal spending, reducing governmental regulations on investments, cutting taxes and applying a monetary policy built on monetarism (Blyth 2002:173). The embeddedness and cooperative features of the post-war economy was now dissolved and the role of the government returned to a *laissez-faire* approach applying ad hoc measures when needed.

5.2.3 National economic context

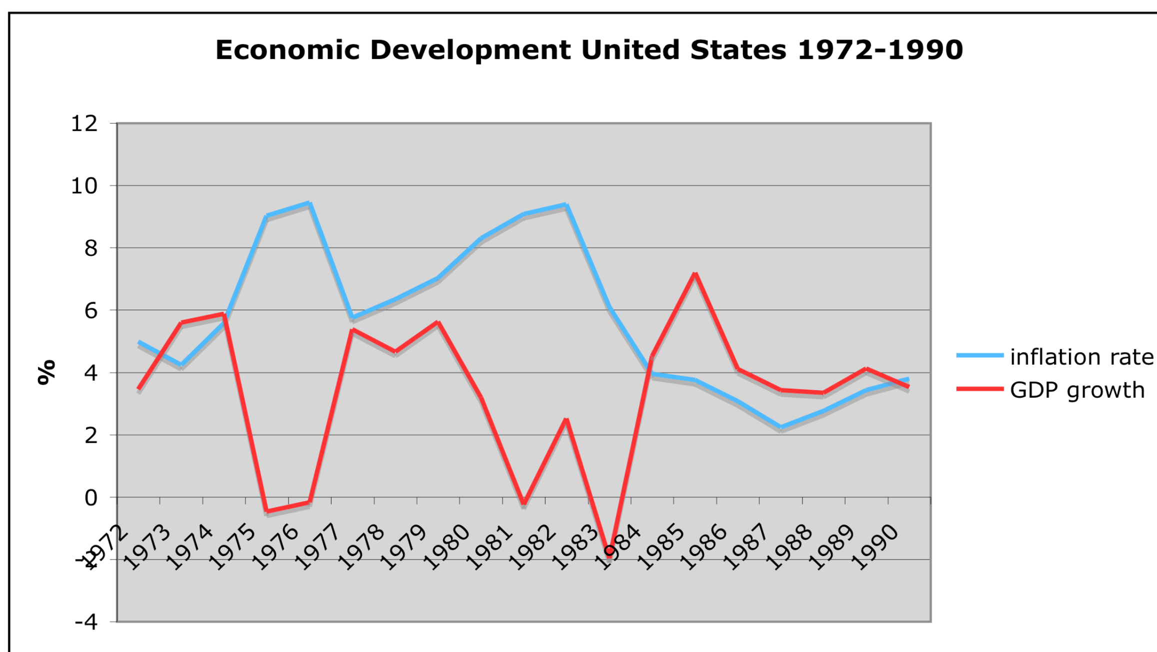

Figure 5-2 Economic development the United States (World Bank 2009)

The 1970s and 80s were troublesome for the American economy. Even if figure 5-2 shows good economic growth for large parts of the period between 1972 and 1990, other underlying conditions were deteriorating. Government spending in the Vietnam War and increased welfare spending through President Johnson's Great Society Program were paid for by printing dollars; Nixon economic stimulation package were paid for in the same way; and, Reagan's increased military spending and tax cuts were paid for through foreign borrowing, especially from Japan (Gilpin 1987:248). The result was that throughout the 1980s the US government ran a substantial budget deficit and inflation pressure increased in the late 70s and early 80s. An illustrative example of the early government approach to this problem is found from the early presidency of Lyndon Johnson: the economy began to show signs of trouble. Unemployment had fallen to 5% and the budget was in surplus, but increasing inflation pressure created potential future problems. Johnson refused to raise taxes or the discount rate (Blyth 2002:130). From this it seems like the American's were living an

unsustainable life for a long period of time. The system was only floating as long as the US creditors believed they would get their money some time in the future. As matters became more severe, Paul Volcker was instated as Chairman of the Federal Reserve, committing to bringing inflation down.

The late 70s and early 80s also saw a substantial commercial real estate building boom. Browne and Case (1992) finds that this boom was fueled by several factors; tax decreases and credit availability being among the most important. However, this construction boom was too extensive and from the mid 80s, the vacancy rate was increased to both 15% and 20% in many metropolitan areas, leading to extensive price falls, increasing debt default.

5.2.4 Institutional interaction

As seen in this chapter, institutional changes in both the overall economy and in banking and finance characterized the 1970s and 80s. In banking there was a sustained and increased pressure for liberalization. The overall assessment of the time-period is that when some of the institutional settings forming and controlling the economy is changed, this will affect other parts of the economic structure and create unintended consequences.

As explained, one of the key features of the early post-war financial system was the deliberate low Federal Fund Rate. This made banks able to attract funds even though they faced deposit interest ceilings. The deposit interest rate ceilings were important in limiting competition and stabilizing the banking market. As the concerns of the Federal Reserve changed to economic growth and overall economic stability, banks and saving deposits could no longer rely on a low market interest rate. When the Federal Funds Rate began to rise markedly from the mid 60s, bank deposits became less attractive for depositors and banks started their push for deregulation. As interest rates became more volatile and the peaks became higher and higher during the 70s and 80s, pressure for deregulation only increased.

From the international banking arena, capital movement restrictions were cut back and international financial competition increased, as businesses were able to loan money from foreign financial institutions. This growing competition further increased pressure on commercial banks and their desire for deregulation. In addition, competition at the domestic level increased; both by a growing market for commercial papers and other financial innovations and intensified competition from other financial businesses. The liberalization of the S&L industry in the early 80s made commercial banks and S&Ls compete on the same

market without facing the same regulation, reducing profits and increasing risk and vulnerability in the system.

The growing market for commercial papers became more attractive for businesses than bank borrowing. The result was that banks needed to change their customer base and made banks increase their share in the commercial real estate market. As this market was more instable and fragile than business lending, banks became more exposed to risk through fluctuations in the real estate market. The growing competition with S&Ls in the mid to late 80s further enhanced these problems, as there was tough competition to attract borrowers in this market. This competition caused too risky lending and loans with inadequate collateral.

In addition, the dominant economic theory changed from the postwar embedded liberalism to liberalism especially pronounced by Ronald Reagan. Increased government spending and debt combined with economic downturn in the late 70s laid the foundation for this shift. Together these factors made regulatory authorities deregulate banking market, lowering requirements and extending banks' possibilities to diversify their business. At the same time as regulation declined, the government's commitment to rescuing banks in trouble increased. This especially ensured big banks as the too-big-to-fail policy became more pronounced from the failure of the Continental Illinois in 1984. Big banks were especially prone to failure in this period, something Boyd and Gertler (1994) subscribe to the too-big-too-fail-policy. In this period big banks had an especially high share of lending to capital, making them vulnerable to failing loans. Deregulation combined with deposit and rescue-operations created perverse incentives and potential moral hazard situations. However, the economic downturn in the period did not become severe. This might be attributed to the governmental rescue operations. This way panic did not become substantial and instabilities was in large contained in the financial sector.

5.3 Banking Crisis in Japan 1992

The banking crisis starting in Japan 1992 initiated a great slump in the Japanese economy. From an astonishing economic development since the 1945, the country experienced prolonged economic downturn in the 1990s. The 1980s were characterized by substantial asset price inflation. After reaching its peak in 1989, the stock market index fell by over 60% in the next three years (Stone and Ziemba 1993:149). This development substantially increased the share of bad loans and banks went into crisis. However, exact figures of the amount of bad debt is difficult to find, Amyx (2004:2) presents figures that suggest that by

1998 bad loans accounted for up to 30% of GDP. The amount of bad loans made banks more reluctant to extend credit and the credit growth rates declined from 1991 and became negative in 1997. Firms dependent on credit were forced to reduce activities, employment was reduced and bankruptcies increased (Werner 2009:14).

5.3.1 Banking

Commercial banking regulation

In the post-war era, Japanese banking system was a key distinctive feature of the Japanese economic system. The system was built on informal ties and networking between firms, banks and regulatory authorities (Amyx 2004:29). In these networks, exchange of information, monitoring and cooperation were keys to the functioning of the system. Competition among banks was limited and a strict regulatory framework was essential in preserving the system. That there only was fifteen different city banks (with a number of affiliates each) operating in Japan from 1953-1991, illustrates this (Aoki et al. 1994:28). The tight regulations coincide with the heyday of post-war Japanese economy, from 1950 until the mid-1970s (Ueda 1994:89). From the mid 70s up until today a substantial liberalization of banking and finance has taken place.

The Japanese banking system was named "the Main Bank System", reflecting that firms, especially the large ones, had its "own" bank (Aoki et al. 1994:3). Being "Main Bank" meant that in addition to providing credit to the firm, the bank played an important role in monitoring the firm and to act as a lender of last resort. Aoki et al. (1994:5) emphasize three main elements of the system: a number of relational ties between firms and its partner bank in information, finance and between managers; a special and reciprocal relationship among major banks, leading to cooperation instead of competition between banks; and, a distinctive relationship between the regulatory authorities - the Ministry of Finance and the BOJ - and the banking industry.

Ownership of banks was to a large extent found in industry. Both close informational ties between regulatory authorities and the banks and substantial tools and resources to carry out supervision, made supervision effective and moral hazard was avoided. In case of irregularities and mismanagement, the Ministry of Finance was capable of replacing the existent bank management often with retired Ministry officials (Aoki et al. 1994:31). This had a disciplining effect on the banks.

Ueda (1994:89,94) emphasizes several features of regulation in banking: the limited competition and severe restrictions to enter into banking; the strict separation of different forms of banking; and no secondary bond market as government bonds issued to banks were not allowed to be resold. From the Securities and Exchange Law in 1948, banks were prohibited from engaging in securities business other than for their own investment purposes. Trading of public bonds was subject to the same restrictions through administrative guidance up until the deregulation period that began in the late 1970s (Hall 1998:5). This also shows both the formal and informal aspects of the bank regulation in Japan.

Deregulation of the Main Bank system

Entering the last quarter of the 20th century, there was a growing belief that the strictly regulated banking system had outplayed its role and that in order for Japan to continue its growth, a liberalization of financial relations was needed. This changed understanding came from both internal pressure within the banking industry, pressure from firms needing more finance than banks were able to supply and international pressure of reciprocity, giving foreign banks the same opportunities as Japanese banks had abroad (Hall 1998).

Hoshi and Kashyap (2001:227) emphasize five major areas of deregulation in this period: bond issuance regulations were liberalized in order for the government and later firms to issue bonds to the commercial market and households; financial innovation creating new products like warrant bonds and commercial papers; liberalization of foreign exchange transactions, making it possible to attract overseas investors; liberalizing interest rates that during the postwar era had been set below market prices; and, stock market regulations were to lesser extent liberalized. These areas changed important fundamentals in the financial market and altered the tight main bank-relationship between banks and firms. While large firms were able to attract new sources of finance, bank operations were not liberalized in the same way. Even after the substantial deregulation of financial markets, regulations facing banks, especially concerned with underwriting and dealing with corporate bonds, still was substantial (Aoki 1994:135).

Even though bond markets were gradually opened for banks, substantial deregulation of banking activities was not carried out until after the 1992-crisis (Hoshi and Kashyap 2001:253). From 1985 foreign banks were allowed to undertake trust business in Japan posing an alternative source of financing for Japanese businesses and intensifying financial market competition (Hall 1998:88). In order to maintain profits banks needed to find other

customers interested in borrowing money. Banks changed their lending business from large corporations to small and medium sized firms. The change was especially pronounced in lending to the real estate industry, where it increased from 6% to 12% of all loans between 1973 and 1992 (Hoshi and Kashyap 2001:287).

When the stock market and later real estate prices declined, a number of banks were severely exposed to these markets and the result was devastating for the banking system. Hall (1998:42) argues that through intensive regulation and supervisory tools, like licensing, monitoring, assessments of capital and liquidity and moral suasion, the Ministry of Finance and BOJ had the necessary tools to supervise the system and contain instabilities. However in the build-up to the 1992-crisis, these tools were not used. Hall asks the question whether the number of supervisors were sufficient or if they were aware of the scale of exposures to the risky markets.

Central bank regulation and operation

The BOJ has been an important policy tool for Japanese authorities, though goals, tools applied and results achieved have changed significantly from the reconstruction and high growth era to the 1970-1992 period. Up until 1971, BOJ was committed to a fixed exchange rate, autonomous monetary policy and strict capital controls. The exchange rate was fixed against US dollars at ¥360 for $1, a rate set artificially low in order for Japan to recover after the war. With the dissolution of Bretton Woods in 1973, the yen was floating. However, due to strict capital controls and regulated interest rate below the market level, the yen was still below market value (Johnson 1995:34,35). With the Foreign Exchange and Trade Control Act, foreign exchange transactions went from prohibited unless explicitly freed, to free unless prohibited (Hoshi and Kashyap 2001:234). This had implications for monetary policy and for financial market operations.

Through an analysis of all official discount rate changes in Japan since 1975 Okabe (1995:343) shows that the most important goal has been overall economic stability (general demand and inflation). His analysis builds on the Bank's official argumentation of policy changes. Since the Plaza Accord in 1985, balance of payments and the exchange rate is found to be important while the actual market interest rates has been a factor since 1989. Since this only shows what the Bank argued, there are potential sources of errors in these findings. For one thing, to be able to show the Americans that Japan kept its part of the Plaza Accord it was important to use this agreement to justify changes in policy. At the same time,

BOJ may have been concerned with keeping the exchange rate low in order to promote Japanese exports.

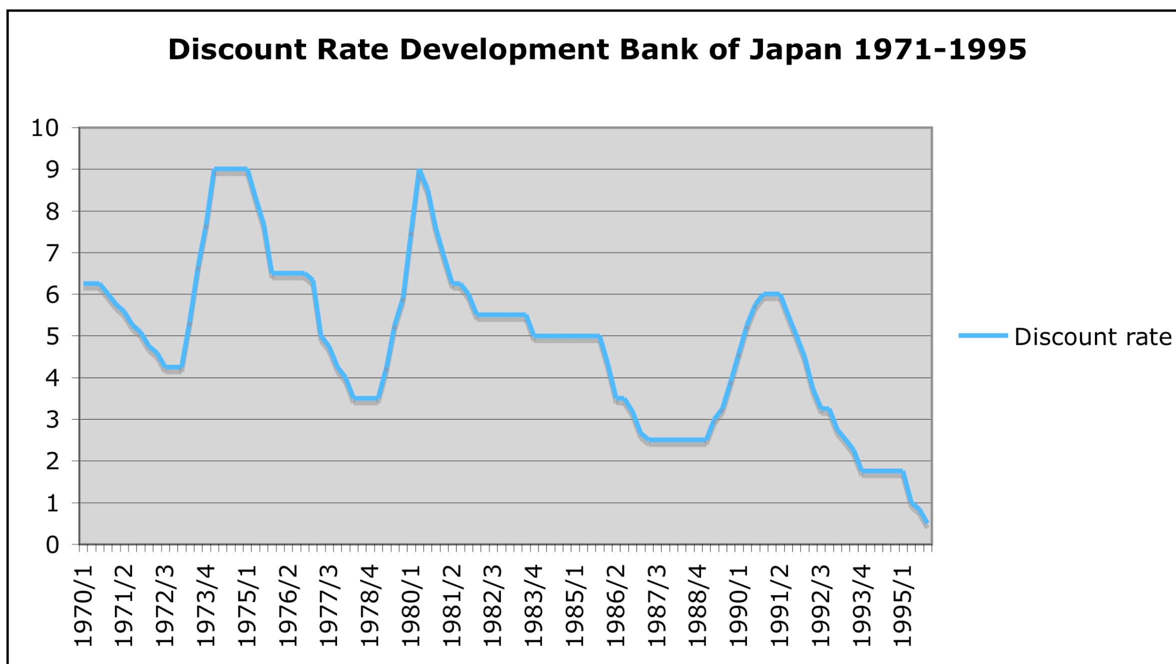

Figure 5-3 Discount rate development Bank of Japan 1971-1995 (Bank of Japan 2010)

Another interesting feature is the effect monetary policy and interest rate policy have on the markets. From the mid 1970s the most important policy tool shifts form direct control and restrictions to a market based interest rate control (Okabe 1995:334). In the 1980s, business and private exposure to market interest rate increased to great extent. In 1989 more than 70% of deposits held by businesses and 20% of individual deposits were exposed to market instead of regulated rates. In 1993 the share was 98.6% and 70% respectively (Okabe 1995:335). When we note that collateral on loans in Japan is usually based on land value and real estate prices exploded in the second half of the 80s making corporations and individuals to borrow more, we understand that the Japanese were vulnerable to discount rate changes by BOJ. As we see from figure 5-3, this increase in interest rate came from the second quarter of 1989 and was raised three percent in the next two years.

Equally important as the tightening of the discount rate, was the expansive monetary policy applied in 1986 and 87. Discount rates were fairly stable from 1981 to 1986 before dropping from 5% to 2.5% in 86-87. This drop followed in the wake of the drastic yen-appreciation in 85-86 as part of the Plaza Accord, with the yen value strengthening 40% in relation to dollar. The yen was now overvalued and BOJ decreased the interest rate substantially to depreciate

the currency and regain competitiveness for Japanese businesses (Cargill 1997:66,113). Domestically this policy fueled the stock market boom and the real-estate bubble. However, as figure 5-4 shows, inflation was low and this would also justify interest rate decrease. What were not taken into account were stock market and real estate prices.

In addition to the monetary policy applied, BOJ's and the Ministry of Finance's role as lender of last resort and guarantor for banks and deposits is a central part of the institutional context in Japan. The postwar system was built on an active approach to deposit guarantees, meaning an interventionist approach including administrative guidance and monitoring by BOJ and Ministry of Finance, active intervention in financial markets and interaction between implicated actors, in addition to explicit deposit-insurance funds. Policy followed was a "no-failure"-policy (Cargill et al. 1997:136). Through this, actions were taken before problems were severe. As part of the system was deregulated and the close connection between actors declined as part of liberalization, moral hazard issues materialized as the guarantee of now failure together with increased opportunities to undertake risky practices increased during the 80s. When banks and financial institutions experienced severe strain in with non-performing loans, regulatory response was delayed (Cargill et al. 1997:140). The real response and rescue to the system came eight years after the stock market fall, at a time when the amount of bad debt had risen to 1 trillion dollar or approximately 30% of GDP. This delayed response is found to be in sharp contrast to earlier Japanese responses to financial instability (Amyx 2004:2,6).

5.3.2 Economic system

Financial relations

The importance of bank funding is illustrated by figures showing that 40% of non-financial corporate funding was from borrowing between 1962 and 1979, more than double the figures in Germany, the UK and the US (Aoki et al. 1994:37). The relationship was further characterized by tight relationships and the main bank system. This system was built around the notion that the main bank was to assume greater responsibility for firms in trouble than other lending institutions. This was a guarantee for other institutions lending to the firm (Aoki 1994:119). Such an arrangement ensured tight monitoring of the firm from the main bank. As the main banks assumed responsibility for "their firms" the financial system was sustainable. In addition to the main bank system, a myriad of formal and informal networks created information and supervision in the Japanese business society. Dense and tight business networks, called *keiretsu*, characterized the Japanese corporate system. The

horizontal *keiretsu* consisted of six financial houses, three of the prewar *zaibatsu* (Mitsui, Mitsubishi, and Sumitomo) and three newer (Sanwa, Dai-ichi Kangyo and Fuji banks) and represented 15% of total corporate assets and 50% of corporate asset sales in Japan (Lincoln et al. 1992:562). One of the most distinguishing characteristics of *keiretsu* is the cross-shareholding. This ensured close reciprocal ties between firms and possibilities for applying pressure and gaining influence over partners and closely related companies (Lincoln et al. 1992:564). Banks were central in these *keiretsu.*

Amyx (2004:29) emphasizes the constant communication these dense networks created between different actors in society and assisted regulators in early detection of instabilities and potential sources of fragility. As will be shown, the dense networking and the close relationships in business lost some of its importance from the mid-70s. As the Japanese society was built on informal supervision and regulation, there was little formal arms-length regulation, and when the informal regulation's role decreased there was no formal regulatory framework to replace it.

In the 1980s, borrowing declined as a source of financing while bond financing increased. As deregulation opened capital markets for large firms, their dependence on bank borrowing declined. The number of firms with zero borrowing from banks may indicate the loosening relationships between banks and firms: from 2.2% in 1975 to 12.8% in 1997 (Hoshi and Kashyap 2001:257). This severely changed the relationship between banks and firms. Main Banks had traditionally had representatives on the boards of firms, however as the reliance on banks declined, banks influence in the boardrooms diminished (Hoshi and Kashyap 2001:259). In addition, corporations previous subject to their main banks regulation and supervision were now given an exit option. The stabilizing characteristic of bank monitoring went out of effect. Monitoring of banks by the Ministry of Finance followed the same informal structure as bank/business-relations. Bank supervision became more costly as information requirements for effective regulation and monitoring became higher (Amyx 2004:32). This would make the banking sector more susceptible to moral hazard and financial instability could be expected to become more frequent. The main bank had opportunities to "punish" bad behavior from firms by replacing management or in other ways apply corrective action on the firm. When bank borrowing declined banks' leverage on firms diminished. This way, liberalization of financial opportunities for large firms in many respects undermined the corporate financial system in Japan. The reduced dependence on

loans also declined the information float between banks and firms, making it more difficult for banks to monitor firm-behavior and to stabilize the financial system.

State role in economy

The role of the state in the postwar period can be understood in the same way as the Japanese state in the 1920s. Through investments, loans, taxation and credit policy the Japanese government played and important role in the development of the economy (Allen 1980:112). In order to describe the functioning of the Japanese state, Chalmers Johnson (1995) develops the term "capitalist developmental state"; describing an economic system that was neither socialism nor fully-fledged capitalism. With a substantial dose of planning, the government was able to dictate where resources were to be distributed, while the market mechanisms and capitalist structures were used as a tool where appropriate. Johnson (1995:67) explains the difference between the capitalist state (exemplified by the US) and Japan: "The American state is legitimated by its processes, whereas the Japanese state is legitimated by its achievements." The tools applied are those assumed most appropriate for the problem at hand. Informal and formal ties between politicians, bureaucrats and businesses were important in order to reach strategic decisions on the long-term development of the country (Ide 1998:56).

Industrial policy was an important pillar of the Japanese state approach. In the reconstruction and high growth period until the first oil crisis, industrial policy was active and interventionist. In the reconstruction period there was a focus on achieving economic independence in building up a production system, to obtain stable and cheap raw materials supply and to encourage exports. During the high-growth era in the 1960s and early 70s, focus was on promoting big industries as chemical and heavy industries. After the oil crisis in 1973 the consensus on industrial policy receded as international criticism for protection and artificial barriers to competition increased. However, since this period, a number of businesses have turned to the government for "adjustment aid", in order to face the new international competition (Komiya 1998:9-10). There were several reasons for the change to a more passive policy: the evolvement of broader policy goals such as high education, good health care and substantial research and development, in addition to the previous economic growth-goal; increased belief in the market mechanisms; and increasing pressure to keep commitments of the GATT-agreement which prohibited protectionist measures (Uekusa 1988). As I understand it, Japanese industrial policy became less pronounced and with that another key characteristic of the post-war Japanese economic system gradually declined its

importance. From the early 80s, the government increased its concern over balancing budgets. After 16 years of deficit, the government finally managed budget surplus in 1991 (Hoshi and Kashyap 2001:267). Despite the crisis, fiscal conservatism continued to dominate the government approach, and may be responsible for the long sluggish period in Japanese economy throughout the 90s.

After WW II, special banks still played an important part in the reconstruction period. However their role was eventually taken over by city banks. In the reconstruction period governmental special banks provided about 50% of the new funding, while in the high growth era the share declined to about one quarter (Aoki 1994:114).

5.3.3 National economic context

Japan has been one of the fastest growing economies in the post war era. Between 1953 and 1973, the countries average growth was 9%, higher than any other country (Amyx 2004:12). As seen in figure 5-4, the years leading up to the 1992-crisis provided more volatility in growth rates, but still there was good economic growth. Japan increased its international financial influence in the early 1980s as the most important capital exporter in the world. In addition, the country ran substantial trade surpluses, reaching $53 billion in 1985 (Gilpin 1987:328).

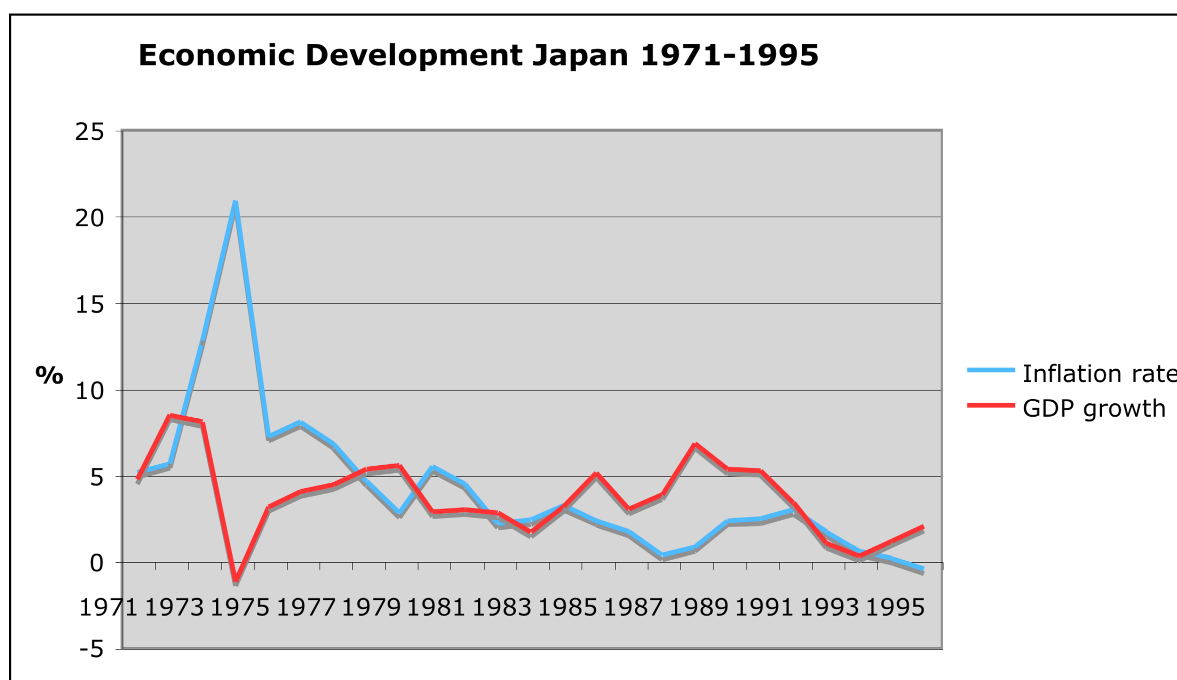

Figure 5-4 Economic development Japan (World Bank 2009)

What really stands out in the economic context in Japan in the 1980s is the asset price-inflation. From 1985 to 1989, prices in stocks and real estate built up in a bubble-like fashion. Cargill et al. (1997:93) finds that these increases have little correlation with real-GDP growth in the period. The Nikkei Stock Index increased 5.7 fold from 1982 to 1989, reaching its peak on ¥38 915 in December 1989, while experiencing a severe fall to ¥14 309 in August 1992, a 63.2% drop from its peak (Kon-Ya 1995:236). Land and stock prices correlated highly in the period (Cargill et al. 1997:92).

The Japanese government had run a deficit for 16 years before reaching balance in 1991. This policy had to be abandoned in order to counter the economic recession the country experienced, however fiscal conservatism still prevailed as the overall policy (Hoshi and Kashyap 2001:267).

5.3.4 Institutional interaction

This analysis of Japan in the 70s and 80s has identified substantial changes in the economic and financial system. The period ended with the most substantial downturn in the Japanese economy since WW Ⅱ. The post-war Japanese system contained institutional structures well fitted together. Close cooperation and interdependence between banks and businesses provided information sharing in close relationships with the authorities. These networks made the government attentive to business challenges and were able to create environments for economic growth and prosperity. By being able to influence business management, main banks were able to supervise and monitor the soundness of business, while banks closely tied to the BOJ and the Ministry of Finance were supervised and controlled by these institutions. The governmental institutions possessed the ability to replace management of banks if the current management misbehaved.

As international political instabilities occurred in the beginning of the 1970s, the Japanese system began to change. Several authors point to both internal and external pressure for reform of the Japanese financial system (Hall 1998; Hoshi and Kashyap 2001; Amyx 2004). As corporations wanted to expand their business and needed more capital; as the United States pressured Japan for reciprocity in treatment of financial institutions; and, as banks wanted to diversify business when corporate borrowers decreased their dependence on banks, liberalization of the strict regulation was found to be an important measure.

I find that the most extensive liberalization took place in the financial sector in relation to financing large businesses. From an institutional structure where the bond market and

international money fluctuations were strictly controlled, Japanese businesses were able to attract funds from other sources than bank borrowings, and the comprehensive information sharing and informal monitoring system dissolved. Hoshi and Kashyap (2001:253) argue that the same liberalization did not take place in the bank sector, as regulations still were tight. This forced banks to continue their focus on lending, and needed to change their customer base from the large corporations to be able to uphold earnings. Competition among banks increased and the relational networking so characteristic of the post-war Japanese banking system was diminished. Moral hazard emerged both in banking and other sectors as the checks and balances in the institutional set up were now removed.

The new customers for banks were to a large extent real-estate companies and other medium-sized enterprises. Discount rates were on a steady decline from 1980 and this made capital cheap and real-estate prices soared. When BOJ finally decided to tighten monetary policy in 1989, Japanese banks were heavily exposed to the real-estate market and a contraction here could have severe consequences. In the aftermath of the tightening of monetary policy, real estate prices plummeted and banks were in extensive difficulties. It seems like BOJ suffered the same challenge, and with the same unfortunate result, as the Federal Reserve in 1928-29. Being thorn between two divergent economic measures, the bank was not able to handle any of them very well. Price and general economic stability was the main monetary policy concern, and from 1985 the yen exchange rate increased in importance. At the same time there was substantial asset price inflation. When monetary policy was severely tightened with extensive increase in the discount rate, the asset bubble burst with severe consequences for the whole economy.

The international context is also important in the build-up of the crisis. US policies towards Japan changed as the American hegemony changed. This materialized in both pressure to appreciate the yen and to liberalize financial markets. Financial liberalization would open Japanese markets for American businesses, something deemed highly attractive. In addition to financial reform, there was a big concern that the yen was undervalued, making Japanese exports unfavorably cheap in the United States. As explained Japanese authorities bowed to the pressure and the exchange rate of yen became a factor in setting monetary policy from the Plaza Accord in 1985, first to increase, then to reduce the value of yen. Concerning the Basle Accord it was not enough to prevent the banking crisis.

The conclusion is that there was an extensive and somewhat lopsided liberalization that took place from the mid 70s. This created some perverse incentives for banks and businesses as

the role of former informal checks and balances in dense business and bank networks declined. It seems like the international pressure and the new liberal ideas created a new institutional structure without fully replacing all the vital elements of the past system. This made the 1992 Japanese economy much more prone to financial instability and banking crisis than in the early post-war period.

Part Three: Synthesis and Conclusion

6. Institutional Settings Leading to Banking Crisis

In this chapter I analyze my findings by comparing the different institutional features in the four crises. From that I will be able to discuss my hypotheses presented in the introduction: that financial crises occur due to a combination of factors; that liberal economies are more prone to crises than regulated ones; and, that our failure to incorporate historical knowledge of earlier crisis make us repeat the same mistakes over and over again.

This chapter is divided into four sections. The two first compares the institutional structures and developments of the international and national institutions respectively. These sections are built on the same template as the two analytical chapters. Section 6.3 discusses my main findings and to what extent these confirm my hypotheses. Section 6.4 presents and discusses limitations to the analysis.

6.1 International Institutional Context

6.1.1 International monetary cooperation

Similarities between the periods

Both in the aftermath of the prewar gold standard and Bretton Woods, international monetary cooperation went into periods of increasing instability and more difficult atmospheres for cooperation. Both developments from stability to instability happened due to changes in international structures. In the 1920s the UK had lost its primacy as monetary hegemon; the commitment to maintain the fixed exchange rate was eroding; and, cooperation between the major states was becoming more difficult. In the 70s and 80s, capital restrictions became increasingly more difficult to uphold due to growing trade and interaction across countries and the United States closed their gold window in 1971 due to a pressure on dollar/gold convertibility. These features made the Bretton Woods cooperation impossible to uphold. In both periods attempts were made to reconstruct preexisting cooperation, but these attempts were unsuccessful, as conditions and prerequisites had changed.

Table 6-1 International monetary cooperation 1920 vs. 1970-80s

Similarities	Differences
• Instability and malfunction compared to preceding period • Reconstruction attempts despite changes in international structures • Deregulation of capital controls in US and Japan both in 1920s and 1980s	• Fixed gold exchange rate from mid-1920s, free float in 1980s • Commitments to different monetary goals. Different tradeoff between interest rate policy, exchange rate and capital controls

In both periods, there was a deregulation of capital movements. The prewar gold standard system had few restrictions on capital movements. During WW I , countries imposed capital movement restrictions to avoid capital flows from the countries. When peace returned, most countries removed these restrictions to restore the system. This made it difficult to uphold the exchange rate while at the same time using monetary policy to achieve general welfare. The result was unclear commitments to exchange rates and instability. To be able to use monetary policies to achieve general welfare at the same times as maintaining the fixed exchange rate to provide stability in international trade, the Bretton Woods system was characterized by restrictions on capital movements. However, these limitations were gradually removed in the 70s and 80s, creating possibilities for large capital flows and possible pressure on monetary authorities in the respective countries.

Differences between the periods

Despite the similarities, there are also substantial differences between the two periods. From the mid-20s there was a fixed gold exchange rate, faced with credibility difficulties. One should also note that Japan did not return to the gold standard until after the banking crisis hit in 1927, however the maintenance of the fixed exchange rate prevailed. In the 1970s, after the Bretton Woods breakdown, both the dollar and the yen floated. The float was not completely free as exchange rates were important for both countries' competitiveness.

As noted, capital restrictions were low in both periods, however the commitments to monetary goals were different in the two periods. In the 20s, the commitment to the fixed exchange rate had primacy, while in the 70s an autonomous interest rate had primacy. These goals were not written in stone, however and a wider approach was taken in both periods. I find this to be one of the reasons for the instabilities and volatility. Without being able to credibly commit to either goal, actors may be able to speculate and to initiate runs on a country or currency, creating volatility and instability.

Impact on the occurrence of financial crises

The international monetary institutional instability in both periods led to currency crises and put strains on the economic conditions in major countries. The direct link from the international institutional structure to banking crises is more difficult to find. Perhaps the most important mechanism is through central bank policy. In the 1920s the Federal Reserve followed an expansive monetary policy to save the system, while in the 80s, BOJ adapted its policy to appreciate the yen to dollar. I believe these policies had adverse consequences for both economies. In the US 1920, this expansive policy led to a fueling of the stock market boom and in Japan, the yen went from being undervalued to be substantially overvalued. This overvaluation made BOJ pursue an expansive monetary policy, which fueled the stock and real estate market boom.

Reinhart and Rogoff (2009:370,390) find that during the Bretton Woods regime, no banking crisis occurred in the two countries. Under the gold standard, both countries had financial trouble relating to WW I and experienced a couple minor banking crises. This shows that banking crises may occur both in periods of international stability and instability. However, it is worth noting that the crises during times of instability seem to be more serious than other banking crises. In order to draw valid inferences on this, more research is needed.

6.1.2 International economic and political structure

The international economic and political structure changed markedly during the periods of investigation. In the 1920s, the war had altered the international balance considerably. The UK had lost much of its economic primacy, European relations had soured and the Americans with the exception of the area of monetary cooperation withdrew from the international political scene. However, I do not find that these changing political and economic structures were important in creating banking crisis in Japan and the United States

in this period. Concerning the period from 1970-1980s, the international political and economic structure seems more important for the occurrence of crises. As American economic hegemony declined in this period, their policies towards aspiring nations changed. From a period where the United States had accepted regulations and anti-competitive behavior from Japan, the Americans now increased pressure for liberalization and reciprocity. In addition, American domestic and foreign policy became more and more expensive. The political leaders were unwilling to face the economic consequences and instead pushed costs abroad, with the printing of money and foreign borrowing. This eventually changed the economic course of the United States and opened the way for Reagan's liberalization. What this section shows is that international structures may be an important source of liberalization and changing policies. I find that the American deregulatory pressure in the 70s and 80s towards Japan played an important role in the liberalization of Japanese finance and postwar economic regime.

6.2 National Institutional Context

6.2.1 Banking

Commercial banking regulation

The institutional banking structure creates the environment for banking activity through capital requirements, scope of financial activities, and through supervision and monitoring in the system. In order to compare the four banking crises, I have analyzed four important aspects: the banking structure; regulation; supervision/monitoring; and, scope of banks.

The banking structure

All four banking crises are characterized by extensive competition between banks. The 1920s banking system in both Japan and the United States is found to contain a vast number of small banks with limited financial resources. There were few limitations to bank establishment resulting in a myriad of establishments in both countries. A key characteristic of the American banking structure was the strict regulation of branch banking and for that reasons the number of banks operating within small communities and single states were high.

Table 6-2 Commercial banking regulation

	Banking structure	**Regulation**	**Supervision and monitoring**	**Scope of banks**
Japan 1927	Fragmented banking system containing a number of small banks with limited financial resources. In addition five big financial *zaibatsu*.	De facto *laissez-faire* banking, few restrictions on bank establishment. Tightening between 1915-1923 without effective results.	Supervision by BOJ and Ministry of Finance. Quite comprehensive tools, but banking structure too fragmented to carry out effectively.	Broad scope of services prohibited from tightening of bank laws in 1915-1916, focus on ordinary banking.
United States 1929	Fragmented, small banks with limited resources. State banks dominated over nationally chartered banks. High degree of competition.	Deregulatory competition between state and federal authorities on capital requirements and scope of banking. Branch banking heavily restricted.	Comptroller, Federal Reserve and state authorities responsible. Focus on attracting banks to their jurisdiction create moral hazard	Commercial banks were allowed to undertake a broad set of activities. Bond and investment business growing before crisis
United States 1980s	Limited competition in post-war regime until elimination of interest rate ceilings, Increasing international and domestic competition	Deregulation of interest rate ceilings and capital requirements, strengthening of depository insurance and rescue system	Comptroller, Federal Reserve and states responsible. Focus on attracting banks to their jurisdiction create moral hazard	Limitation of scope. Focus on narrow banking activity. Strictly separated from investment banking.
Japan 1992	Limited competition during post-war era. Increasing competition due to internationalization and deregulation	Substantial financial deregulation without corresponding deregulation of banking. Lifting interest rate ceilings and liberalization of bond market	Monitoring by BOJ and Ministry of Finance. Extensive networking between business, banks and authorities. Financial deregulation whither away the system.	Limited scope. Banking and lending activity in focus, some possibilities in bond market as part of deregulation.

Small communities and their special interests in keeping their local banks at the expense of interstate banks were able to exert pressure on the regulatory authorities in Congress. As different states had different needs for banking, there were also substantial regulatory differences between states. What makes the Japanese banking system of the 1920s stand out is the two-tiered system. One the one side there were all the small banks with little resources, ensured by small capital requirements, on the other side there were five large banks controlling between 20% and 25% of all advances and deposits.

Throughout the 1980s, banking structures in both Japan and the United States became increasingly more competitive. In the early postwar period limited competition on commercial banking was an important regulatory measure to sustain stable banking. In the US, interest rate ceilings on deposits limited competition, while in addition to interest rate ceiling, entering into Japanese banking was heavily restricted. What happened in the early 80s was an increased competition to attract deposits and to gain customers. In both countries international competition and pressure were important. The American S&L businesses gained ground on commercial bank territory, in addition to financial innovation creating new forms of commercial papers. In Japan increasing possibilities for business to attract finance and extension of commercial papers were important domestic sources of the increased competition.

This analysis shows that the banking structure across space is more similar than the banking structure across time. Japan1927 and US1929 both have a fragmented banking system containing small banks with little resources, while in the 1980s banks come from a period of little competition to a period of increasing competition from other finance and lending businesses and from international pressure. There are some vital similarities, however. In all periods leading up to banking crisis, competition to attract deposits was high or increasing and this led to vulnerable banks.

Regulation and supervision

In the lead up to all four banking crises there is a substantial liberalization of bank and financial market regulation as well as insufficiently developed or ineffectively executed supervision and monitoring. Due to competition between state and federal authorities American banks in the early 1900s faced more and more liberalized requirements to banking. Such a competitive environment may provide moral hazard as authorities are interested in attracting banks and strong regulation and supervision limit the attractiveness. This created a

system were banks faced few restrictions and requirements, making them able to take risks and extend loans to great extent.

Regulation of Japanese banking was from the 1890 Banking Decree found to be de facto *laissez-faire*. There were few restrictions on banking and low capital requirements to establish banks. It is important to note that there were attempts to tighten regulation and to stabilize the banking structure from 1915. However attempts were deemed inefficient. Part of the reason may be found in the supervisory authorities' limited resources and the fragmented banking structure. The vast number of banks made effective supervision difficult and bad behavior from banks was difficult to detect and punish. Regulation without the necessary resources to supervise is insufficient in creating a stable banking system.

Both Japan and the US experienced extensive financial deregulation in the 1980s. Lifting of interest rate ceilings was important in both countries and opened the possibilities for more competition between banks; a competition that was intentionally limited in the aftermath of the 1920s-crises. Banks however were not the main targets for liberalization in either of the systems; making the liberalization effects more indirect. Looking at the deregulatory measures taken in Japan, I find that the opening up of the bond market for businesses, the opening up for foreign investments, and the creating of new financial products as commercial papers created new possibilities for the industry in financing their investments. In addition, this opened up the financial market for other actors than banks, leading to more intensified competition. Japanese banks were still limited in their scope of activities. The comprehensive network monitoring between banks, businesses and authorities was to a large extent built on the tight bank/industry relationship, with industry being dependent on banks for finance. Deregulation of financial markets limited industry's dependence on banks and networking and a key characteristic of bank monitoring were reduced.

We see a similar pattern in both countries, financial innovation created new products and sources of finance. That both Japanese and American banks faced more intensive competition due to financial liberalization created incentives for banks to change their policy and forced them to extend more risky loans in order to uphold profitability. In this environment American authorities strengthened the rescue guarantee for banks. Monitoring of the banking system was not effective.

From this we can see that in all four cases, liberalization of banking and financial markets is substantial. Especially in the 1920s, there were few limitations to banking and banks exploited the opportunities given to them. Once again the similarities are more prominent

than the differences between the crises in the 1920s and the crises in the 1980s and 90s. It seems like the 1920s have some special characteristics, while the 1980s have others. Even though liberalization is expressed differently in the different time-periods, clear liberalizing trends in both time-periods and in both countries are identified.

Scope of banks

Finally, scope of banks is important in understanding banks' fragility to banking crisis. Here I find mixed empirical results. As part of the deregulatory competition between state and federal authorities in the United States, scope of commercial banks was extended towards 1929. This made banks able to undertake investment-banking activities in order to sustain profits as bank loans declined. In Japan there was opening for broad scope of activities in the early phase of banking, from 1890 to 1915-16. Then scope was to some extent limited, making banks concentrate on lending and deposit business. From the 1930s and into the liberalization in the 1970s, diversification of bank activities was low. Though there was some liberalization on the scope of banking activities, banks in the 1980s had limited possibility to undertake diverse business activities in both countries. In the United States there was a somewhat mixed picture with different state authorities tending to grant banks a wider scope of activities, continuing the regulatory competition against federal authorities. When crisis hit banking in the 1980s and 90s, there were still large limitations to the scope of banking activities. These limitations were to a large extent lifted in the 1990s in both countries.

Central bank regulation and operation

Central banking has proved to be important in all four banking crises I have analyzed. The systems in the two countries have been quite different. One major similarity found in all crises is the expansive monetary policy followed in the years before crises, followed by a tightening of policy, which initiated economic recession, stock market and real estate declines or revealed the underlying bank instability in the markets. Table 6-3 gives an overall approach to central banking in the four cases.

The goals of central bank policy have varied to some extent. For Japan, exchange rate and specie reserves were of vital importance in the 20s, and still played a significant role in the 70s and 80s. However in this later period economic stability developed to become the main goal of monetary policy. The commitment to uphold specie reserve had severe consequences for banks and borrowers in the first part of the 1920s.

Table 6-3 Overall assessment of central banks

	Mandate - policy goals	Policy towards crisis	Lender of last resort
Bank of Japan 1927	Prewar goal was meeting commitments to gold standard and to hold enough specie reserve to defend exchange rate. After the war, maintenance of the exchange rate still a key goal.	Loose monetary policy during WW I , tightening of policy 1919-1924 to attract more specie. Earthquake Bills flooded markets with cheap credit from 1923.	Proved to be a credible lender of last resort in the whole period. Both in 1920, 1923 and 1927 the Bank provided substantial amounts of finance to the system in crisis.
Federal Reserve 1929	Originally gold standard and "needs to trade". After the war goals were less clear, but stabilizing economy through stable growth seemed to have precedence. Role as int. monetary hegemon.	Increasing money growth with low discount rate and purchase of government securities. Moral suasion to contain stock market speculation until tightening monetary policy in 1928.	Not thoroughly developed mechanisms and no deposit guarantee forcing banks to liquidate when put under pressure.
Federal Reserve 1980s	Growing commitment to price-stability as Paul Volcker became Chairman. Monetary policy became vital tool for stabilizing the economy.	Severe increase in interest rates in early 80s. Then expansive policy from 84-88 with declining rates. Marked increase in rates from 88-90.	Role performed as part of the governmental approach to banking led by the FDIC. Rights and guarantees made more explicit through "too big to fail"-policy.
Bank of Japan 1992	Bretton Woods' period: fixed exchange rate to dollar, providing conditions for economic growth. Post BW: economic stability most prominent, later exchange rate towards dollar increased its influence	Substantial discount rate decline from 1980-1989, especially rapid 86-87, fueling stock market and real estate boom. Substantial increase of discount rate from 2.5% to 6% 1989Q1-1990Q4.	Guarantees of "no-failure" in financial market. As liberalization commenced, moral hazard materialized. However, severely delayed response in early 90s may have enhanced crisis.

As monetary policy was severely tightened after gold flows out of the country became prominent in 1920, borrowers that had taken advantage of the low interest rate during the war-boom experienced financial difficulties forcing banks into trouble. The swift response

by BOJ stabilized the system and no banks failed. Monetary policy in the period towards 1990 followed some of the same recipe. From the extraordinary high levels of interest rates in 1980, rates were lowered step-wise 1987, and ended at an unprecedented low level at 2.5%. This fueled the stock market and real-estate boom. When the rate was substantially increased from 1989, both the stock market and real estate market plummeted and a large share of bad loans materialized. The delayed rescue measures by BOJ and the government intensified the situation.

In establishing the Federal Reserve, the system was to direct monetary policy towards maintaining the gold standard. With the dissolution of the gold standard during WW I , the Fed had to alter its approach. The primary goal became economic stability, but as goals were not clearly formulated and prioritized, the Fed faced conflicting goals throughout the 20s. While expansionist monetary policy was needed to assist European allies to maintain the newly established interwar gold standard, this policy fueled the stock market boom. When actions first were taken to contain the stock market boom, it only helped reducing confidence in the sustainability of the market that eventually crashed. The underdeveloped deposit insurance and commitments to save banks and institutions in distress forced banks to liquidate assets and further intensified the crisis well into the 30s.

Federal Reserve policy in the 70s and 80s enhanced focus on economic stability and guided the economy towards low inflation. The interest rate became the most important tool and in 1980-81 the economy experienced interest rates well above 15% in order to reduce inflation. This substantially put a strain to the S&L business, leading to deregulation of the market and an increasing pressure on commercial banking. Towards the end of the decade monetary policy was loosening, but the efficient discount rate was above 5% the whole period.

6.2.2 Economic system

Financial relations

Even though the relationship between banks and business traditionally has been much tighter in Japan than in the US, some of the same mechanisms and developments have been present in both countries. In Japan1927 one key explanation for the high amount of bad loans was the tight relationship between bank management and business. Loans were extended to businesses with little or bad security, thus banks became vulnerable to economic downturns. Individual banks also tended to focus on just a few industries, intensifying risk and

vulnerability. With respect to the tight relationship between banks and business, the postwar Main Bank system in Japan resembles the 1927 system, but with one particular difference. While banks in the 1927 system were more dependent on banks than business was on banks, the postwar system developed mutual dependence.

Table 6-4 Financial relations

	Links business/banks	**Main source of finance for business**	**Banks' dependence**
Japan 1927	Tight links between banks and business. Led to moral hazard as bank extended loans with inadequate security or no security to "their" businesses	High stock market capitalization, banks more dependent on business than business on banks.	Banks dependent on business-clients and their advances and deposits.
United States 1929	Antitrust legislation keeping relations on contractual basis. Relationship through ownership and financial influence. A the same time, some large financial houses controlled vital parts of key industries, financial institutions and banks	Stock market and bond market key sources as commercial banks were too small to provide loans for big projects	Banks heavily dependent on investment banking and through that dependent on stocks and stock market.
United States 1980s	Contractual relationship, commercial banking little influence on industry, investment banks and trusts more important.	Internal financing, securities. Bank borrowing declining in period leading up to crisis.	Increasing dependence on real estate market.
Japan 1992	Postwar system: tight relations and mutual dependence and supervision between banks and businesses. Changed as businesses became less dependent on bank financing.	Decreasing dependence due to financial innovation.	Increasing dependence on real estate market.

In 1927, market capitalization was high and the stock market was an important source of funding for business. In the postwar system, business was dependent on banks for finance as other sources were restricted. This mutual dependence system made banks able to control and discipline bad behavior from businesses, an opportunity not available in to the same extent in the 1920s. Even though the ties were tight in the postwar period, well-functioning monitoring through networking between authorities, banks and businesses reduced the risks of moral hazard-behavior. These networks and this interaction dissolved when businesses lost their dependence on banks after the financial deregulation in Japan in the 70s and 80s. In order to maintain profits banks sought new customers and increased their share in the real-estate market. The result was a growing dependence on the volatile real-estate market.

A growing dependence on volatile markets characterized American banks in both late 1920s and in the 1980s. Bank borrowing has never been as important for American businesses as for Japanese. The fragmented and small-scale banking market in the early 20th century made businesses look elsewhere for finance. Regulation of banking developed in direction of diversifying business to make banks able to take part of this financial market expansion through investment banking in bonds and securities. Throughout the 1920s, American banks increased their dependence on these markets and when the stock market crashed in 1929, banks were vulnerable.

The same logic followed the American development in the 1970s and 80s. Due to restrictions on activities in the postwar period, banks' ties with businesses built on contractual relationships to the extent businesses had loans and deposits in banks. Financial innovation and diversity in products made businesses decrease their dependence on banks, and banks therefore needed to attract new customers to maintain profits. As in Japan, the answer was increased dependence on the real-estate market. In this market S&L businesses were already established and banks and S&Ls were played up against each other, securing favorable conditions for borrowers. As the real estate market experienced trouble in the late 80s due to increased interest rates and discovery of bad loans, banks and S&Ls failed in large numbers.

Banking systems too heavily dependent on volatile markets and key sectors or industries become vulnerable in times of economic downturn and instability.

State role in economy

Different state approaches may explain some aspects of the severity of banking crises. The active and interventionist approach of the Japanese government made an impact both on the role assigned to industrial policy and to the rescue-response to economic instabilities.

Table 6-5 State role in economy

	Industrial Policy	**Response to economic instabilities**
Japan 1927	Protection and activist policy to promote Japanese business, especially exporters. A general approach-containing establishment of special banks and support for key industries.	Broad targeting of economic problems as the target to increase specie reserve showed in 1913. Allowed swift rescue-operations by BOJ when banks failed and showed signs of instability both in 1920, 1923 and 1927. Increased government debt substantially to keep economy growing. Tightened regulation.
United States 1929	The basis was laissez-faire and free-market-policy, enhanced by courts and judges, however ad hoc support to vital sectors and industries, favoring large firms.	Business-cycle theory argued for temporary relief while waiting for the economy's self-correction. However, in 1931 revitalizing confidence in economy made Hoover apply tough balancing measures to state budget by tax increase. Tightened regulation
United States 1980s	Postwar system with broad range of regulatory agencies, without an overall approach. With Regan a shift towards less governmental intervention and more *laissez-faire* policies. Ad hoc approaches still present.	Reagan's policy approach contained: Deregulation of postwar institutions and regulations, reduce federal spending, apply monetarism and provide stable monetary growth as policy goals. Continued liberalization
Japan 1992	Extensive postwar role, termed "capitalist developmental state". Active industrial policy promoting chemical and heavy industry. Change from 1973 when focus shifted to broader set of policy goals, reducing the activity of industrial policy.	Deregulation of postwar institutions and regulations. Developed into an ad hoc approach, instead of the holistic system that had prevailed in the postwar period. Slow response to economic downturn in 1990s. Focus on budget balance Continued liberalization

The Ministry of Finance with clear goals and ambitions on behalf of the Japanese economy, applied a holistic approach for economic development in the early 20th century. Economic instabilities were solved swiftly and resources were provided to industries and sectors in jeopardy. Stabilizing the economy was financed through government expenditure and debt increase was substantial, being 75% higher in 1926 than in 1918. At the same time, reregulation tightened the grip on financial markets and institutions, as bank failures became prominent, however effective measures were not applied until after 1927. This holistic interventionist approach was not present in any of the other crisis; *laissez-faire* and ad hoc intervention was more widespread.

The change to state intervention in Japan 1980s is quite substantial. Active industrial policy was less pronounced and more diverse economic goals than growth increased in priority. As the high growth-era ended in the 1970s, the governmental response was liberalization of finance. The government shifted focus from interventionist industrial policy to orthodox fiscal policy balancing budgets. Businesses in distress were assisted in ad hoc basis. When faced with substantial economic distress in the 1990s, the Japanese government approach was weak and late and differed to great extent from the government approaches under financial distress in the 20s, 60s and 70s (Amyx 2004:6).

The American state approach has been characterized by overarching *laissez-faire* policy and ad hoc intervention to industries and businesses found too important to fail. The initial approach by President Hoover to provide short-term relief in 1930s was more in line with later economic theories than the prevailing theory at the time. His following tightening of fiscal policy to balance the budget increased pressure on all parts in the economy and increased the downturn. When Ronald Reagan applied his economic recovery plan in the 1980 it contained the dismantling of postwar economic institutions and the reduction in the role of state. As S&L businesses faced severe difficulties due to the high interest rates, Reagan's response was to liberalize the industry, making it able to undertake a broader set of activities, thus competing against commercial banks. This shows a kind of ad hoc approach to economic problems where deregulation and liberalization always was the answer.

6.2.3 Economic context

What seems to characterize the real economy development is the sustained economic growth in the period leading to crisis, perhaps with the exception of the period leading to the US1980s crisis where growth were more volatile. In this case and in 1920s Japan, inflation

was high. What is perhaps of most comparative interest is the asset-price inflation in the three latest crises. As these asset-bubbles burst, banking crises followed as a result or increased in scale. As noted in *Financial Relations,* banks and financial institutions in these cases had concentrated risk in the volatile markets of real estate and stocks. The consequences were severe.

Table 6-6 Economic context where banking crises occur

	Economic growth	**Asset price-development**
Japan 1927	Economic growth and export boom during WWI. Economic recession in 1920, but experienced growth between 1922 and 1926 fueled by increasing government. Inflation increased 1924-26 before being reduced by the government.	No signs of asset bubble from my analysis.
United States 1929	Sustained economic growth in the period, without major setbacks. Optimism and belief in everlasting growth prevalent. Signs of economic set back in 1929. Trade balance substantially decreased in 1929 and from 1930 economic conditions worsened substantially.	Build up of substantial stock market and real-estate bubble in New York. Speculation soared.
United States 1980s	Volatile economic growth, following an inverse relationship with inflation. Between mid-1974 and 1983 inflation above 6% while economic growth was low and negative in several periods. Especially bad growth from 1980-1984. From 84-90, growth and inflation stabilizes. Stagflation in the 70s cleared the way for Ronald Reagan and his massive liberalization of American economy.	Increasing housing- and stock market prices
Japan 1992	Growth varies around 5% throughout the period, with a peak in 1988. Inflation is low and from 1984 below 2.5%.	Real estate and stock market bubble.

6.3 Institutional Explanations of Banking Crises

6.3.1 Institutional interaction in the crises

My first hypothesis stated that individual factors are inadequate in explaining the occurrence of banking crises thus different combinations of factors are necessary. Table 6-7 shows the

combinations found in this thesis. In the lead-up to all four crises, banking regulation and financial markets were either liberal or liberalized and competition between financial businesses soared. This made the banking system conducive to crisis. But several additional factors were also important. In the three latest crises, banks were heavily exposed to volatile markets such as stocks and real estate. Crises materialized as these markets plummeted. In Japan1927 banks had concentrated their risk on some key businesses with substantial ties to these banks. In the asset-bubble build-up in US1929, US1980s and Japan1992, the respective central banks played an important role, with their expansive monetary policy. The bubbles burst after a tightening of monetary policy, exposing banks and leading to distrust in their ability to uphold commitments.

BOJ was an effective lender of last resort in the 1920s, but these loans were granted without the government being able to change the underlying instabilities. When loans were due, the instability of Japanese banking was revealed and crisis materialized. The international structures in the periods leading to crises were unstable. In the 1920s, the hegemonic role of the UK had declined and they were unable to perform the role, while the United States was unwilling to bear the hegemonic responsibility. In the 70s and 80s, the American position changed as they in previous periods had exploited their hegemonic role. This made the international structures less stable and dependence on other actors, such as Japan and Western Germany, increased. The Federal Reserve's intervention to uphold the interwar gold standard in 1927 through expansive monetary policy had the indirect effect of fueling the stock market bubble. In the 1980s, American influence on Japanese monetary policy had adverse consequences for Japanese economy.

This illustrates how different institutional interactions created crises in my four cases, thus confirms my hypothesis. There are several factors contributing to the build-up, and no individual factor seems to be sufficient for banking crises to occur. Even though I have found that lax banking regulation and high competition is present in all crises, this can only explain some of the vulnerability in banking. Combined with the exposure to volatile markets, this created a system conducive to crises. This may indicate that liberal banking regulation is a necessary condition to banking crises, but more research must be done to answer this.

Table 6-7 Institutional interaction

	Japan 1927	**United States 1929**	**United States 1980s**	**Japan 1992**
International Banking and Finance	Instable and unclear commitments to gold		Volatility in exchange rates	
International Political and Economic Structure	British hegemony weakened and the US not willing to take over the role		US hegemony weakened and as a result changed behavior towards other countries	
Commercial Banking Regulation	Low degree of effective regulation, high competition	Limited regulation, high competition	Liberalization and increasing competition	Liberalization and increasing competition
Central Bank Regulation	Clear commitment to fixed exchange rate and substantial rescue measures	Unclear commitments and conflicting monetary goals.	Increasing focus on inflation-targeting, adverse consequences for banking	Focus on economic stability and exchange rate, adverse consequences for asset prices
Financial Relations	Tight links, leading to moral hazard situations and low quality of security on loans	Banks exposed to bonds and stock market	Banks increasingly exposed to real estate market	Banks increasingly exposed to real estate market
State Role in the Economy	Holistic approach, swift intervention to rescue the system	Concern for anti-trust, hands off when crisis occurred	Wave of liberalization, "too big to fail"-policy	More hands off, focus on budget balance, late response to crisis
Economic Context	Growth due to increasing government debt	Stock market bubble burst in 1929	Volatile growth, inflation soaring, growing stock and real estate prices before burst	Stock market and real estate speculation, bubble burst in 1989

6.3.2 Liberalization contributes to banking crisis

My second hypothesis stated that liberal market economies are more prone to banking crises than regulated and statist economies. My analysis provides several arguments in favor of this. Liberal banking regulation or substantial liberalization of banking and financial markets has been pronounced in all four crises: Japan1927 was characterized by fierce banking competition, low degree of regulation and ineffective supervision due to the myriad of small banks; the US saw a gradual deregulation of banking through the regulatory competition between states and the federal level in the first decades of the 20th century; banks in the US1980s faced growing competition and liberalized financial markets; and, Japanese banks faced liberalized financial markets, deregulation of interest rate ceilings and increasing competition from the late 70s. This deregulation led to fierce competition between banks and financial businesses. The result being substantial amounts of bad loans extended with inadequate or limited security.

I find that the mechanisms behind the deregulation have been somewhat different in the four cases. Most prominent is the "race to the bottom" experienced in the build-up of US1929. In order to attract banks to their jurisdiction there was regulatory competition between state and the federal level. In the 1980s, this regulatory competition was still characteristic, however, now an international "race to the bottom" emerged as well. This resulted in financial liberalization in both the lead-up to both US1980s and Japan1992.

In addition, the state approach also reveals some important notions. This can be illustrated with the different Japanese responses to the two banking crises. In Japan1927, Japanese authorities applied a hands-on approach. When banks faced difficulties throughout the 20s, the state was active and provided aid, resulting in increased government debt. When the 1927-crisis hit, the state responded swiftly to stabilize the market. The banking crises were short and the banking market was stabilized. In Japan1992, the story was quite different. The government had applied budget balance as a key economic goal, due to 19 years of budget deficit. As a result, when crisis hit in 1992, the government response was late and ineffective. This contributed to the long sluggish period in Japanese economy throughout the 1990s.

These characteristics indicate that liberal and laissez-faire states are more prone to severe banking crises than regulated and statist economies. That liberal financial market mechanisms seem to contribute substantially to banking crises gives weight to Minsky's

financial instability hypothesis. Fierce competition on financial markets made banks take risky decisions and exposed them to volatile markets.

The four cases in this thesis show that crises may occur in both countries where states take an active interventionist approach, and where they take a more laissez-faire approach. The difference indicated here is that the government approach is important for the gravity of the crises; interventionist economies may have more efficient tools for effective recovery.

6.3.3 The this-time-is-different syndrome explain recurrent crises

The comparison of crises from different time-periods has shown that mistakes are repeated across time, a notion that gives weight to my third hypothesis. After the crises in the 1920s, both Japan and the US applied strict regulations on banks, both in limiting their diversity of activities and in increasing regulation. In both economies, these regulations decreased competition between banks substantially and led to stable banking markets. In this way the postwar institutions incorporated the lessons from the 20s. When both Japan and the US experienced decreasing growth in the late 70s and 80s, some of these lessons were forgotten. This especially concerned banking and financial competition. In both economies new financial products and new financial businesses limited the role of traditional banking activity through increased competition from both domestic and international competitors. However, this notion should be qualified with the fact that diversity of bank activities was limited in both countries well into the 1990s. That these limitations were lifted in the 1990s, indicate that the authorities even after the crises analyzed here, believed that the financial economy had become so sophisticated that earlier lessons on causes of banking crises were obsolete.

6.4 Limitations of the Analysis

The inferences drawn from these four banking crises are: that combinations of factors explain the occurrence of crisis; that economies with liberal institutions are more conducive to crises; and, that our shortsightedness and belief in the sophisticated financial markets make us believe that old lessons no longer apply. What does this say about the general causes of banking crises? Although my findings are that these outcomes have been pronounced in the crises of investigation, I am not able to extend these arguments to other crises, in other countries and at other times. As I argued in the methodology chapter, analyzing but a few cases makes my internal validity stronger than the external. My result gives an indication of some general inferences as they demonstrate through what

mechanisms these crises develop. Other research designs are better suited for valid inferences on the generality of these insights.

As I study institutional developments, I am not able to specify for example how much regulation is enough for a stable banking market, or how much emphasis central banks need to put on asset-price inflation. This thesis focus on what direction developments has taken in the build-up to crisis and how this has influenced the occurrence of banking crisis.

At the same time, this analysis is no fully-fledged analysis on all the causes of banking crises. I have only analyzed which institutional settings were present in times of crises and how this influenced their occurrence. This makes my analysis a limited contribution to the research on the causes of banking crises.

7. Concluding Remarks

For several centuries financial crises have been a concern for the world economy. However, the interest for the subject comes in waves following major crises. Writing in 2010, the American Sub-Prime Crises and the recent financial instability in Europe have severely shaken our understanding of how banks and financial markets influence the economy. Much have been said and argued about the causes of the 2007 subprime crisis. I believe that the functioning of the economy, and the occurrence of financial crisis cannot be explained without an understanding of the regulations, the framework and the norms that forms and constrains our behavior; the political institutions that makes the economic system. Although my interest for doing research on financial crises origins from the sub-prime crises, this thesis focus on explaining and comparing institutional structures in previous crises. A thorough understanding of history makes us better able to understand the present situation.

While the banking crises in the United States and Japan in the 1920s and in 1980s and 90s are somewhat heterogeneous, I have compared the institutional changes leading up to the crises and found that there are some key similarities present in all crises. In all four crises competition between banks and in banking activities has been pronounced. This competition has throughout the crises made banks small and weak, and in several of the crises made them exposed to risk through concentration of customers in volatile and risky asset markets. In addition, banking and financial market-regulation where crises have occurred have been liberal or liberalized substantially in the period leading up to the crises. In this respect, it seems like the financial instability theory of Hyman Minsky provides some key insights on the functioning of financial markets; when left unrestrained, instabilities will occur. This gives weight to my hypothesis that liberal institutional settings are more prone to crises.

One key feature of the development in American banking regulation has been struggle between federal and state regulatory level. In attracting banks to their jurisdiction a regulatory "race to the bottom" has been identified, most pronounced in the 1980s. Some of the deregulatory pressure in the 1970s and 1980s can be attributed to an international "race to the bottom". Therefore the Basle regulations, creating an international framework for banking regulation were initiated in the late 1980s. At the same time, central banks' emphasis or lack of emphasis on asset prices is found to be too weak to avoid severe asset-price inflation and stock and real estate bubbles have occurred in three of the crises in this

thesis. This shows that causal mechanisms are complex and that institutional interaction, not independent variables create economic structures conducive to crises.

Further, it seems like many of the important lessons from the aftermath of the first crises were abandoned in the 70s and 80s. The further deregulation that took place after my period of investigation with the abolishment of the Glass-Steagall Act in the United States in 1999, shows once again indicate a belief in "this-time-is-different". From the inferences drawn in this thesis, the institutional restructuring-process presently being undertaken in the United States should contain clear restrictions of banking activities and somehow reduce banking competition. At the same time, the role of the central bank should be given thorough thought in its response to asset price inflation. The crises analyzed in this thesis indicate that monetary policy should focus on asset price inflation.

After having conducted this comparative analysis, I find several aspects that call for more intense analysis. Through this comparative case study, I have been able to draw several inferences on how institutional changes affect the occurrence of banking crisis. Are these findings applicable on a larger number of cases? My findings indicate that liberal banking regulation and high degree of competition on bank markets are a necessary condition for banking crises. In order to make valid inferences on this, further cross-case analyses are needed. In addition, I found that the American federal structure has created regulatory competition in banking. A further extension of this research would be to analyze other countries with federal and centralist structure in order to make more general inferences on this finding.

Another aspect to a large extent omitted in this thesis is the severity of crises. I have indicated some findings on this, however this aspect deserves further analysis. From the Japanese case, I have indicated that the government approach to the crisis may be of importance in this respect. From the current developments with a number of economies facing financial strains due to high government debt, the effectiveness of rescue packages in the short and long-term are of high importance.

This thesis has its limitations. However, it has shown that the role of institutions is central and that the economic systems are important in creating banking crises. Lessons on the institutional role in the past can attract more attention to preventing crises in the future, rather than rescuing the system in times of crisis.

Literature

Akerlof, George A. and Robert J. Shiller (2009). *Animal Spirits. How Human Psychology Drive the Economy, and Why it Matters for Global Capitalism*. Princeton and Oxford: Princeton University Press.

Allen, George C. (1980). *Japan's Economic Policy.* London: Macmillan Press Ltd.

Amyx, Jennifer A. (2004). *Japan's Financial Crisis. Institutional Rigidity and Reluctant Change.* Princeton: Princeton University Press.

Aoki, Masahiko (1994). "Monitoring Characteristics of the Main Bank System: An Analytical and Developmental View" ch. 4 in Masahiko Aoki and Hugh Patrick (ed.). *The Japanese Main Bank System.* Oxford: Oxford University Press.

Aoki, Masahiko, Hugh Patrick and Paul Sheard (1994). "The Japanese Main Bank System: An Introductory Overview" ch. 1 in Masahiko Aoki and Hugh Patrick (ed.). *The Japanese Main Bank System.* Oxford: Oxford University Press.

Bank of Japan (2010). "Bank of Japan" in *BOJ Time-Series Data Search.* Available at http://www.stat-search.boj.or.jp/ssi/cgi-bin/famecgi2?cgi=$nme_a000_en&lstSelection=1 (29.03.10)

Barth, James R., R. Dan Brumbaugh Jr. and James A. Wilcox (2000). "Policy Watch: The Repeal of Glass-Steagall and the Advent of Broad Banking" in *Journal of Economic Perspectives*. Vol. 14, No. 2, pp. 191-204.

Bekaert, Geert, Campbell R. Harvey and Christian Lundblad (2005). "Does financial liberalization spur growth?" in *Journal of Financial Economics*. Vol. 77, pp. 3-55.

Blyth, Mark (2002). *Great Transformations. Economic Ideas and Institutional Change in the Twentieth Century*. Cambridge: Cambridge University Press.

Board of Governors of the Federal Reserve System (1943). *Banking and Monetary Statistics, 1914-1941.* Washington D.C.

Boyd, John H. and Mark Gertler (1994). "The Role of Large Banks in the Recent U.S. Banking Crisis" in *Federal Reserve Bank of Minneapolis Quarterly Review.* Vol. 18, No. 1

Browne, Lynn E. and Karl E. Case (1992). "How the Commercial Real Estate Boom Undid the Banks" in L.E Browne and E.S Rosenberg (ed.). *Real Estate and the Credit Crunch.* Boston: Federal Reserve Bank of Boston, Conference Series No. 36, September.

Calomiris, Charles W. (2000). *U.S. Bank Deregulation in Historical Perspective.* Cambridge: Cambridge University Press.

Canova, Timothy A. (1995). "The Transformation of U.S. Banking and Finance: From Regulated Competition to Free-Market Receivership" in *Brooklyn Law Review.* Vol. 60, No. 4, pp. 1295-1354.

Caprio, Gerard and Daniela Klingebiel (1996). "Bank Insolvency: Bad Luck, Bad Policy, or Bad Banking? in Michael Bruno and Boris Plekskovic (ed.). *Annual World Bank Conference on Development Economics 1996.* Washington DC: The World Bank.

Cargill, Thomas F., Michael M. Hutchinson and Takatoshi Ito (1997). *The Political Economy of Japanese Monetary Policy.* Cambridge: The MIT Press.

Cargill, Thomas (2001). "Monetary Policy, Defaltion, and Economic History: Lessons for the Bank of Japan" in *Monetary and Economic Studies. Special Edition.* Feb 2001, pp. 114-142.

Chandler, Alfred D. Jr. (1990). *Scale and Scope. The Dynamics of Industrial Capitalism.* Cambridge and London: The Belknap Press of Harvard university Press.

Cooper, George (2008). *The Origin of Financial Crises. Central Banks, credit bubbles and the efficient market fallacy*. Petersfield: Harriman House.
Eichengreen, Barry (1992). *Golden Fetters. The Gold Standard and the Great Depression, 1919-1939*. New York: Oxford University Press.
Eichengreen, Barry (1998). *Globalizing Capital. A History of the International Monetary System.* Princeton: Princeton University Press.
Eichengreen, Barry and Andrew Rose (1997). *Staying Afloat When the Wind Shifts: External Factors and Emerging-Market Banking Crises.* NBER Working Paper No. W6370. Read 27.01.10. Available at: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=106378 (06.05.10)
Fama, Eugene, F. (1970). "Efficient Capital Markets: A Review of Theory and Empirical Work" in *The Journal of Finance.* Vol. 25, No. 2, pp. 383-417.
FDIC (1997). " An Examination of the Banking Crises of the 1980s and the early 1990s" Vol. 1 in *History of the Eighties - Lessons for the Future.* Federal Deposit Insurance Corporation's Division of Research and Statistics.
Federal Reserve Bank of St. Louis (2010). "Effective Federal Funds Rate" in *Economic Research.* Available at http://research.stlouisfed.org/fred2/graph/?id=FEDFUNDS (16.04.10)
Federal Reserve Board (1924). *Tenth Annual Report of the Federal Reserve Board. Covering Operations for the Year 1923*. Washington: Government Printing Office.
Ferguson, Niall (2009). *The Ascent of Money. A Financial History of the World*. London: Penguin books.
French, Michael (1997). *US Economic History since 1945.* Manchester: Manchester University Press.
Friedman, Milton and Anna J. Schwartz (1963). *A Monetary History of the United States. 1867-1960.* Princeton: Princeton University Press
Friedman, Milton (1968). "The Role of Monetary Policy" in *The American Economic Review,* Vol. 58, No. 1 pp. 1-17.
Galbraith, John Kenneth (1975). *The Great Crash 1929.* London: Penguin Books.
Gavin, Michael and Ricardo Hausmann (1996). "The Roots of Banking Crises: The Macroeconomic Context" in Ricardo Hausmann and Lilliana Rojas-Suárez (ed.). *Banking Crises in Latin America.* Baltimore: Johns Hopkins Press.
Gerring, John (2007). *Case Study Research. Principles and Practices.* Cambridge: Cambridge University Press.
George, Alexander L. and Andrew Bennett (2005). *Case Studies and Theory Development in the Social Sciences.* Cambridge, London: MIT Press.
Gilpin, Robert (1987). *The Political Economy of International Relations.* Princeton: Princeton University Press.
Gourevitch, Peter (1978). "The Second Image Reversed: The International Sources of Domestic Politics" in *International Organization.* Vol. 32, No. 4, pp. 881-912.
Hall, Maximilian J. B. (1993). *Banking Regulation and Supervision. A Comparative Study of the UK, USA and Japan.* Aldershot: Edward Elgar Publishing Ltd.
Hall, Maximilian J. B. (1998). *Financial Reform in Japan. Causes and Consequences.* Cheltenham: Edward Elgar Publishing Ltd.
Hall, Peter A. and David Soskice (2001). "Introduction" ch. 1 in Peter A. Hall and David Soskice (ed) (2001). *Varieties of Capitalism: The Institutional Foundations of Comparative Advantage.* New York: Oxford University Press.
Helleiner, Eric (1994). *States and the Reemergence of Global Finance. From Bretton Woods to the 1990s.* Ithaca and London: Cornell University Press.

Hetzel, Robert (2008). *The Monetary Policy of the Federal Reserve. A History.* Cambridge: Cambridge University Press.

Hollingsworth, J. Rogers (1991). "The Logic of Coordinating American Manufacturing Sectors" ch. 2 in John L. Campbell, J. Rogers Hollingsworth and Leon N. Lindberg (ed.). *Governance of the American Economy.* Cambridge: Cambridge University Press.

Hoshi, Takeo and Anil K. Kashyap (2001). *Corporate Financing and Governance in Japan. The Road to the Future.* Cambridge, London: The MIT Press.

Ide, Masauke (1998). Japanese Corporate Finance and International Competition. Japanese Capitalism versus American Capitalism. London: Macmillan Press.

Johnson, Chalmers (1995). *Japan: Who Governs? The Rise of the Developmental State*. New York: W. W. Norton & Company.

Jones, Charles (1998). *E.H Carr and International Relations. A Duty to Lie.* Cambridge: Cambridge University Press.

Kaminsky, Graciela L. and Carmen M. Reinhart (1999). "The Twin Crises: The Causes of Banking and Balance-of-Payment Problems" in *The American Economic Review.* Vol. 89, No. 3, pp. 473-500.

Katzenstein, Peter (1985). *Small states in the World Markets. Industrial Policy in Europe.* Ithaca: Cornell University Press.

Kemmerer, E.W (1922) "The Purposes of the Federal Reserve Act As Shown By Its Explicit Provisions" ch. 8 in A. D. Welton and C. H. Crennan (ed.). *The Federal Reserve System - Its Purpose and Work* Philadelphia: The American Academy of Political and Social Science.

Keohane, Robert O. (1984). *After Hegemony. Cooperation and Discord in the World Political Economy.* Princeton: Princeton University Press.

Keynes, John Maynard (1919). *The Economic Consequences of the Peace.* BN Publishing.

Keynes, John Maynard (1926). The End of Laissez-Faire. The Economic Consequences of the Peace. BN Publishing.

Kindleberger, Charles P. (1987). The World in Depression 1929-1939. Harmondsworth: Penguin books

Kindleberger, Charles P. (1989). *Manias, Panics and Crashes. A History of Financial Crises.* Second edition. London: Macmillan.

Kindleberger, Charles P. and Robert Z. Aliber (2005). *Manias, Panics and Crashes. A History of Financial Crises.* Fifth edition. New York: Palgrave Macmillan.

King, Gary, Robert O. Keohane and Sidney Verba (1994). *Designing Social Inquiry. Scientific Inference in Qualitative Research.* Princeton, NJ: Princeton University Press.

Knutsen, Carl Henrik (2009). *Democracy, Dictatorship and Technological Change.* Working paper Political Science Department at the University of Oslo.

Knutsen, Sverre and Einar Lie (2002). "Financial Fragility, Growth Strategies and Banking Failures: The Major Norwegian Banks and the Banking Crises, 1987-92" in *Business History.* Vol. 44, No. 8, pp. 88-111.

Komiya, Ryutaro (1988). "Introduction" ch. 1 in Ryutaro Komiya, Masahiro Okuno and Kotaro Suzumura (ed.). *Industrial Policy of Japan.* Tokyo: Academic Press Japan.

Kon-Ya, Fumiko (1995). "The Rise and Fall of the Bubble Economy" ch. 9 in Mitsuaki Okabe (ed.). *The Structure of the Japanese Economy.* New York: St. Martin's Press.

Kotz, David M. (1978). *Bank Control Over Large Corporations in the United States.* Berkeley: University of California Press.

Krugman, Paul (2008). *The Return of Depression Economics and the Crisis of 2008.* London: Penguin Books.

Lash, Scott and John Urry (1987). *The End of Organized Capitalism.* Cambridge: Polity Press.

Lincoln, James R., Michael L. Gerlach, and Peggy Takahashi (1992). "Keiretsu Networks in the Japanese Economy: A Dyad Analysis of Intercorporate Ties" in *American Sociological Review.* Vol. 57, No. 5, pp. 561-585.

Lindberg, Leon N. and John L. Campbell (1991). "The State and the Organization of Economic Activity" ch. 12 in John L. Campbell, J. Rogers Hollingsworth and Leon N. Lindberg (ed.). *Governance of the American Economy.* Cambridge: Cambridge University Press.

Mahoney, James (2003). "Strategies of Causal Assessment in Comparative Historical Analysis" ch. 10 in James Mahoney and Dietrich Rueschemeyer (ed.). *Comparative Historical Analysis in the Social Sciences.* New York: Cambridge University Press.

Mahoney, James and Gary Goertz (2004). "The Possibility Principle: Choosing Negative Cases in Comparative Research" in *American Political Science Review.* Vol. 98, No. 4, pp. 653-669.

Mahoney, James and Dietrich Rueschemeyer (2003). "Comparative Historical Analysis: Achievements and Agendas" ch. 1 in James Mahoney and Dietrich Rueschemeyer (ed.) (2003). *Comparative Historical Analysis in the Social Sciences.* New York: Cambridge University Press.

Minsky, Hyman P. (1982). "The financial-instability hypothesis" ch. 2 in Charles P. Kindleberger and Jean-Pierre Laffargue (ed.) *Financial crises. Theory, history, and policy.* Cambridge: Cambridge University Press.

Minsky, Hyman P. (2008). *Stabilizing an Unstable Economy.* New York: McGraw-Hill.

Mundell, Robert A. (1968). *International Economics.* New York: Macmillan.

North, Douglass C. (1990). *Institutions, Institutional Change and Economic Performance.* Cambridge: Cambridge University Press.

Ogura, Shinji (2002). Banking, the State and Industrial Promotion in developing Japan, 1900-1973. New York: Palgrave Macmillan.

Okabe, Mitsuaki (1995). " Monetary Policy in Japan: A Perspective on Tools, Transmission Channels and Outcomes" ch. 12 in Mitsuaki Okabe (ed.). The Structure of the Japanese Economy. New York: St. Martin's Press.

Perez, Carlota (2002). *Technological Revolutions and Financial Capital*. Cheltenham: Edward Elgar.

Persson, Torsten and Guido Tabellini (2004). “Constitutions and Economic Policy” in *The Journal of Economic Perspectives* Vol. 18. No. 1. pp. 75-98.

Polanyi, Karl (2001). *The Great Transformation. The Political and Economic Origins of Our Time.* Second Bacon Paperback edition. Boston: Beacon Press.

Pollard, Alfred M., Joseph G. Passaic Jr., Keith H. Ellis and Joseph P. Daly (1988). *Banking Laws in the United States.* Austin: Butterworth Legal Publishers.

Przeworski, Adam, Michael E. Alvarez, José Antonio Cheibub and Fernando Limongi (2000). *Democracy and Development. Political Institutions and Well-Being in the World, 1950-1990.* Cambridge: Cambridge University Press.

Przeworski, Adam (2003). *States and Markets. A Primer in Political Economy.* Cambridge: Cambridge University Press.

Ragin, Charles C. (1987). The Comparative Method. Moving Beyond Qualitative and Quantitative Strategies. Berkeley: University of California Press.

Reinert, Erik S. (2009). *Spontant Kaos. Økonomi i en ulvetid.* Oslo: Res Publica.

Reinhart, Carmen M. and Kenneth S. Rogoff (2009). *This Time is Different. Eight Centuries of Financial Folly.* Princeton and Oxford: Princeton University Press.

Rogowski, Ronald (1987). “Trade and the Variety of Democratic Institutions” in *International Organization* Vol. 41. No. 2. pp. 203-223.
Røed Larsen Erling and Jon Mjølhus (2009). *Finanskrise. Lånefest, boligboble - og dagen derpå.* Oslo: Gyldendal Akademisk.
Samuelson, Paul A. (1958). *Economics: an introductory analysis.* Fourth edition New York: McGraw-Hill.
Schiffer, Hubert F. (1962). *The Modern Japanese Banking System.* New York: University Publishers Incorporated.
Shin, Hyun Song (2009). "Reflections on Northern Rock: The Bank Run That Heralded the Global Financial Crises" in *Journal of Economic Perspectives.* Vol. 23, No. 1, pp. 101-119.
Stiglitz, Josef (2002). *Globalization and its discontents.* London: Penguin Books.
Stone, Douglas and William T. Ziemba (1993). "Land and Stock Prices in Japan" in *Journal of Economic Perspectives.* Vol. 7, No, 3, pp. 149-165.
Strange, Susan (1986). *Casino Capitalism.* Oxford: Basil Blackwell.
Strange, Susan (1996). T*he Retreat of the State. The Diffusion of Power in the World Economy*. Cambridge: Cambridge University Press.
Strange, Susan (1998). *Mad Money.* Manchester: Manchester University Press.
Tamaki, Norio (1995). *Japanese Banking. A History, 1859-1959.* New York: Cambridge University Press.
Thelen, Kathleen (2003). "How Institutions Evolve: Insights From Comparative Historical Analysis" ch. 6 in James Mahoney and Dietrich Rueschemeyer (ed.) (2003). *Comparative Historical Analysis in the Social Sciences.* New York: Cambridge University Press.
Ueda, Kazuo (1994). "Institutional and regulatory Frameworks for the Main Bank System" ch. 3 in Masahiko Aoki and Hugh Patrick (ed.). *The Japanese Main Bank System.* Oxford: Oxford University Press.
Uekusa, Masu (1988). "The Oil Crisis and After" ch. 4 in Ryutaro Komiya, Masahiro Okuno and Kotaro Suzumura (ed.). *Industrial Policy of Japan.* Tokyo: Academic Press Japan.
U.S Bureau of Census (1949). *Historical Statistics of the United States 1789-1945.* Washington D.C.: United States Department of Commerce.
Vitols, Sigurt (2001). "The Origins of Bank-Based and Market Based Financial Systems: Germany, Japan and the United States" pp. 171-199 in Wolfgang Streeck and Kozo Yamamura (ed.). *The Origins of Nonliberal Capitalism. Germany and Japan in Comparison.* Ithaca and London: Cornell University Press.
Welton, A. D. and C. H. Crennan (1922). "The integrity of the Federal Reserve System" Foreword in A. D. Welton and C. H. Crennan (ed.). *The Federal Reserve System - Its Purpose and Work* Philadelphia: The American Academy of Political and Social Science.
Werner, Richard A. (2009). *A Comparative Study of Selected 20th Century Banking Crisis in Japan and Implications for Theory and Policy.* Centre of Banking, Finance and Sustainable Development University of Southampton. Discussion Paper Series No 1/09. Available at http://74.125.155.132/scholar?q=cache:x6oNp62L3xYJ:scholar.google.com/++Richard+Werner+a+comparative+study+banking+crisis+japan&hl=no&as_sdt=2000 (26.04.10).
White, Eugene Nelson (1982). "The Political Economy of Banking Regulation, 1864-1933" in *The Journal of Economic History.* Vol. 42, No. 1, pp. 33-40.

White, Eugene Nelson (1985). "The Merger Movement in Banking, 1919-1933" in *The Journal of Economic History.* Vol. 45, No. 2, pp. 285-291.

White, Eugene Nelson (1986). "Before the Glass-Steagall Act: An Analysis of Investment Banking Activities of National Banks" in *Explorations in Economic History.* Vol. 23, pp. 33-55.

Williamson, John (2004). "The Washington Consensus as Policy Prescription for Development" in *Practitioners of Development.* Lecture given at the World Bank January 13 2004. Available at: http://www.petersoninstitute.org/publications/papers/williamson0204.pdf (10.02.01).

World Bank (2009). *World Development Indicators 2008.* Available at: http://ddp-ext.worldbank.org/ext/DDPQQ/member.do?method=getMembers (06.04.10).