I Believe

The Connection between Trust and the Development of Credit and Banking in Western Europe

Bachelor's Thesis by:

Daniël Kerolles (355746)

ERASMUS UNIVERSITY ROTTERDAM

Erasmus School of Economics

Department of General Economics

03 – 07 – 2014

Thesis Supervisor: Dr. R.M. Verburg

Second Reader: Dr. B.S.Y. Crutzen

Abstract

Nowadays, the reputation of financial institutions is an important topic in international financial economics. Financial crises, like the one in 2008, often deal a blow to the trust that people have in banks and in the financial system as a whole. However, lots of people do not even know why the banking system exists in the first place and how it came to be. This thesis provides a framework, which provides information about the relationship between trust and the development of credit and banking in three relevant, historical time periods; the Italian renaissance, the Dutch golden age and eighteenth century England. A wide variety of relevant literature was consulted and compared in order to get a good picture of how the system of credit and banking developed in those time periods as well as to what extent trust could be considered an important factor in this development. It turns out that there is no evidence to prove that people have disliked using credit over the ages, because of the risk credit contains in itself. However, the reputation of the parties involved as well as economic, social and political events turned out to be major factors in the development of the banking system. In conclusion to this research, one could say that trust has indeed played a major role in the development of credit and banking, over the ages. However, it is recommended to supplement or complement the findings in this research with a deepening or widening of the covered material, in order get a better picture of the story.

Table of Contents

Introduction

- **Topic** 4
- **Research** 5
- **Relevance** 5
- **Outline** 6

Theoretical Framework

- **General Framework** 6
- **Trust** 7
- **Credit and Banking** 11
- **Western European History** 12
- **Hypotheses** 15

Methodology 16

Results

- **Italy** 17
- **The Dutch Republic** 20
- **England** 24

Conclusion 26

Limitations and Further Study 28

Bibliography 30

Introduction

Topic

Credit and banking. Often, it only takes one of these two words to create confusion and distrust among people who do not have a lot of knowledge of finance and economics. The economic crisis of 2008 still is a fresh memory in the minds of economists and non-economists alike. While the economist might see the crisis as a logical and perhaps unavoidable consequence of poor financial policy among certain individual agents, the non-economist tends to lose trust in the financial system as a whole. Consumers become afraid to deposit money in their banks and they become sceptical when it comes to politicians promising economic improvement. In other words, people have lost trust in the financial system and have become suspicious when it comes to the words "credit" and "banking". If this trend keeps up, it could pose a serious problem for the world economy. The point is that the economy is built on trust and the word credit even comes from the Latin word "credo", meaning "I believe". This is referring to the trust the lender has in the borrower when it comes to the borrower paying him back the debt (Ferguson, 2008). Nowadays, however, a world without credit and banking is almost unthinkable whether we like it or not. Everyone has at least one bank, at which they deposit their money or at which they request a loan for, for example, a new house or car. And everybody comes across the many advertisements and news articles, involving banks. Due to the existence of inter-temporal choice, most consumers and institutions engage in the lending or borrowing of money (or goods) in one way or another depending on their impatience and their valuation of consumption at specific times (Burda & Wyplosz, 2009). But how did this system of borrowing and lending become a mainstream instrument of financial institutions, seeing that people's trust in the financial system is not always self-evident? Where did credit come from and how did the use of credit develop into the financial institutions, which we call banks? What role did trust play in the development of credit and how have people's attitudes towards credit changed over time? More importantly, how can these questions be answered in the context of western European civilization?

Research

In order to carry out the research, which will be reported in this thesis, the following research question has been formulated: *"To what extent was the development of the system of credit and banking in western Europe dependent on the people's trust in the financial system, when we take the Italian renaissance as its point of origin?"*.

In order to research this, a closer look will be taken at three major financial centres of western European history; Italy, The Netherlands and England. These three countries have been chosen due to the important financial roles, which they have played over the ages. Italy is the country where the financial system of credit and banking originated, most notably with the Medici family (Ferguson, 2008). The Netherlands (or better: the Dutch Republic) was the country which had, perhaps, the most thriving financial market in the 17th century, after which England was the most important country to build upon the success of the Dutch Republic (De Vries & Van der Woude, 2005). Not only will the development of credit and banking be researched, but a closer look will also be taken at the general attitudes towards credit during those times in order to be able to make conclusions on the connection between people's trust in the financial system and the development of credit and banking.

Relevance

The relevance of this subject lies in the fact that people often tend not to trust financial institutions and systems, while not really knowing a lot about them. One could say, in this case, that consumers are afraid of the unknown, with their fear and distrust not always being justifiable. Therefore, the goal of this thesis is to provide information and to make people more knowledgeable of the origin, the development and of the reasons for the existence of credit and banking. Also, this research is meant to make people realise the effects of their trust or distrust in the financial system on the world economy. From a scientific point of view, it is often wise to go back to the origins in order to get a better understanding of present situations of financial systems and perhaps also in order to perform more accurate predictions of future events. Also,

this thesis serves as a framework where the effects of social factors on financial policy are examined. Therefore, this thesis can be seen as both socially as well as scientifically relevant.

Outline

Before the actual research results are discussed, the relevant terms and concepts will be properly defined and explained in a theoretical framework. For example, the concept of trust will be defined and, among other things, explained by placing it in a financial-economic context. The same will be done with terms like credit, banking and other terms related to this research. In addition, the connection between the different concepts will be discussed. Based on the research question and relevant concepts, two hypotheses will be given. After this, another section will follow where the methodology of this research will be discussed. In this section, there will be an explanation on how the research was conducted. For example, which major sources were consulted and how were they used to get the results? This section will be followed by another section, containing the actual research results. After the results section, the hypotheses, mentioned earlier, will be accepted or rejected based on the relevant results. Finally, the thesis will be concluded by explicitly answering the research question as well as by discussing the limitations of the research and by providing recommendations for further study.

Theoretical Framework

General Framework

Before the results are discussed, it is important to define all relevant terms and concepts so that this thesis will be understandable to a broad target audience. Keeping in mind that the goal is mostly to inform the average consumer without in-depth knowledge of finance and economics as well as providing a historical framework for academics, a clear theoretical framework is necessary in order to clarify the main concepts discussed in this thesis. This research is based on three major disciplines: sociology, financial economics and history. All of which relate to three major concepts: trust, credit and banking and a western European historical context. All three concepts as well as the important terms related to them will be discussed in the coming pages.

Trust

In this thesis the concept of "trust" is broadly defined as a belief in and as a conviction of the credibility, integrity and commitment of another person or party, with whom an individual has made an agreement under circumstances of uncertainty. Trust is an aspect of life, which every single individual has to deal with, whether one is talking about trust in friends, relatives or acquaintances or about trust in a context of professional commitment. In some cases, trust has to be seen as a sociological and collective attitude, rather than as a psychological and individual state of mind (Lewis & Weigert, 1985). This is because trust is not often applicable to only a single individual. Especially in an economic context, the effects of trust are only observable if the majority of a population, or at least a large part of it, holds a certain view. For example, the effects of trust of a single individual on the countrywide economy would be negligible. However, often it is necessary to look at the individual to see what drives the larger group. Even though the general effects of trust will only be observable if a large group holds a certain view, the trust or distrust of one individual can cause other people to hold the same view through a snowball effect. An interesting example of this is when the Dutchman, Pieter Lakeman, suggested that everyone should take their money out of the DSB (Dirk Scheringa Beheer) bank, because of the untrustworthiness of its founder, Dirk Scheringa. What happened was that more and more people took their money out of the DSB bank, because of an accumulation of distrust among its clients. Eventually, because of the claim of one person, the DSB bank had to file for bankruptcy in 2009 (Driehuis, 2009). In common words, the opposite of trust would be doubt. Will this person, with whom I have made an agreement, stay committed in the long run? Will he or she deliver the goods or services as promised? Can I count on help in the future in the case I might need it? The existence of these questions indicates an absence of trust, which is doubt. In the extreme case, doubt can lead to, what in this thesis will be referred to as, distrust. Doubt can be seen as a reaction to uncertainty, where uncertainty is the confidence interval of the probabilities of both downward risk and upward potential. In other words, uncertainty is a blank map consisting of scenarios of which the outcomes are unknowable (Read, Sarasvathy, Dew, Wiltbank, & Ohlsson, 2011). The existence of both downward risk and upward potential leaves an individual or a group of individuals in a midway position, creating doubt. Distrust is a more

extreme case, where the upward potential is very unlikely to be realised or even non-existent and where one is left only with downside risk. Both trust and distrust serve the facilitation of complex decision making, since both trust and distrust lead to a certain course of action (Lewis & Weigert, 1985). For example, if a person trusts a certain political party, he or she will vote for that specific party. However, if the same person does not trust the political party, he or she will vote for another one. Here, it is important to understand that it is not about the actual existence of uncertainty, but rather about how the individual perceives it. Uncertainty is always present, however the individual does not always have to experience a situation as totally uncertain. Trust and distrust are not necessarily triggered due to the reality of a situation, but rather as a result of how an individual perceives it. In a way, the concept of trust might go against the standard economic assumption of "homo economicus". This assumption states that economic agents always act in their own selfish interests and are always seeking to increase their own benefit. The homo economicus does not follow emotions nor feelings, but he bases his decisions on the objective calculation of costs and benefits. The concept of trust however, requires that an economic agent partially refrains from this calculation and to a certain extent that he or she follows after his or her own intuition. The concept of trust also requires that economic agents assume that other agents do not always act in their own interest but that they take the interests of others into account. This can be viewed as irrational thinking, from a classical economic point of view (Xin & Liu, 2013).

In economics trust has played an important role even though it might go against the rationality of the homo economicus. Actually, trust is used as an explanation as to why individuals do not purely show behaviour after the example of the rational homo economicus. Trust in economics is often pictured by the concept of game theory. Game theory revolves around the actions of multiple individuals whose actions do not only affect their own payoff but also the payoff of others. Every player in the game has its own set of actions and preferences, but every player is also affected by the actions of all other players. This can either be done in a strategic game without a notion of time, where all players act simultaneously or in an extensive game where players move sequentially within a certain time dimension (Osborne, 2000). An interesting scenario, which clarifies the connection between trust and game theory is called the "prisoners

dilemma". In this scenario, imagine that there are two prisoners, who are accused of a crime. The prisoners have been taken into custody and are interrogated. Both prisoners are interrogated separately, without any possibility of knowing beforehand, whether one of them confesses or not. If both prisoners keep quiet, this would result in an equal punishment for both of them, one that is relatively low. Let us say that this low punishment is equal to one year in prison. If both of them confess, they will also get an equal punishment, but this time it will be a higher punishment. Let us say two years for both of them. However, if one of the prisoners confesses, but the other one does not then the one who confessed will be set free, while the other prisoner will get the full punishment of, for example, five years in prison. The prisoners know the effects of their decisions, however they cannot know beforehand which course of action the other prisoner will take (Stanford University, 2007). So one could ask; what determines the action chosen by the prisoners? The answer to that is that it is the perception of the degree of trustworthiness of the other prisoner, which determines the action that each prisoner will take. If the prisoners perceive each other as trustworthy, then both will expect each other to minimize the punishment, which will result in both of them keeping quiet. The exact opposite will happen, when the prisoners perceive each other as untrustworthy. However, if one prisoner perceives the other one as trustworthy, while the other prisoner perceives the first one as untrustworthy, this will result in the first prisoner keeping quiet and the other prisoner confessing, thus giving the first prisoner the full punishment. From this we can see that trust in an economic context is based on the expected effects of other people's actions on your own payoff and that your actions are based on whether you perceive the other individuals to be trustworthy or not.

An economic framework in which trust is a problem, rather than a solution, is the agency theory. An agency relationship is a relationship where the principal hires an agent to take actions or to make decisions that affect his own payoff. However, this relationship might suffer from conflicts of interest. An often used example is that of the relationship between shareholders / board of directors and managers. The managers might not always act in the interest of the shareholders, but they could end up making decisions based on their own personal payoff. To give a simple example, a manager might be more concerned with buying a

new car now than with increasing shareholder value in the long run (Besanko, Dranove, Shanley, & Schaefer, 2010). The reason why agency problems have the possibility of occurring is due to information asymmetry, manifesting itself as hidden action and hidden information. Often, it is not possible for the principal to fully observe all actions taken by the agent. Also, the agent could take more risks during his operations because he knows that this risk will (partially) be shifted to the principal, while the principal is not always able to observe the extra risks taken by the agent (Besanko, Dranove, Shanley, & Schaefer, 2010). According to Besanko et al. (2010), there are certain solutions to agency problems like monitoring and pay-for-performance systems, each with their own pros and cons. However, an interesting preventive measure is the use of signalling. The Oxford Dictionary defines signalling as *"the conveying of information or instructions by means of a gesture, action, or sound"* (Oxford University Press, 2014). This means that the agent signals information to the principle, which would serve to communicate his level of trustworthiness. Examples of this are university degrees and professional records. The condition, which makes a signal credible, is that it has to be linked to a costly investment by the agent. For example, to get a degree in higher education, the agent has had to invest a lot of money and time into his studies. Also, the signalling of false information should be very costly, since it could greatly affect the agent's reputation and the perception of the credibility of his future signals by other principals. In other words, the signal has to be costly to fake (Frank & Cartwright, 2013).

Trust also plays an important role when it comes to credit and banking. The entire principle of borrowing and lending is based on the lender's trust in the borrower. This can be a family member who trusts that you pay back a certain amount of money on time or a bank which checks your credibility before issuing large loans. On the other hand, it can also be a consumer who has to trust the bank enough to deposit his money into a bank account. The modern system of credit and banking also accounts for doubt and distrust by offering a compensation for perceived risk. This can be seen as reverting back to the assumption of homo economicus, since the lender now asks for a benefit when issuing a loan. However, Duarte, Siegel and Young (2009) state that people who are perceived as trustworthy are more likely to obtain a loan. They also state that lenders are more satisfied with lower compensation for risk if they perceive the

borrowers as being more trustworthy (Duarte, Siegel, & Young, 2009). The relationship between trust, credit and banking seems like a close one, which makes it relevant to examine the connection between these concepts.

Credit and Banking

This thesis focusses more on the relationship between trust and the development of credit and banking, rather than on the technicalities of credit and banking in itself. Therefore, the concept of credit and banking will not be discussed in too much detail. In reality, the system of credit and banking is much more complex than this thesis would make it seem. However, an examination of all technical details of credit and banking is beyond the scope of this thesis. Therefore, the choice was made to limit this concept to a general framework, which would suffice to make one understand the basic ideas behind credit and banking. Since trust is more of an abstract concept, while credit and banking are more technical and concrete, the definitions for credit and banking will be taken from the online Oxford dictionary, which is owned by Oxford University Press. The reason for this is that abstract concepts, need a broader explanation and a more specific definition, since their meaning can often be ambiguous. However, concrete concepts can be defined using clear-cut definitions from academic dictionaries. Of course, these clear-cut definitions can be expanded upon to make them fit in the context of this thesis. This means that credit will be defined as *"The money lent or borrowed under a credit arrangement"* (Oxford University Press, 2014). A credit arrangement would then be the terms of agreement between a lender and a borrower, concerning maturity, compensation and size of the contract. In this thesis, banking is primarily defined as *"The business conducted or services offered by a bank"* (Oxford University Press, 2014). "Business" and "services" would, in the context of this research, be referring to the extending and acquiring of credit. Whereas credit in itself just refers to the lending or borrowing of money between any group or individual, banking refers to the institutionalization of credit. Basically, this thesis treats banking as credit made into a business.

As stated earlier, credit comes from the Latin word "credo", meaning I believe. This refers to the relationship between the borrower and lender, which is based on trust (Ferguson, 2008). A

lender's trust is not only expressed by whether he is willing to issue a loan in the first place, but also by the terms he agrees on with the borrower, after the lender has agreed to lend an amount of money. Three major factors, which play a role in these credit arrangements, are: the size of the loan, the maturity and the compensation. Obviously, the size of the loan and its maturity are linked to trust, since they express how much money the lender is willing to risk as well as how fast he wants the money back. The potential borrower will then be granted or refused the loan, depending on whether the lender trusts that he is able to meet the required obligations. The compensation, or interest, of the loan is based on the perceived risk that the lender faces and it also serves to compensate for foregone consumption in the present (Burda & Wyplosz, 2009). The lender obtains a risk premium on the money which he lent to the borrower. Therefore, the interest on a loan can be seen as the price of money, since it is the price the borrower has to pay in order to obtain the loan (Fisher, 1974). The Oxford dictionary defines interest as *"Money paid regularly at a particular rate for the use of money lent, or for delaying the repayment of a debt"* (Oxford University Press, 2014). When looking at potential borrowers, lenders often address six criteria: character, capacity, collateral, conditions, credit and capital. These are also known as "the six c's" and they serve to get a good overview of the personality, pay-back ability, credit history and net worth of an individual as well as his commitment to the loan in light of economic and regulatory conditions (Whitney, 2006). This shows that trust and credibility play a major role in credit and banking and that trust is an integrated part of the relationship between lender and borrower.

Western European History

This thesis is about the development of credit and banking over time starting from the Italian renaissance and ending at eighteenth century England. Therefore seeing that this thesis is very historically oriented, it seems fitting to include a brief description of the historical periods, which will be researched. In order to understand the results, it is important to have a good overview of the political, economic and social atmosphere of the different countries in their respective time periods.

First of all, there is the Italian renaissance, spanning the fifteenth to the seventeenth century, where the story begins. The Italian renaissance marked the end of the medieval period and the start of a new flourishing society. Renaissance literally means rebirth and that was exactly what it was. A rebirth of art, science, religion and culture, where people rediscovered the classics and regained their love of knowledge and wisdom. Fifteenth century Italy was divided into self-governing city states (History.com Staff, 2010). Florence was one of those city states and it became the financial centre of western Europe, most notably through the work of the bankers and financial experts within the Medici family (Ferguson, 2008). Through the work of people like the Medici, the city state of Florence was able to leave the agricultural, medieval economic system behind and to flourish into a capital of banking and commerce, setting the prime example for modern banking. Giovanni de Medici himself was a wool merchant who found a new calling in banking. It were the members of the Italian Medici family who, among other families like the Pazzi and Salviati, had a major influence on the development of banking in renaissance Italy (Wynn, 2010). The rest of Europe would follow soon, after the example set by Italian families like the Medici. The main difference between the age of the renaissance and the medieval age was the view of life. The medieval ages were characterized by a view of life where God and religion always were the centre of everything that existed. However, the renaissance changed that by introducing humanism. Humanists, as the term might already suggest, do not see God as the centre of all life, but they see the individual as the centre of its own universe. Instead of seeking religion and asceticism, humanists sought for knowledge and pleasure. (History.com Staff, 2010). This way of thinking would spark an economic rebirth, which would change the world forever. The age of the renaissance came to an end because of battles for the control of the Italian peninsula and because of the Catholic Church, who sought to clear Italy of humanism, which was seen as a heresy against the Church. However, the effects of the renaissance were not to be stopped by any means and they are still visible in the entire world to this day. One of those effects is the way modern banking is organized and conducted. The reason that the Italian renaissance is one of the chosen research periods is because that which we know as modern banking, started in renaissance Italy. Italian families like the Medici can be seen as the pioneers, who set the stage for the modern banking industry. Therefore, it is

important to examine this period, since one has to understand where banking came from in the first place when discussing its development in later times.

Secondly, there is the Dutch golden age of the seventeenth century. The Dutch golden age marked an era of economic wealth and national pride in the Dutch Republic. The financial success of the Dutch Republic is often attributed to the success of the Dutch East India Company, which dominated the trade in the East Indies and which is known today as the first multinational in the world (Kromhout, 2001). However, the Dutch Republic also had a thriving financial market. Amsterdam became one of the major financial centres of the world, due to the importance of the "wisselbank" or bank of exchange, which functioned as a central bank in the Dutch Republic (Dekkers, 2009). However, wars and competition turned out to cause the competitive downfall of this wealthy nation. After the "rampjaar" or year of disaster in 1672, the economic health of the Dutch Republic took a huge blow after being attacked by England, France and the dioceses of Münster and Cologne. The Dutch people expressed their grief in the following manner: The people irrational, the government desperate and the country beyond the possibility of rescue (Panhuysen, 2006). Nevertheless, there can be no denying that the Dutch Republic also played a major role in the development of credit and banking. Whereas the concept of banking in itself developed in renaissance Italy, the bank of exchange in Amsterdam is seen as the first central bank in the world. (Quinn & Roberds, 2005). Therefore, it seemed fitting and even necessary to research the Dutch golden age in addition to the Italian renaissance.

Finally, this thesis also covers eighteenth century England. It was after the Glorious Revolution of 1688, when England started to build upon the success of the Dutch Republic. After the disaster year in 1672, the Dutch Republic was not able to maintain an economic position like that of England. However in 1689, Stadtholder William III, who was of Dutch descent, became King of England, Scotland and Ireland. King William III imported the financial innovations from the Dutch Republic into England, where the system of banking would develop into a more modern form, resembling that which we know today (De Vries & Van der Woude, 2005). Furthermore, where Italy had the renaissance and where the Dutch Republic had the golden age, England had the industrial revolution. The industrial revolution opened the doors for mass

production and caused an enormous economic expansion. Not only did the production of goods increase drastically, but infrastructure and banking all saw major improvements due to innovations, which were amazing for that time. However, not all was well. Due to the rise of mass production, employment conditions did not turn out for the better. Even though the country itself increased in economic wealth, much of the working class did not see their living conditions improve with it. The wages were low, the jobs were dangerous and repetitive and the atmosphere was unhealthy (History.com Staff, 2009). Seeing that the country's economy grew with their wages staying low, how did this affect the people's trust in the financial system?

In summary, one can recognize three steps in the development of credit and banking, which will be discussed in this thesis. The first step is the origin of banking in the Italian renaissance, where pioneers like the Medici set the first stage from which the modern system of banking would develop. The second step is the origin of the central bank in the Dutch golden age, which marked a new era in international banking. The third step is the actual development into modern banking, which started in eighteenth century England. These three periods all can be seen as major stages in the development of credit and banking. Therefore, the examination of the relationship between trust and the development of credit and banking would be most relevant if examined within the context of these three historical periods.

Hypotheses

In light of this research, the following hypotheses have been formulated:

1. The development of credit and banking in western Europe has been the result of general distrust in the use of credit, sparking the need for a more sophisticated credit system, providing more security and opportunities to both lender and borrower.

2. Economic, political and social events like crises, wars and unemployment, but also economic growth and political stability and/or the expectation of such events have had a significant impact on people's trust in the financial system and in the use of credit and this has had an effect on the development of credit and banking.

The first hypothesis covers the question as to whether trust actually played a role in the development of credit and banking in western Europe. The first hypothesis also deals with the question as to whether people approved of using credit in the first place and as to whether a possible disapproval of credit sparked the need for a financial system in which they were more secured when it came to lending money. The second hypothesis deals with the question as to whether certain important events caused a significant shift from distrust to trust in the financial system of western Europe and vice versa, and also as to whether this would affect the development of credit and banking in any way. Both hypotheses serve as to get a better understanding of the effects of trust on the development of credit and banking and both of them are meant to cover the developments within the specific time periods as well as the developments within the shift of one time period to another. These hypotheses will be either accepted or rejected based on the results found by studying the relevant academic literature.

Methodology

This research is entirely based on the qualitative study of relevant literature, which is used to create a certain historical, social as well as financial framework. The goal is to apply that framework on certain, specific researched time periods and countries in order to see if there is a connection between trust and the development of credit and banking over time. First of all, a variety of sources were consulted in order to create a theoretical framework in which concepts like trust, credit and banking and western European history could be defined in order to apply these concepts to the findings, which were to be found later on in the research. Secondly, a selection of academic literature was made to serve as the main texts, which were to be consulted throughout the research. First of all, historical sources were needed, in order to examine how credit and banking developed in the specific time periods in the first place. These texts are: *"The ascent of money"* by Ferguson; *"Nederland 1500-1815"* by De Vries and Van der Woude and *"A history of banking in all leading nations: Great Britain"* by Macleod. In addition, literature on trust was needed in order to be able to make the connection between trust and the findings on the development of credit and banking which were found through the use of the

previously mentioned historical literature. The main sources on trust were: *"Trust as a social reality"* by Lewis and Weigert and *"Trust and credit"* by Duarte, Siegel and Young. All of the previously mentioned sources were the main ones to be consulted, however not necessarily the main texts to be referred to. In addition to the main literature, a variety of other relevant texts were used, such as news articles, blogs and educational articles. Historical information as well as information on trust from different authors were compared to each other, in order to come to credible results. Therefore, one could understand this research to be a text-critical approach by comparing sources and selecting the right information, in order to get to credible conclusions.

Results

Italy

Surprisingly, it were not Italians who started the banking industry in renaissance Italy. The first moneylenders in Italy actually had a bad reputation as they were part of an unpopular ethnic minority. The first people to monopolize the lending of money in renaissance Italy were Jews in Venice (Ferguson, 2008). The reason for this was that the Catholic Church prohibited the charging of interest on the basis of a verse in Deuteronomy 23 of the Holy Bible, where it says: *"You shall not lend upon interest to your brother, interest on money, interest on victuals, interest on anything that is lent for interest."* (Deuteronomy 23:19, Revised Standard Version). Therefore, the charging of interest was seen as a type of usury. However, the reason why Jews were allowed to lend at interest was the interpretation of the verse in Deuteronomy. The Church has always interpreted "brothers" to mean any human being or at least all Christians. However, the Jews interpreted the word "brother" only to mean a Jew, which made lending at interest to non-Jews legal. Jews had an unpopular reputation and Jewish moneylenders were seen as pariah. The people of Venice did not trust them. They were seen as foreigners and non-Christians and were even forced to live in exclusion in the ghettos of Venice (Ferguson, 2008). Especially in a time when city-states rivalled against each other, the trust in foreigners was not at an all-time high. The distrust in Jewish bankers was not only due to an anti-Semitic atmosphere but it was also strengthened by the doctrines of the Catholic Church. Theologians

like Thomas Aquinas compared the charging of interest to crimes like theft and homicide, which made the Jewish moneylenders look like financial criminals. Of course, the Jewish moneylenders were not oblivious to their reputation, therefore they specialized in small, short-term loans instead of larger long-term loans, because of the high risk of default (Bernstein, n.d.). The Jewish moneylenders knew that if the interest rates would be set too low, they would not make a profit. But if they would set the interest rate too high, the risk of default would be very high as well. From this dilemma it becomes clear that it were not only the borrowers who distrusted the lenders, but also the lenders who distrusted the borrowers. However, since the Jews were such an unpopular ethnic minority, the question still stands as to why borrowers would not just simply default on their loans. Also, why would the Jewish moneylenders trust the Italian borrowers not to default? According to Duarte, Siegel and Young, the mutual distrust between lender and borrower would have to result in very few loans being contracted. The answer herein lies in the concept of homo economicus. In fact, the moneylending system was necessary for cities like Venice and Florence. Both cities were dependent on overseas trade (The Economist, 2009). The merchants needed to loan money in order to obtain the necessary ships and crew so that they could continue trading. However, ships could sink and the Jewish moneylenders required a compensation for this type of risk in the form of interest. In other words, the Venetian merchants needed the money for their business operations not only now, but also in the future, which made them careful not to default, while the Jewish moneylenders needed the compensation for risk in order to profit from their business. One could say that the mutual desire for a higher monetary benefit forced both parties to trust each other and to engage in the activity of the borrowing and lending of money. Also, the knowledge that both borrower and lender would affect each other's payoff forced them to trust each other. This is in line with the concept of the prisoner's dilemma as described by Osborne (2000). However, the trust of the Jewish moneylenders only went so far. Earlier a dilemma was mentioned, which described the trade-off between a higher profit and a higher risk of default for Jewish moneylenders. Trust related problems like this made that the Jewish moneylending operations did not grow out into very large banking systems. This, however, would not apply to families like the Medici. It were the Medici who made the banking industry great and powerful. In 1397,

Giovanni de Medici saw an opportunity to start as a foreign exchange dealer in the city of Florence. Giovanni saw a loophole in the doctrine of the Church concerning interest. Instead of charging interest for the lending of money, Giovanni simply asked for a commission when converting one currency to another. If the client wanted to have an advance on the converted currency, he would simply have to pay a higher commission. Likewise, clients could also deposit currency into the Medici Bank for which they would receive a compensation called “discrezione”, which was a discrete form of interest (Ferguson, 2008). The Medici, however, saw no reason to put more trust into the borrowers than the Jewish moneylenders would have done. But instead of keeping their loans small and short-term, they diversified their business into several partnerships. These partnerships were also based on trust, however the potential partners had to prove themselves first. The Medici made sure that the partners of the bank had to be merchants with a good reputation and with a stable credit history (Bernstein, n.d.). This resembles Whitney’s system of the six c’s, since trust here is not based on a social factor like race or on pure economic benefit, but rather on the examination of the professional history of the individual. This way, the Medici could expand their business beyond Florence, which reduced their risk and also the required compensation for it. Whereas the distrust from the Jewish moneylenders forced them to keep their business small, the Medici handled their distrust in a more efficient way, expanding their operations (Ferguson, 2008). It were bankers like the Medici, who made Florence flourish and this helped them to gain the trust of the citizens. Whereas the Jewish moneylenders did not have a good reputation, bankers like the Medici enjoyed fame and praise. It were the Italian bankers who paid for the renaissance by, for example, paying for the painting of enormous paintings in church buildings (Allsop, 2011). Ferguson (2008) as well as Mount (2011) back this up by claiming that the bankers of Italy paid for the renaissance and that they were one of the primary reasons why the renaissance was possible in the first place. The Medici did such a good job in gaining the trust of the public that Cosimo de Medici was even called “Pater Patriae”, or Father of the Fatherland. The citizens of Florence even remained loyal to the Medici family, when the Pazzi, another banking family, tried to discredit them (History World, n.d.). For a time, the Medici were even in charge of the papal finances (The Economist, 1999). Since the Medici enjoyed so much trust from the public

and since their banking operations flourished and were what made Florence great, how do we explain the collapse of the Medici Bank? Does the answer fit into a framework of trust? The answer to the last question is yes. The later heirs to the position of leader of the Medici Bank turned out to be incompetent and not suitable for the task. Of course, the wealth of Florence was dependent on the success of the Medici Bank and financial misconduct on part of the Medici would mean bad business for the city of Florence as a whole. The Florentines criticized Lorenzo de Medici by saying that his father Piero and his grandfather Cosimo would gain more money than Lorenzo would have lost, using the same amount of funds (Simonetta, 2008). The trust in the Medici family declined and met an all-time low when a later heir, also named Piero de Medici, sought to negotiate with the invading French on his own accord (History World, n.d.). Surprisingly, the downfall and eventual collapse of the Medici Bank did not result into a downfall of the banking system as a whole, even though it were the Medici who made the business flourish in Florence. Professor emeritus of history at Hopkins university in Baltimore, Richard Goldthwaite, even goes on to state that the entire history of Florentine banking could be written without mentioning the Medici at all (The Economist, 2009). It is not that the Medici did not play an important role in Florentine banking. On the contrary, they were one of the most important players on the stage. However, it is interesting to note that the collapse of the Medici Bank has had little impact on banking as a whole. It seems that the people of Florence had remembered the wealth and opportunities, offered by the banking system. The Medici may have had lost the trust of the Florentines, the system of banking certainly had not.

The Dutch Republic

The fact that the fall of the Medici did not negatively affect people's trust in the banking system in a significant way became apparent in the way it had spread across Europe. Even in the Dutch Republic, merchants began starting up their own banking practices, after the manner of the Florentines during the Italian renaissance (De Vries & Van der Woude, 2005). However, it were not these merchant banks that made the Dutch Republic into the financial centre of the world. The Dutch trade, domestic industry and war industry were blooming in the seventeenth century and the people enjoyed the wealth brought to them by the Dutch merchants (Tegenlichters,

2012). However, whereas the Florentine florin was a stable and respected coin, the situation was not as stable in the Dutch Republic as it was in Florence. In the Dutch Republic there was not one type of coin in circulation, but rather a large multitude of them. Seeing that Amsterdam had become a major centre of international trade, merchants brought their currency from all over the globe, which made the monetary situation very disorderly (Dekkers, 2009). Also, the Dutch domestic coin, the Dutch guilder, had not yet been standardized. It became a profitable activity for minting institutions to lower the level of precious metal present in a coin (Petram, 2011). Quinn and Roberds (2005) add to this by stating that foreign minters also knew of the profitability of the lowering of the level of precious metal in coins, which resulted in a massive inflow of so-called "light coins" from abroad into the Dutch Republic. At first, a major part of Dutch banking was executed by the so-called cashiers. These were a kind of small banks where domestic and foreign merchants could deposit money and have money transferred from one account to another. The cashiers also lent money to their clients. This relationship between banker and client was largely built on trust. Merchants would only deposit money if they knew that they could trust the cashier. The cashier, on the other hand, would only lend money to trusted and respected merchants. In other words, both sides had to maintain a reputation of financial credibility. However, these cashiers proved to be unreliable. They were accused of selling coins with full value against a higher rate, while performing their banking operations using light and worn out coins. The governing citizens of Amsterdam, the "Vroedschap", expressed their discontent, saying that deception was lurking under the operations of the cashiers (Dekkers, 2009). Eventually, merchants were not sure whether their coins were of full value or not. The increasing distrust in the cashiers as well as in the minting institutions resulted in inflation in the Dutch Republic, which made Dutch goods relatively expensive compared to foreign goods. Obviously, this was bad for the merchants and since the Dutch Republic was built on trade, this was bad for everyone. It is, therefore, not strange that this event was named a chaos of coinage (Petram, 2011). In order to stabilize the Dutch domestic currency, the city of Amsterdam founded the "Amsterdamsche Wisselbank", or the Exchange Bank of Amsterdam in 1609, after the example of the exchange bank in Venice. Later, the cities of Rotterdam, Delft and Middelburg would do the same. The city of Amsterdam knew that it had to gain the trust of

the merchants first, before the Bank of Amsterdam could be an effective institution. The reason for this was that although the cashiers were not always reliable, at least the merchants knew who they were, whereas the Bank of Amsterdam was an anonymous institution. In order to gain the trust of the merchants, the Bank of Amsterdam guaranteed all deposits and also guaranteed that all withdrawals would be paid out in coins of full value, the so-called “bank guilder”. On top of that, the city of Amsterdam decided to vouch for the bank. Seeing that Amsterdam was a wealthy city in that time, this was believed by the merchants and by whoever who wished to make use of the services of the bank to be a credible signal (Dekkers, 2009). The goal of the Bank of Amsterdam was also to replace the cashiers. The city of Amsterdam tried to enforce this by making it a requirement for exchanges of above six hundred guilders to be handled by the Bank of Amsterdam, using the bills of exchange, which were developed in renaissance Italy. However, the stabilisation of the Dutch money market was a slow process. The problem was that the Bank of Amsterdam did not pay interest on deposits and the bank was not allowed to borrow or lend money, in contrast to the exchange banks of Delft, Middelburg and Rotterdam and also the cashiers. For this reason, the cashiers never really disappeared, since merchants still relied on their credit services (Petram, 2011). However, multiple sources show that the Bank of Amsterdam still grew out into a major monetary institution in Europe. According to both Petram (2011) and Dekkers (2009), the bank grew out into an institution that could regulate the quantity of money in the Dutch Republic and that it started to function as a central bank for the entire city of Amsterdam. Quinn and Roberds (2005) go on to state that the Bank of Amsterdam was even praised by the classical economist, Adam Smith and Dekkers (2009) states that the Bank of Amsterdam made the city of Amsterdam into one of the major financial centres of the world. Undoubtedly, the trust that the people of Amsterdam as well as foreign merchants had in the Bank of Amsterdam is what made it into such an international success. The bank had gained the reputation of a credible institution, since it had brought monetary stability and a guarantee of deposits and since it always had cash in the vaults. The fact that precious metal also became an accepted form of deposits, guaranteed the coverage of the deposits of merchants even more. The bank maintained its reputation, since it survived many financial crises, for example the crises of 1672, 1720 and 1763 (Petram, 2011). 1672, for example, was the disaster year

when the Dutch Republic was simultaneously attacked by France, England and the dioceses of Münster and Cologne. The war sparked massive panic concerning the future of the Republic among those who had made deposits into the banks of the Dutch Republic. The result was a financial crisis, sparked by a massive bank run. However, since the Bank of Amsterdam never extended credit, it had enough coverage to meet the needs of everyone who wished to withdraw their deposits (Tegenlichters, 2012). The banks of Middelburg, Delft and Rotterdam were less fortunate, since their amount of cash was not sufficient to meet the demand, because they had lent out a part of their money supply (Dekkers, 2009). The reason why Dekkers (2009) states that trust was everything, becomes apparent in the events after the disaster year of 1672. After 1672, the economy of the Dutch Republic went into a state of decline. The, up till then successful, Dutch East India Company was in need of funds and the Bank of Amsterdam decided to extend credit to it, even though it was a violation of the bank's policy. The city of Amsterdam also borrowed money from the bank and it used the same money to extend credit to other parties, which resulted in an accumulation of debt. This was a secret, which could not be kept for very long and when it came out, it greatly affected the reputation of the Bank of Amsterdam. A logical consequence, seeing that depositors no longer had the guarantee of total coverage of their deposits (Dekkers, 2009). The trust in the city of Amsterdam as well as in the Bank of Amsterdam was harmed even more after the bankruptcy of the bank Clifford and Sons, which was due to bad investments in the former colony of Suriname, as well as after the loss of the fourth Anglo-Dutch war. The bankruptcy of Clifford and Sons in 1773 made that foreign investors avoided the financial market of Amsterdam and that the city lost its position as the financial centre of the world (Petram, 2011). The fourth Anglo-Dutch war resulted in the fact that the income from the loans provided to the Dutch East India Company did not materialize, which in turn resulted into a liquidity crisis. The Bank of Amsterdam was forced to borrow money from private creditors at a high interest rate, resulting in an increase of taxes in the Dutch Republic. This all made that the value of the Dutch guilder dropped substantially (De Vries & Van der Woude, 2005). Even though the trust of the people in the Bank of Amsterdam had already decreased substantially, it met an all-time low after the French invasion of 1794. This invasion resulted in a massive financial panic in the Dutch Republic and in another bank run.

This time, however, the bank reserves of Amsterdam were not large enough to cover the demand. The Bank of Amsterdam had long lost its reputation of credibility and it could not reclaim the role of an active and meaningful institution until it was officially shutdown in 1820. The successor to the Bank of Amsterdam had already been founded in 1814 by King William I and is known as "De Nederlandsche Bank", or the Bank of the Netherlands (Petram, 2011).

England

According to Macleod (1896), the history of modern banking in England started in 1640. Before that year, merchants and nobles deposited their bullion in the minting tower of London. However, in order to finance the war on Scotland, King Charles I seized all the bullion, which amounted to the sum of 120,000 pounds. Of course, King Charles met with fierce opposition from the ones who initially owned the bullion and the initial owners agreed to lend him 40,000 pounds of the total sum, which had to be paid back at interest. The king eventually honoured the agreement, however the trust in the crown was gone. People started to store their bullion with their own cashiers, who turned out to be unreliable as well. The cashiers would either take the money with them when they were called for military duty or they would lend it out at interest for personal gain (Macleod, 1896). The people started to turn to the goldsmiths who had suitable means of storing precious metals and jewellery, due to their profession. People happily traded the inconvenience of carrying metal around for the convenience of storing their valuables at a trusted goldsmith (Positive Money, n.d.). In return for a deposit of coins or jewellery, the depositor would receive a paper statement, which stated how much he had deposited and that the depositor could withdraw his money at demand. The services of the goldsmiths became so popular, that these paper notes began to be used as currency. The reason for this, was that it was easier to directly pay with a piece of paper, than to go back to the goldsmith to collect all of the gold and silver. Also, the people knew that these "goldsmith notes", were fully backed up by their deposits. This was the beginning of the use of paper currency in England (The Money Reform Party, n.d.). Also, depositors could write notes stating that the goldsmith should transfer a certain amount of money from the depositors to another person. In modern terms, these notes are called cheques, which are basically notes containing

promises of payment to a person, by the banker, in name of the depositor. Seeing that these services became very popular among the people of England, this is proof that the goldsmiths were trusted, which allowed them to grow out to become bankers of good reputation. The goldsmiths themselves noticed that people would start to use their goldsmith notes as currency instead of withdrawing metals. This provided an opportunity; they were now able to lend out some of the deposits at interest, in order to make a profit. In summary, the services of the goldsmiths included accepting deposits at interest, making loans, issuing bank notes and accepting cheques. In short, these goldsmiths were the trusted forerunners of modern banking (Outing, 2010). The crown trusted the goldsmiths so much, that they were called upon to make loans to the government. However when the Dutch attacked England, a financial panic broke out, resulting in a bank run. King Charles II promised to pay back those who have lost their money, however he could not keep his promise and suspended the payment for a year. However, payments had still not been made, after the year of suspension had passed. In the end, the full principal of people's deposits would never have been repaid (Macleod, 1896). Merchants had been ruined, the people were in distress. Bruggeman (2012) states that, after the Glorious Revolution of 1688, when stadtholder William III of Orange had become King of England, he found the English economy to be a great mess. It was difficult to levy taxes, the import of gold and silver was not sufficient and the war with France demanded a serious amount of money for warfare. The King discovered that they were in need of 1.2 million pounds, in order to finance the war with France. Multiple attempts were made to raise money, but they turned out to be unsuccessful, according to Macleod (1896). In 1694, under King William III, the Bank of England was founded to stabilize the English economy. The foundation occurred by allowing six bankers to govern the bank in exchange for a 1.2 million pound loan at 8% interest, establishing the bank as a joint stock company after the Dutch model used for the Dutch East India Company. This first official national debt allowed the king to invest in a fleet for the war against France, which created jobs and stimulated the economy (Bruggeman, 2012). In 1708, the Bank of England acquired the monopoly on joint stock banking, meaning that all other banks were only allowed to have a maximum of six partners (Outing, 2010). After the industrial revolution, the demand for money increased due to increasing industrial entrepreneurship. This

resulted in a growing number of private and county banks. Also, the use of metal currency began to decline and paper currency began to take over. These banks were convenient, since entrepreneurs could deposit their money, the banks could make loans and the banks could stimulate the money in circulation. (Wilde, n.d.). However, entrepreneurs were sceptical of banks and preferred to get their funding elsewhere. This was because banks were prone to crises and overconfidence. Sometimes, banks would issue too much paper currency relative to their stock of gold and silver, which meant that their notes were not fully backed by the deposits. As soon as a little news leaked out relating to such a problem, a bank run would occur. The people remained cautious of banking. However, the Bank of England turned out to be a trustworthy institution and it proved itself by functioning as a stable factor during many financial crises. Therefore, the Bank of England came to be known as “the lender of last resort” (The Money Reform Party, n.d.). It is, therefore, not surprising that bank notes of the Bank of England, made other notes of no use, since they were always preferred over the private bank notes, according to Outing (2010). However, seeing that the over issuance of paper currency and the limit on the number of partners made that banks were more prone to failure, the Banking Act of 1826 was put into effect. This act restricted the issuing of notes by private banks. Also, it allowed for the foundation of joint stock companies, since its prohibition made that banks were not able to acquire the necessary resources to survive crises (Outing, 2010). The Bank of England continued to function as a private institution until it was nationalized in 1925. It underwent several developments after the nineteenth century, however these are beyond the scope of this thesis.

Conclusion

All of the previous results bring us back to the initial research question: *“To what extent was the development of the system of credit and banking in western Europe dependent on the people’s trust in the financial system, when we take the Italian renaissance as its point of origin?”*. For starters, we have seen that in all three countries; Italy, the Dutch Republic and England, the development of new systems of credit and banking was sparked by a general atmosphere of distrust in the financial environments of those times. However, it is important to note that

credit in itself was not the problem. In this research, no significant evidence was found, which proved that people disapproved of using credit, due to the risky nature which credit contains in itself. On the contrary, merchants were happy to use credit, since it was seen as a means with which they could invest and expand their business and bankers could also make good money with it. Rather, it was due to the bad reputation or misbehaviour of specific parties (e.g. Jews, cashiers, the British Crown), that trust was lost in the members of those specific parties, who happened to be important participants within the system of credit in their time. This, in turn, pushed the system of credit and banking into innovations, which provided more security to participants. Therefore, the first hypothesis; "*The development of credit and banking in western Europe has been the result of general distrust in the use of credit, sparking the need for a more sophisticated credit system, providing more security and opportunities to both lender and borrower."*, has to be rejected, since it implies a distrust in the use of credit in itself, which was simply not the case. Still, the parties who reclaimed the trust, which had been lost (e.g. the Medici, the Bank of Amsterdam, the goldsmiths and the Bank of England), had to prove their trustworthiness by providing credible signals and by proving themselves to be reliable. Interestingly, the rise and fall of the Medici Bank and the Bank of Amsterdam were due to the people's distrust in their predecessors as well as due to an increase and a decline of trust in those institutions, whereas the founding and development of the Bank of England was more due to political and economic necessity, rather than due to a distrust in the British goldsmiths. However, the reliability of the Bank of England was an important factor in its later development and is one of the reasons that the bank still stands today. During the course of all time periods, it has become clear that people's trust in the financial system was heavily influenced by political, economic and social events. The Medici Bank gained the trust of the people, because it brought economic prosperity to Florence. This made that the Medici could make the banking industry flourish. The bank runs in the Dutch Republic and in England were all due to wars and expectations of financial collapse and these resulted into new developments like the Banking Act of 1826. Therefore, the second hypothesis; *"Economic, political and social events like crises, wars and unemployment, but also economic growth and political stability and/or the expectation of such events have had a significant impact on people's trust in the financial system*

and in the use of credit and this has had an effect on the development of credit and banking.", is accepted. All things considered and in order to briefly and explicitly answer the research question, one has to conclude that trust was one of the primary drivers of the development of credit and banking in western Europe. According to the findings in this research, the emergence and disappearance of financial institutions and parties were, in most cases, due to the presence or absence of trust. Furthermore, the emergence of new institutions was also made possible by taking advantage of the distrust in other parties, by making oneself seem more reliable than the predecessor (e.g. the Bank of Amsterdam versus the cashiers). Perhaps, instead of asking in what ways trust played a role in the development of credit and banking, one should rather be asking in what ways it did not.

Limitations and Further Study

During the course of this research, a few limitations were encountered. Some of these limitations might have compromised the credibility of this thesis, while others simply point to opportunities for future complementary research. The first limitation to be discussed is the fact that the findings of this research all seem to point in the same direction. In other words, the sources, which were consulted for this research, all seem to roughly share the same point of view. This may make it seem as if the findings in this thesis are too one sided, which reduces its credibility. The problem was that during the stage of collecting information, no sources were found, which provided a view opposite of the ones eventually used for this thesis. Perhaps, if such a source were to be found, it could shed new light on the relationship between trust and the development of credit and banking in the relevant time periods and, perhaps, it could provide more credible research results. Secondly, the fact that the research had to be narrowed down a lot made that the findings in this thesis are not representative for the entire issue as posed in the research question. This thesis focusses mainly on the developments concerning the Medici Bank, the Bank of Amsterdam and the Bank of England. Even though these were some of the most important financial institutions in the history of banking, the narrowing down of the research to these three subjects caused two problems. First of all, the research of three subjects made that there was no room to cover all three in full detail, perhaps leaving out important

information, which could only be found by studying the subjects individually. The second problem was that even though these three subjects were some of the most important banking institutions in western European history, there were many other institutions that have also played a significant role. One could, for example, shed light on other banking families in Italy like the Pazzi and also on other important financial institutions like the Bank of Venice and the Bank of Sweden, the latter being the first official central bank. This issue, however, does not compromise the credibility of this thesis. Rather, it provides an incentive to either supplement this thesis by examining the three covered subjects individually and in full detail or to complement this thesis by researching the relationship between trust and the development of credit and banking in the context of another financial institution, not covered in this thesis. As a final suggestion, a deepening of the results of this thesis by studying the covered subjects individually and in more detail or an expansion of this thesis by studying a totally different subject is highly recommended for future study.

Bibliography

Allsop, L. (2011, September 22). *Tracing Renaissance Art to the Birth of Modern Banking*. Retrieved from CNN: http://edition.cnn.com/2011/09/21/world/europe/money-beauty-renaissance-florence/

Bernstein, M. (n.d.). *Change for the Church: Jews and Banking in Renaissance Italy*. Retrieved from Hashta: Jewish Voices on a Secular Campus: https://sites.google.com/site/hashtaumd/contents-1/banking

Besanko, D., Dranove, D., Shanley, M., & Schaefer, S. (2010). *Economics of Strategy.* Hoboken: John Wiley & Sons.

Bruggeman, R. (2012, November 27). *Geschiedenis van de Bank of England*. Retrieved from Is Geschiedenis: http://www.isgeschiedenis.nl/nieuws/geschiedenis-van-de-bank-of-england/

Burda, M., & Wyplosz, C. (2009). *Macroeconomics: A European Text* (5th ed.). New York: Oxford University Press.

De Vries, J., & Van der Woude, A. (2005). *Nederland 1500-1815: De Eerste Ronde van Moderne Economische Groei.* Amsterdam: Uitgeverij Balans.

Dekkers, G. (2009). *De Amsterdamse Wisselbank (1609 - 1820)*. Retrieved from Historisch Nieuwsblad: http://www.historischnieuwsblad.nl/nl/artikel/25037/de-amsterdamse-wisselbank-1609-1820.html

Driehuis, G. (2009, Oktober 12). *RIP: Hoe Pieter Lakeman DSB Failliet Liet Gaan (Update)*. Retrieved from Welingelichte Kringen: http://www.welingelichtekringen.nl/economie/22715/rip-hoe-pieter-lakeman-dsb-failliet-liet-gaan-update.html

Duarte, J., Siegel, S., & Young, L. (2009, April 3). *Trust and Credit.* Retrieved from Bauer College of Business - University of Houston: http://www.bauer.uh.edu/departments/finance/documents/trustandcredit.pdf

Ferguson, N. (2008). *The Ascent of Money: A Financial History of the World.* New York: The Penguin Press.

Fisher, I. (1974). *The Theory of Interest: As Determined by Impatience to Spend Income and Opportunity to Invest It.* Clifton: Augustus M. Kelly Publishers.

Frank, R. H., & Cartwright, E. (2013). *Microeconomics and Behaviour.* Berkshire: McGraw-Hill Education.

History World. (n.d.). *HISTORY OF THE MEDICI*. Retrieved from History World: http://www.historyworld.net/wrldhis/PlainTextHistories.asp?historyid=aa24

History.com Staff. (2009). *Industrial Revolution*. Retrieved from History.com: http://www.history.com/topics/industrial-revolution

History.com Staff. (2010). *Italian Renaissance*. Retrieved from History.com: http://www.history.com/topics/italian-renaissance

Kromhout, B. (2001). *Het Faillissement van 's Werelds Eerste Multinational*. Retrieved from Historisch Nieuwsblad: http://www.historischnieuwsblad.nl/nl/artikel/5748/het-faillissement-van-s-werelds-eerste-multinational.html

Lewis, D. J., & Weigert, A. (1985). Trust as a Social Reality. *Social Forces*, 968-969.

Macleod, H. D. (1896). *A History of Banking in all the Leading Nations, vol. 2 (Great Britain, Russian Empire, Savings-Banks in the U.S.).* Retrieved from Online Library of Liberty: http://oll.libertyfund.org/titles/bulletin-a-history-of-banking-in-all-the-leading-nations-vol-2

Mount, H. (2011, October 5). *Florence, Italy: The Bankers Who Built a City*. Retrieved from Telegraph: Travel: http://www.telegraph.co.uk/travel/destinations/europe/italy/florence/8807848/Florence-Italy-the-bankers-who-built-a-city.html

Osborne, M. J. (2000). *An Introduction to Game Theory.* Oxford: Oxford University Press.

Outing, R. (2010). *An Introduction to English Banking History.* Retrieved from The British Museum: https://www.britishmuseum.org/research/publications/online_research_catalogues/paper_money/paper_money_of_england__wales/english_banking_history.aspx

Oxford University Press. (2014). *Banking: Definition of Banking in Oxford Dictionary (British and World English)*. Retrieved from Oxford Dictionaries: Language Matters: http://www.oxforddictionaries.com/definition/english/banking?q=banking

Oxford University Press. (2014). *Credit: Definition of Credit in Oxford Dictionary (British and World English)*. Retrieved from Oxford Dictionaries: Language Matters: http://www.oxforddictionaries.com/definition/english/credit?q=credit

Oxford University Press. (2014). *Interest: Definition of Interest in Oxford Dictionary (British and World English)*. Retrieved from Oxford Dictionaries: Language Matters: http://www.oxforddictionaries.com/definition/english/interest?q=INTEREST

Oxford University Press. (2014). *Signal: Definition of Signal in Oxford Dictionary (British and World English)*. Retrieved from Oxford Dictionaries: Language Matters: http://www.oxforddictionaries.com/definition/english/signal?q=signalling#signal__12

Panhuysen, L. (2006). *Het Rampjaar 1672*. Retrieved from Historisch Nieuwsblad: http://www.historischnieuwsblad.nl/nl/artikel/6773/het-rampjaar-1672.html

Petram, L. (2011, June 30). *De Amsterdamse Wisselbank (1609-1820)*. Retrieved from IS Geschiedenis: Dagelijkse Historische Achtergronden bij het Nieuws: http://www.isgeschiedenis.nl/archiefstukken/de_amsterdamse_wisselbank_1609_1820/

Positive Money. (n.d.). *How Money Works: How We Got Here.* Retrieved from Positive Money: http://www.positivemoney.org/how-money-works/how-did-we-end-up-here/

Quinn, S., & Roberds, W. (2005, August). *The Big Problem of Large Bills: The Bank of Amsterdam and the Origins of Central Banking.* Retrieved from Federal Reserve Bank of Atlanta: http://www.frbatlanta.org/filelegacydocs/wp0516.pdf

Read, S., Sarasvathy, S., Dew, N., Wiltbank, R., & Ohlsson, A.-V. (2011). *Effectual Entrepreneurship.* Oxon: Routledge.

Simonetta, M. (2008, October 31). *The Medici Meltdown*. Retrieved from Forbes: http://www.forbes.com/2008/10/30/medici-banks-meltdown-oped-cx_ms_1031simonetta.html

Stanford University. (2007, October 22). *Prisoner's Dilemma*. Retrieved from Stanford Encyclopedia of Philosophy: http://plato.stanford.edu/entries/prisoner-dilemma/

Tegenlichters. (2012, April 10). *De Amsterdamsche Wisselbank (1609-1820)*. Retrieved from Tegenlichters: http://tegenlichters.wordpress.com/2012/04/10/de-amsterdamsche-wisselbank-1609-1820/

The Economist. (1999, December 23). *Millennium Issue: Banking - Those Medici*. Retrieved from The Economist: http://www.economist.com/node/347333

The Economist. (2009, April 16). *Renaissance Florence: Cradle of Capitalism*. Retrieved from The Economist: http://www.economist.com/node/13484709

The Money Reform Party. (n.d.). *A Brief History of Money.* Retrieved from The Money Reform Party: http://www.moneyreformparty.org.uk/money/about_money/history_of_money.php

Whitney, R. (2006). *Building Wealth: Achieving Personal and Financial Succes in Real Estate and Business without Money, Credit or Luck.* New York: Simon and Schuster .

Wilde, R. (n.d.). *The Development of Banking in the Industrial Revolution*. Retrieved from About.com: European History: http://europeanhistory.about.com/od/industryandagriculture/fl/The-Development-of-Banking-in-the-Industrial-Revolution.htm

Wynn, E. (2010, December 11). *The Medici's, Bankers that Influenced the Renaissance*. Retrieved from Hubpages: http://ericwynnus.hubpages.com/hub/TheMedicisBankersthatinfluencedtheRenaissance

Xin, Z., & Liu, G. (2013, October 16). *Homo Economicus Belief Inhibits Trust.* Retrieved from PLOS ONE: http://www.plosone.org/article/fetchObject.action?uri=info%3Adoi%2F10.1371%2Fjournal.pone.0076671&representation=PDF