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Trust in the New Economy – The Case of Finnish Banks

Abstract

The changing role of trust in the New Economy forms an interesting research area. The purpose of this work is to contribute this area with a study that focuses on the role of banks in the New Economy. The major part of this work is a case study about three banks operating in Finland. The purpose is to analyse the effect that the ICT has had on the processes of these banks since the beginning of 1990s and analyse the mechanisms and processes of these banks from the perspective of trust.

The work begins with a short theoretical part defining what is meant with the New Economy and trust and how the key elements of this work - the New Economy, trust and banking - are linked to each other from the perspective of economic growth. The key concept throughout the work is the changing role of trust in the New Economy. Our proposition is that the importance of trust is being emphasized in the New Economy. Also the role of banks may be changing in the New Economy. We argue that banks can increase the level of trust in the other sectors of the economy. This would contribute to economic growth outside the traditional role of banks as financial intermediaries.

The proposition relies in the assumption that banks are more trusted relative to for example online retailers and that the trust that people have in banks can be transmitted to third parties and other services if banks participate in the transactions. This assumption is "tested" empirically in the case-studies and the assumption is found to be supported by experiences of the Finnish banking sector.

The Finnish banking sector has undergone a profound restructuring in the 1990s and at the same time a large part of the services that the banks are offering has been transferred to electronic channels. Several drivers for this development can be identified. The Finnish payment intermediation system has been an important facilitator for the Internet banking services. Banks have actively promoted the electronic services by directing their customers to the new channels using service pricing and also the availability of different services. The new services have also provided clear benefits to the customers in terms of availability, price, and convenience creating incentives for the customers to learn to use the new service technologies. Also the payment culture in Finland has supported the use of electronic self-service channels.

Bank experts share a strong view that the institutional trust in banks is the fundamental source of trust in e-banking services. People trust in banks and bank services, but not in the new channels as such. Trust towards banks has not emerged overnight or due to one mechanism that banks have used. The trust that consumers have for a particular e-service is based on the institutional trust in banks.

The nature of trust as institutional rather than bank-specific implies that the increasing role of banks in the economy is a plausible future scenario. If banks have institutional trust that can be transmitted to third parties, then banks can increase the total stock of trust in the economy.

Keywords

new economy, trust, information society, information security

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Trust in the New Economy – The Case of Finnish Banks

Tiivistelmä

Luottamuksen muuttuva merkitys uudessa taloudessa on mielenkiintoinen tutkimusalue. Tämän työn tarkoituksena on antaa panoksensa tähän keskusteluun tutkimuksella pankkien roolista uudessa taloudessa. Käytännön esimerkkinä käytetään kolmea Suomessa toimivaa pankkia. Työssä analysoidaan tieto- ja viestintäteknologian vaikutuksia ja luottamuksen merkitystä pankkien toiminnassa 1990-luvun alusta alkaen.

Tutkimus alkaa lyhyellä teoreettisella osuudella, jossa selvitetään uuden talouden ja luottamuksen sisältöä sekä sitä, kuinka työn keskeiset elementit – uusi talous, luottamus ja pankkitoiminta – liittyvät toisiinsa taloudellisen kasvun näkökulmasta. Työssä kiinnitetään erityistä huomiota luottamuksen rooliin uudessa taloudessa. Oletamme luottamuksen merkityksen korostuvan ja pankkien roolin muuttuvan uudessa taloudessa. Näkemyksemme mukaan pankit voivat lisätä luottamusta myös muilla toimialoilla. Näin ne lisäisivät taloudellista kasvua muutenkin kuin toimimalla rahoituksen välittäjinä.

Näkemyksemme perustuu olettamukseen, että pankkeihin luotetaan enemmän kuin esimerkiksi verkossa toimiviin jälleenmyyjiin. Lisäksi oletamme, että pankkeja kohtaan tunnettu luottamus voi heijastua myös kolmansiin osapuoliin, mikäli pankit osallistuvat liiketoimintatapahtumaan. Näitä olettamuksia ”testataan” käytännön esimerkeillä ja ne saavat tukea suomalaisen pankkisektorin kokemuksista.

Suomalainen pankkisektori on ollut perusteellisen uudelleenjärjestelyn kohteena 1990-luvulla. Samalla suuri osa pankkien palveluista on siirtynyt sähköisiin kanaviin. Tälle kehitykselle on useita syitä. Internet-pankkitoimintaa on edistänyt erityisesti suomalainen maksunvälitysjärjestelmä. Lisäksi pankit ovat edistäneet aktiivisesti sähköisten palveluiden käyttöä ohjaamalla asiakkaitaan uusiin kanaviin palveluiden hinnoittelulla ja niiden saatavuudella. Uudet palvelut ovat tarjonneet asiakkaille selviä etuja saatavuuden, hinnan ja käyttömukavuuden osalta muodostaen näin houkuttimen uuden palveluteknologian oppimiselle. Myös suomalaisten maksutottumukset ovat tukeneet sähköisten itsepalvelukanavien käyttöä.

Pankkien asiantuntijat ovat vahvasti samaa mieltä siitä, että pankkien nauttima institutionaalinen luottamus on perusta myös sähköisiä pankkipalvelua kohtaan tunnetulle luottamukselle. Asiakkaat luottavat pankkeihin ja pankkipalveluihin, mutta eivät uusiin kanaviin sinänsä. Luottamus pankkeja kohtaan ei ole syntynyt yhdessä yössä eikä yhden tietyn toimenpiteen ansiosta. Asiakkaiden tuntema luottamus tiettyihin sähköisiin pankkipalveluihin perustuu pankkeja kohtaan tunnettuun institutionaaliseen luottamukseen.

Luottamuksen perustuminen pankkien institutionaaliseen asemaan eikä yksittäisen pankin erityispiirteisiin antaa viitteitä siitä, että pankkien merkitys taloudessa saattaa kasvaa tulevaisuudessa. Mikäli pankeilla on institutionaalista luottamusta, jota ne voivat siirtää kolmansille osapuolille, ne voivat samalla lisätä luottamusta myös laajemmin taloudessa.

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Trust in the New Economy – The Case of Finnish Banks

Referat

Hur betydelsen av förtroende ändrats i den nya ekonomin utgör ett intressant forskningsområde. Målet med denna studie är att bidra till forskningen genom att undersöka bankernas roll i den nya ekonomin. Undersökningen baserar sig på en fallstudie av tre banker med verksamhet i Finland. Syftet är att analysera vilken effekt informations- och kommunikationstekniken haft på bankernas verksamhet sedan början av 1990-talet med speciell vikt på förtroendet.

Undersökningen inleds med en kort teoridel och en redogörelse av de centrala begreppen ’ny ekonomi’, ’förtroende’ och ’bankverksamhet’ samt hur dessa är förknippade med varandra i ett perspektiv av ekonomisk tillväxt. Undersökningen fokuserar på hur begreppet förtroende förändrats i den nya ekonomin. Vi utgår ifrån hypotesen att betydelsen av förtroende växer i den nya ekonomin och att också bankernas roll ändras. Enligt vår uppfattning kan bankerna genom sin verksamhet öka förtroendet för andra branscher inom näringslivet. På detta sätt påskyndar bankerna den ekonomiska tillväxten vid sidan av deras traditionella roll som förmedlare av finansiering.

Vår uppfattning grundar sig på ett antagande att bankerna åtnjuter större förtroende än t.ex. återförsäljare på webben. Vidare antar vi att det förtroende som människorna har för bankerna kan överföras på tredje parter och andra tjänster förutsatt att bankerna deltar i verksamheten i fråga. Antagandet har testats i empiriska fallstudier och stöds av erfarenheter från den finska banksektorn.

Den finska banksektorn har genomgått en genomgripande omstrukturering på 1990-talet och på samma gång har en stor del av banktjänsterna flyttats över till elektroniska kanaler. Orsakerna till denna utveckling är många. Det finska systemet för betalningsförmedling har gjort det lätt att införa banktjänster på webben. Bankerna har aktivt främjat användningen av de elektroniska tjänsterna genom att dirigera kunderna till de nya servicekanalerna dels med hjälp av prissättning, dels genom att erbjuda ett omfattande serviceutbud. De nya serviceformerna har gett kunderna klara fördelar i fråga om tillgänglighet, pris och lätthanterlighet. De har också sporrat kunderna att lära sig ny serviceteknik. Betalningskulturen i Finland har för sin del gynnat användningen av elektroniska självbetalningskanaler.

Bland bankexperter finns en stark åsikt att det institutionella förtroende som bankerna åtnjuter ligger som grund även för förtroendet till elektroniska banktjänster. Människorna litar på banker och banktjänster, inte på de nya kanalerna i sig. Tilliten till bankerna har inte uppkommit över en natt eller till följd av en enstaka rutin, tjänst eller transaktion. Förtroendet som kunderna hyser för en viss elektronisk banktjänst baserar sig på ett övergripande förtroende för banker.

Att förtroendet snarare är institutionellt än bankspecifikt implicerar att bankernas roll inom ekonomin sannolikt kommer att öka i framtiden. Om bankerna åtnjuter ett institutionellt förtroende som de kan överföra på utomstående tredje parter, kan de även öka förtroendet för den nya ekonomin.

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Preface

The new economy and information society are embedded with expectations of competitiveness and wealth. At the same time they raise concern and uncertainty. Therefore trust – or the lack of it – has emerged at the centre of several public and private sector strategies.

This report elaborates the role of trust and information security in the new economy. The research is focused on three banks in Finland as banking illustrates a sector where trust and information security are critical elements of business.

The research project is closely linked to a seminar on ”The Economics of Trust” organised by the Ministry of Trade and Industry and the Ministry of Transport and Communications of Finland in cooperation with the OECD in May 2004.

We hope that the report provokes discussion on the role of trust in the new economy and contributes to the research on the subject. We also want to thank the researchers who prepared the report and the banks that participated in the project.

Helsinki, 16 March 2004

Tapio Virkkunen
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1. Introduction

According to an opinion poll 57 % of American consumers believed that the United States had entered “a new kind of an economy” that is “significantly different from the industrial economy” in March 2000 (Business Week 2000). Public discussion about this new-economy age was vivid at that time. The recession that followed has since shifted interest towards other issues but the fact that the economy is undergoing a period of transformation is still arguably true.

The developments in information and communication technology (“ICT”) and the globalisation of businesses have been central to this transformation. ICT has had an effect on production processes in many industries, including banking. We argue that the importance of trust has been underscored by this development. Of course trust has always been an essential part of human life but the adoption of ICT and the subsequent emergence of, for example, the global electronic market place has highlighted its importance.

These two issues, the New Economy and trust, form an interesting area for research. The purpose of this work is to this research with a study that focuses on the role of banks in the new economy and with an emphasis on trust. The major part of this work is a case study about three banks operating in Finland. The purpose is to analyse the effect that the ICT has had on the processes of these banks since the beginning of 1990s and analyse the mechanisms and processes of these banks from the perspective of trust.

The motivation for this focus is twofold. Banking is an industry that is heavily dependent on trust. In addition banks in Finland nowadays offer a variety of e-services to third parties not directly connected to traditional banking. We argue that it is possible that this development will broaden the role of banks in the economy.

This work begins with a short theoretical part defining what is meant with the New Economy and trust and how the key elements of this work - the New Economy, trust and banking - are linked to each other from the perspective of economic growth. The key concept throughout the work is the changing role of trust in the New Economy.

The empirical part following the theoretical discussion is the central focus of this work. Eight bank experts from three Finnish banks were interviewed. Two of the banks, Nordea and Sampo, are large ones, while the third one, eQ Bank, is a smaller one. The purpose is to introduce the current status of the banking sector in Finland as far as the adoption of ICT and the evolution of different processes and services is considered. The other major purpose is to “test” empirically whether the propositions of the theoretical part are relevant from the real world perspective.

The work proceeds as follows: The next section defines the concepts of trust and the New Economy. Section three links these central concepts and banking together from the perspective of economic growth and develops propositions about the changing role of trust and banks in the New Economy. The fourth section presents the empirical findings and the last section contains our conclusions.

2. The New Economy and Trust

2.1 The New Economy

The definition of the New Economy and the discussion in this section draws heavily on Pohjola (2002). The transformation of the economy has been given many names. These include “network economy,” “digital economy,” “knowledge economy” and so on. The New Economy can be related to at least two central concepts – globalisation and the revolution of ICT.

Globalisation is the first trend that defines the New Economy. The market-based economic system has spread around the world since the collapse of socialism. Today, international trade and investment play a greater role in most of countries than they did 15 years ago. Average barriers to international trade have shrunk from the post second world war era of 40 per cent to the current level of less than 4 per cent. This naturally has had a large impact on the structures of different economies.

The concept of globalisation is not restricted to the macro-level in this context. The internationalisation of different businesses is at the heart of globalisation. Of course the changes in trade and other macro policies were needed to make the start of the process possible but at the moment it can be argued that the most relevant trend as far as globalisation is concerned is the internationalisation of individual businesses. Financial markets are a good example of this. The process of deregulating and internationalising the financial markets had already begin in the 1960s in some of the industrialised countries (Harris and Pigott 1997).

The second trend defining the New Economy is the revolution of ICT. ICT has been around for at least 50 years but the rapid improvement in quality and the decline in prices have made the 1990s different from the previous decades. The combination of these two trends has led to such large scale changes that the term New Economy can be justified.

We can recognize at least three effects of ICT on the economy. The first effect is the expansion of the ICT industry itself which is evident, for example in Finland. The second effect is the impact from increased investments in ICT in other industries. Lastly, and as is argued later, most importantly, ICT can increase the multifactor productivity in every industrial sector because of the diffusion of ICT applications which reduce transaction costs, combine labor and capital more effectively and derive efficiency gains from organizational improvements (Visco 2000).

It should be remembered that some of the hype that surrounded the discussion about the New Economy during the last boom was not warranted. For example knowledge and innovation have always been the keys to economic progress. Also networking as such is not a new phenomenon. However it is true that the Internet is the first global marketplace and it can be used arguably to link together the two trends. It is also true that the stock of knowledge has grown as well as the methods of analysing the

information that is available. Hence, the term "knowledge economy" which has been related to the New Economy can be used to describe the nature of the economy these days.

The most fundamental "truths" about the economic system have not changed in the New Economy. Rational consumers still maximize their welfare and factors of production are combined in different production processes in order to serve consumers with goods and services that they demand. Recent development has also shown that for example business cycles have not disappeared as some suggested a couple of years ago. The measurement of the New Economy is an interesting question. It is argued below that if we have really entered in to a New Economy then growth accounting should eventually be able to capture this change. The New Economy demonstrates its strength if the level of sustained growth jumps upwards (the trend-rate of economic growth) but it is certain that business cycles have not disappeared.

Then how do we measure the New Economy? To what extent can one find empirical evidence of the revolution in the economy and for example compare the developments in different countries? The change towards the New Economy needs to by quantified and captured in some measurable indicators if one wants to analyse objectively, for example, the changing role of trust between the "old" and New Economy.

The improvement of ICT was defined above as the second major element of the New Economy. The improvement of ICT relates to both the quality of equipment and software as well as to the sharp decline in quality adjusted prices. This of course leads to rationally behaving consumers substituting ICT equipment and services for other goods and services.

ICT is both an input and an output in different sectors of the economy. Koski, Rouvinen and Ylä-Anttila (2002) find that, in 1997, ICT industries accounted for 3-4 per cent of employment, 6-9 per cent of value added, 10-25 per cent of exports and 25–40 per cent of research and development expenditure in the business sectors of the EU, Japan and United States. The variation that exists between individual countries[1] in these numbers can be interpreted as an indication that different countries are in different phases of the change towards the New Economy.

The popular impression among policy-makers and others is that production, employment and export shares are the relevant measures of the New Economy. However, trade statistics in Koski, Rouvinen and Ylä-Anttila (2002) show that the United States is a net importer of ICT despite the fact that it is the leading country in ICT research and development. There are rational explanations for this phenomenon but, not going into these details, the point to be learned from this is that, contrary to the public view, the share of ICT in the national output alone is not a sufficient measure of the New Economy.

A second measure that can be identified, quite naturally, is the use of ICT. In a comparison consisting of 51 countries in Pohjola (2002), the average spending ratio of

[1] The respective numbers for Finland according to the same study were: 5.6 per cent of employment, 8.3 per cent of value added, 19.6 per cent of total exports and 51 per cent of R&D.

ICT spending to GDP is found to be 5.0 per cent. The disparities in these ratios are quite large. It is found in the study that ICT spending is strongly correlated with the level of income but significant disparities also exist between countries at similar income levels. This is a second indication about the different phase of the New Economy revolution in different countries.

It has been argued that the usage of Internet provides a link between ICT and globalisation. Also this usage displays very large regional disparities. According to Nua ltd. (2001) 407 million people in the world were "online" in November 2000. Every second person is connected to the Internet in North America but in Africa the share of persons with Internet access is something of a magnitude of four in a thousand. In Europe the figure is about 30 per cent. The figures speak for themselves as far as the New Economy discussion is considered.

All of the aspects discussed above are important. However, it should be remembered that the final "test" about the revolution in the economy is whether it can be identified as contributing to productivity and economic growth. The change in production technologies as such is not so interesting. It is the productivity, economic growth and the increase in welfare that matter in the end. This is something that should be remembered when talking about the New Economy and progress in ICT.

Jalava and Pohjola (2002) find that about two-thirds of the recent improvement in labour productivity can be attributed to ICT in the United States. Thus, in the U.S. the case for an ICT-revolution-led shift to the New Economy seems to be finding support from fundamental statistics. However, the same is not necessarily true in Europe. Jalava and Pohjola (2002) show that the direct contribution from the use of ICT to output growth in the Finnish market sector has increased from 0.3 percentage points in the early 1990s to 0.7 points in the late 1990s. However, unlike in the United States, there has been no acceleration in the trend rate of labour productivity in Finland. Jalava and Pohjola conclude that in this sense we have not yet seen the New Economy demonstrating its strength in Finland or as a matter of the fact, anywhere else outside the United States.

This is something that should be kept in mind also in the framework of this work. The changing role of trust in the New Economy and the role of banks are important questions but until now the macro effects of the New Economy have not been clearly visible in the Finnish data.

To conclude the New Economy can be summarised in two central trends that together are expected to change the economies so that the term New Economy is justified:

- The globalisation of economies and businesses

- The revolution of ICT

2.2 Trust

What does the word 'trust' mean? What is the linkage between trust and the economy? The answer to these questions may sound clear at first but if one thinks about these questions more thoroughly it is easy to see that this first impression may be deceiving. There exist several studies that concentrate on the different concepts and definitions of trust so the discussion in this work will be limited in length. However, for the purpose of this work it is beneficial to define what is meant by the word 'trust' in this work. It is also useful to discuss shortly some related issues like how to create trust at a general level.

The Oxford English Dictionary defines trust as "…a firm belief in the reliability or truth or strength etc. of a person or thing, … a confident expectation, … reliance on the truth of a statement etc. without examination." As can be seen already from this definition, trusting, believing, security, confidence, etc. are all concepts between which it is hard to draw boundaries. No consensus has emerged on what trust means. Contributions to the different identifications of trust etc. as listed in Guerra and Zizzo (2003) include works by Pettit (1995) in which a distinction is made between the attribute of trust and the behaviour of trust, by Misztal (1996) who identifies different types of trust according to their role: commercial, problem solving, informational, knowledge and identity, by McCullagh (1998) defining three types of trust: behavioural, business and technology, by Kini and Choobineh (1998) making distinctions between three different perspectives on trust: individual, societal and relationship and by Baron (1998) who identifies trust as a good, a belief and a behaviour.

This work will use the definition of the act of trust by Bacharach and Gambetta (2001):

- "a person trusts someone to do X if she acts on the expectation that he will do X when both know that two conditions obtain: if he fails to do X she would have done better to act otherwise, and her acting in the way she does gives him a selfish reason not to do X".

As explained in Guerra and Zizzo (2003) the first condition entails exposure of the trustor (by allowing the trustee to make her worse off), while the second condition implies temptation for the trustee (as he can profit from violating trust). This establishes that trust requires three conditions: uncertainty, exposure and temptation.

The definition above fits quite nicely to the problems that occur in banking. The consumers ("trustor") are exposed to banking institutions ("trustee") and the banks can profit (at least in the short term) from violating the trust of the consumers.

Several factors that determine trust have been suggested in the literature. Alessina and La Ferrara (2000) give four descriptions for trust. First, trusting others may be a moral or a cultural attitude. Secondly, trust may also be based on past experience. One trusts others if he is used to being treated fairly. Thirdly, a person may be more likely to trust those who are more "similar" to himself. This is closely related to the cultural aspect of the determination of trust. It is found in different studies that the level of trust that people have for each other is not the same in different cultures. Some of the

Asian cultures[2] are generally believed to be more group-oriented compared to the individualistic culture of the western countries. Finally, longer interaction and the expectation of repeated interaction in the future may also increase trust.

There exist few empirical works on the determinants of trust. Knack and Kneefer (2001) use cross-country regressions and conclude that social polarization is important for the determination of trust[3]. They measure social polarization by the Gini coefficient and find that income inequality is strongly associated with lower trust. They also find that ethnic homogeneity significantly increases the level of trust. Both of these findings fit the general framework about the determinants of trust discussed above. Trust does seem to be something that is not only closely related to personal interaction between people but also to the institutional framework of a particular society.

[2] Some studies have also found that the Nordic countries are in fact also more group-oriented rather than individualistic cultures.

[3] The question used to assess the level of trust in a society in this work is: "Generally speaking, would you say that most people can be trusted, or that you can't be too careful in dealing with people?"

3. Banking, the New Economy, Trust and Economic Growth

3.1 The New Economy, Changing Role of Trust and Economic Growth

What is the linkage between the New Economy and trust from the perspective of economic growth and how does the role of trust change in the New Economy?

Economic growth is relevant for two reasons. First of all, economic growth determines future welfare. Secondly, as was already mentioned, the final test of whether the economy is actually undergoing a period of revolution is to see if any effects on productivity and economic growth can be identified. Since the primary source of economic growth is the increase in productivity it is the productivity figures that are the ultimate test of the existence of the New Economy. How to measure productivity and problems in the measurement are beyond the scope of this study but the most common approach used in empirical work is to analyse the growth in labour productivity.

In other words the link between the New Economy and economic growth is quite simple. If the New Economy is a real phenomenon then it is driving economic growth. Why is this? The first fundamental determinant of the New Economy is the globalisation of national economies and individual businesses. This leads to better allocation of the resources of the world and enables different economies to utilise the comparative advantages they have. Globalisation of businesses leads to, for example, better utilisation of economies of scale in different industries. The result of globalisation is an increase in the growth rate of productivity and faster economic growth.

The other determinant of the New Economy is the rapid improvement of ICT. ICT has contributed especially to the possibilities of storing, sharing and analysing information throughout the different sectors of the economy. These increased capabilities again increase productivity and lead to economic growth. Thus, the general logic is clear. The trends in the economy that justify the term “New Economy” are driving economic growth.

The link between trust and economic growth is of a similar nature. Trust is something that is needed for economic development and the level of trust correlates positively to economic growth.

The economic benefits of trust have been widely recognized even in the “old” economy. Trust as such has always been important from an economic perspective especially because of its effect on the transaction costs in the economy. These costs represent a significant proportion of national GDPs according to different studies. A simple example is enough to illustrate why the reduction of these costs enhances welfare. If two agents in the economy trust each other in the sense defined in section two so that in stead of having to spend two months negotiating about a transaction they use two weeks for the same process, the saved resources (human as well as other

resources) can be allocated to other activities. Economies consist of millions of agents meaning that the aggregate resources allocated to other activities have large effects on the production possibilities of an economy. These transaction costs are reduced when people trust each other or, in other words, individuals in higher-trust societies spend less to protect themselves from being exploited in economic transactions. Organizations function better, governments are more efficient and so on. In short more trust spurs economic success.

Empirical work supports the link between trust and economic growth. Knack and Keefer (2001) regress the average annual economic growth per capita of 29 nations in 1980-1992 against the level of trust controlling for per capita income at the beginning of the period, the price level of investment goods and the level of education (measured by the number of students enrolled in secondary and primary schools in 1960). The regressions indicate that a ten-percentage point rise in the level of trust is associated with an increase in average annual per capita growth of four-fifths of a percentage point (p. 1260, Knack and Keefer (2001)). Hence, the effect is quite significant.

The role of trust can change in the New Economy. To be more precise, ICT and the New Economy underscore the importance of trust. The basic reason for this is the diminished role of personal contacts in different transactions as a result of increased use of ICT. The Internet is a good example of this. Different types of interactions and transactions among agents that were traditionally characterised by personal contacts take place impersonally in new marketplaces made possible by the development of ICT. This depersonalisation of interactions is likely to increase the uncertainties related to transactions and, ceteris paribus, reduce trust among different agents.

The globalisation of business works in the same direction. As was mentioned in the previous section, trusting others may be a moral or a cultural attitude, and trust may be based on past experience. A person can also be more likely to trust those who are more "similar" to him-self. Longer interactions may increase trust, as will expectation of repeated interaction in the future. It is not hard to see why globalisation can be demanding from the perspective of trust. In other words the hypothesis is that:

- The importance of trust and the mechanisms that create trust increases as a result of the New Economy

At the same time new market places like the Internet and new methods of disseminating information offer new ways to create trust. For example repeated interaction could be easier in the electronic market places than before. The net effect of the New Economy does not have to be negative as far as trust is concerned. Some of the online markets have been studied from the perspective of trust and these studies have offered interesting and perhaps surprising results.

For instance, baseball cards markets are among the most developed online markets in the US. A research by Jin and Kato (2002) uncovered few pieces of evidence that highlight both the importance as well as problems related to trust in the New Economy. They found that (1) in the current online market, at least some buyers drastically underestimate the risk of trading online, and that (2) some buyers have difficulties interpreting the signals from seller reputation and as a result some buyers

unwillingly reward fraudulent sellers and may prevent honest sellers from realizing the full benefits of a good reputation.

Hence, there is a possibility that erroneous market signals based on buyer misconception may be broadcast throughout the market and affect the long run decisions of all economic agents in the market. It is clear that these kinds of possibilities are disturbing as far as financial markets and banks are considered in the New Economy context. Clearly the lessons to be learned are that trust is important for the outcome, and that the creation of trust is not as straightforward in the New Economy.

The discussion so far can be summarised in five propositions:

1) The New Economy is characterised by the globalisation of businesses and the revolution of ICT.
2) Trust among different agents in an economy is a factor needed for a satisfactory economical development.
3) The New Economy and trust both affect the economic growth and welfare. If the New Economy is a real phenomenon then it will lead to a higher level of growth.
4) Trust reduces transaction costs and correlates positively with economic growth.
5) The importance of trust is increasing in the New Economy compared to the old one.

The causality is such that the economy is undergoing profound structural changes from the "old" economy to the new one. The New Economy can be related to two global trends. These changes, if realized, shift the rate of economical growth upwards and result in welfare gains. The nature of the trends that define the New Economy is such that the importance of trust among different agents of the economy will be more pronounced in the New Economy.

In other words the role of trust in the economy is both familiar and changing. On the one hand trust is something that has always been required for economical development. On the other hand, the New Economy highlights the importance of trust relative to the old economy. To be more precise, the New Economy requires more trust in order to realize the growth and welfare potential associated with the New Economy.

3.2 The Changing Role of Banks in the New Economy

The role of financial intermediation in economic growth has been a controversial issue in economics. In one extreme, it has been claimed that finance as such does not contribute to economic growth but financial development simply responds to the changing demand of financial services of other sectors. In the other extreme financial conditions and innovations are essential to economic growth (Haukioja and Hahl, 2003).

In the latter view, the financial system is believed to be able to reduce intermediation costs, to screen good projects from bad ones, and to finance entrepreneurs and ease capital accumulation for example by transforming the structure and contents of savings. The modern view is that the ability of the financial system to gather and process information so that resource allocation and risk management become more efficient is crucial for the growth potential of the entire economy. After all it is true that finance has a time dimension that is not shared by most other transactions. A financial interaction often involves an initial transfer of funds with the expectation that at some future date the funds will be returned (White 2003). Hence, the problems of asymmetric information arise leading to the fact that the abilities to process and analyse information are crucial to the financial system.

Empirical work supports the view that the financial system is important for the whole economy. King and Levine (1993) found that after World War II those countries with developed financial intermediation systems have systematically reached higher levels of economic growth. Also, Beck et al. (2000) found an economically large and statistically significant relationship between financial intermediary development and both real per capita GDP growth and total factor productivity growth.

Cross-country differences exist in the structure of the financial intermediation system. Some countries such as Finland are more bank-oriented and in other countries the role of banks is smaller relative to for example direct financing (e.g. the US). Also for example how consumers use different payment services varies between countries. As an example, Table 1 lists the number of transactions per inhabitant of four different payment services in selected countries.

Table 1. Number of transactions per inhabitant of different payment services

	Cheques		**Payments by credit/debit cards**		**Direct debits**		**Credit transfers**	
	2000	2001	2000	2001	2000	2001	2000	2001
Belgium	7	6	45	51	16	17	64	73
Denmark	10	9	79	87	24	26	40	39
Germany	5	4	17	19	61	62	78	85
Greece	0.2	0.2	5	5	0.3	0.6	1	0.5
Spain	5	4	13	15	29	29	8	9
France	74	71	54	60	32	34	35	36
Ireland	32	23	22	30	13	13	11	10
Italy	10	10	10	13	10	11	18	18
Luxembourg	0.1	0.1	58	63	6	8	27	28
Netherlands	1	0.3	53	62	53	54	72	74
Austria	1	1	14	17	33	34	61	66
Portugal	28	27	47	55	11	12	7	4
Finland	0.2	0.2	71	76	8	9	96	97
Sweden	0.2	0.2	36	45	81	78	10	11
UK	45	43	63	71	34	36	31	32
EU *)	24	22	34	38	35	35	40	42
Euro area *) **)	21	19	28	31	35	34	44	44

**) Weighted average excluding countries for which data is no available*
***) Following its entry to the euro area, the 2001 figures include Greece* Source: BIS blue book addendum 2003

Whether different financial systems can be ranked according to their contribution to economic and welfare growth is another issue but as a conclusion it is safe to say that financial markets do not just react to demand of other markets but are also innovative

in developing new services and products that can save transaction costs leading to increased economic activity and long-term growth (Haukioja and Hahl 2003).

The role and structure of the financial system can change in the New Economy. This is a direct consequence of the New Economy. The New Economy is largely about the development of ICT and the abilities to process information more efficiently. It is natural that a sector that is largely dependent on information will be affected by this development. It has been argued in the literature that information which is better, faster and cheaper allows lenders-investors within the financial sector to expand their reach leading expanded financial sector (White 2003, p.423). This has even led some authors to argue that the New Economy results in too much finance.

Banks are just one (although an important) part of the financial sector. Therefore the New Economy can have different implications on banks than on the whole financial sector. Actually two scenarios about banks in the New Economy that are quite opposite to each other can be created. Some economists have argued that traditional banks that provide both deposits and loans will fade away and more specialised financial institutions will take their place. Some have seen that this process was already in progress before the New Economy era. An interesting question is whether this scenario is more relevant in the New Economy (Haukioja and Hahl 2003). Of course by definition the role of banks in the economy would be diminishing in this scenario. Another possibility is that the role of banks in fact increases in the New Economy. This argument is closely related to our hypothesis about the pronounced importance of trust in the New Economy.

Both scenarios about the future of traditional banks can be supported with logical arguments. The historical origin of banks can be argued to lie in providing liquidity and safety in the environment of uncertain property rights, lack of information and anticompetitive regulations (Rajan 1998). ICT-technology, availability of information, and property rights have developed such that some of the historical reasons for banks have been eroded.

On the other hand, banks can also possess a competitive advantage in the New Economy. As Bossone (2000) argues, the emergence of the Internet and technological development do not pose as such of a threat to the existence of banks because banks have always operated in markets of virtual goods (money) and banks have comparative advantage in these markets. One source for such comparative advantage can be institutional trust that has developed towards banks in past decades. As our study on Finnish banks will show the experiences in the Finnish banking sector support this argument. At least in Finland in seems to be the case that the banking sector has institutional trust that is separate from the trust towards particular services or individual banks.

To develop the previous arguments further the changing role of banks in the New Economy can be approached from at least two different perspectives. The first is to ask how the New Economy changes the situation and structure of banks themselves. For example, how have the processes and services of banks changed because of ICT revolution. The other perspective is to ask whether banks can influence the entire economy in the New Economy by exploiting their institutional trust.

The proposition in the latter case is that if we are willing to accept that the banking sector for some, at this point, unspecified reasons has accumulated trust among other agents in the economy and if we assume that this trust is transferable, banks are in the position where they can increase the "stock" of trust in the economy, alleviate the problems that may occur from the pronounced importance of trust in the New Economy and in doing so unleash the growth potential of the New Economy.

- The increasing importance of trust in the New Economy can widen the role of banks in the economy outside the traditional role of financial intermediation. If banks are "more" trusted than other sectors of the economy for some yet unspecified historical reasons and this trust is transferable banks, then have the potential to increase the total stock of trust of the economy.

This proposition relies of course in the assumption that banks are more trusted relative to, for example, online retailers and that the trust that people have in banks can be transmitted to third parties and other services if banks participate in the transactions in some way or another.

Finally it should be remembered that financial intermediation is always required regardless of whether we are talking about the New Economy, the old economy or some other structure. Financial intermediation can be more or less efficient (because of trust-related issues, etc.) and this has implications for the whole economy[4]. Financial intermediation can also take many organizational forms. As was mentioned above "traditional" banks are not the only alternative. Hence, it is not evident that the role of banks increases in the New Economy or that the sole implication of the New Economy is related to the issue of trust.

The purpose of this work is to concentrate on one possible future scenario where the importance of banks (or for that matter other financial institutions) has increased because of the increased role of trust in the New Economy. This is the interesting possibility of which the empirical relevance remains to be seen.

[4] Goldman Sachs and Boston Consulting Group have estimated that the cost of a typical transaction taken in a branch or by phone is 50-fold compared to the one in the Internet (Claessens et al. 2000). The OECD has estimated that by transferring bank transactions to the net the cost per transaction diminishes 90 % (OECD 2000).

4. Trust and Banking – The Case of Finnish Banks

4.1 Description of the Banks Studied

4.1.1 Nordea

Nordea Bank Finland plc is a member of the Nordea Group, which has 9.7 million personal customers, over 1240 bank branches, and which operates in 22 different countries. The group's main focus of operations is in the Nordic and Baltic Sea region where Nordea operates through three business areas: Retail Banking, Corporate and Institutional Banking, and Asset Management & Life. Among the Nordic countries Nordea's market shares are 40 per cent in Finland, 25 per cent in Denmark, 20 per cent in Sweden and 15 per cent in Norway.

Nordea is listed on the stock exchanges in Helsinki, Stockholm and Copenhagen. It is approximately the 20th largest bank in Europe, the largest in the Nordic countries and the market leader in Finland.

Nordea Bank Finland traces its history back to 1862, when the Finnish commercial bank, Union Bank of Finland, was formed. Nordea's subsequent history was characterised by many mergers in which small, independent banks boosted their competitive strength by combining. Merita Bank was formed in 1995 when Kansallis-Osake-Pankki (established in 1889) merged with the parent company of Union Bank of Finland. In 1997, Finnish Merita and Swedish Nordbanken merged to form MeritaNordbanken. The Danish Unidanmark Group merged with MeritaNordbanken in 1999. The Norwegian Christiania Bank og Kreditkasse joined the group at the end of 2000 and the Swedish Postgirot Bank in 2001.

Use of Nordea's electronic services

Nordea currently has 3.15 million personal Internet bank customers, and the usage of Internet banking is still increasing. Of the Nordic countries, Nordea has most e-customers in Sweden, almost 1.5 million. Finland comes second with 1.2 million e-customers. Denmark is close to 0.5 million e-customers, and in Norway there are 265,000 e-customers.

In the first half-year in 2003 the use of Nordea's Internet bank grew by 21 per cent. The customers pay approximately 50% of their invoices through the Internet bank. Measured by payment transactions, Nordea's Internet bank is the most frequently used in the world. In the first half of 2003 customers logged on to the service 62.1 million times and made 71 million payments. When comparing the period from April to June in 2002, to the same period in 2003, the number of log-ons has increased by 22% and the number of payments by 20%. The growth of on-line equity trading customers has also been rapid: 320,000 customers have signed up for equity trading on-line.

4.1.2 Sampo

Sampo Bank plc is a subsidiary of Sampo plc group, which in addition to Sampo Bank includes Sampo Life Insurance Company Ltd, Mandatum Private Bank plc, Sampo Fund Management Ltd and property management company Mandatum Omaisuudenhoito Oy. Sampo is also the principal owner of the Nordic property and casualty insurance company, If.

Sampo Group has 1.2 million retail customers and over 300 branches in Finland. Although Sampo's operations are concentrated primarily in Finland, it has subsidiary banks in Estonia and Lithuania. Sampo provides life insurance services in the whole Baltic region and Poland.

Similar to Nordea, Sampo originates from the 19th century and has experienced several mergers. The foundation for the banking business of Sampo was laid in 1887 by the Finnish government-owned Post and Savings Bank, which became the Post Bank in 1970. In 1988 the bank became a state-owned limited company and at the same time a full-service bank operating as a private commercial bank. In 1998 Post Bank and the state-owned specialist credit company Finnish Export Credit Ltd were combined to form the new Leonia Group. The Sampo financial group was then established at the outset of 2001 in the merge of banking group Leonia and insurance group Sampo. In February 2001, Mandatum, a specialist in private and investment banking that emerged at the end of the 1980s, joined the group.

Use of Sampo's electronic services

70 per cent of Sampo's daily customer contacts take place on the Internet. The figure includes all basic banking services such as bill payments, transactions follow-up, and direct debit. 80% of stock trading and over 50 % of student loans have also transferred to the Internet bank. Only three per cent of Sampo customers do their basic banking in the branches. In 2002, Sampo increased the capacity of its web bank and improved its monitoring services to support the growing rates of Internet bank use.

4.1.3 eQ Bank

eQ Bank Ltd. launched banking operations in May 2002 after receiving its banking license from the Ministry of Finance. eQ Bank is a wholly-owned subsidiary of eQ Online Corporation, which commenced operations in Finland in 1998 as the first fully automated direct-access online broker to the Helsinki Exchanges.

eQ Bank operates mainly via the Internet and offers online brokerage services, asset management and savings account services. A wholly-owned subsidiary of eQ Bank, eQ Funds Ltd, complements the product portfolio of eQ Bank with fund management. At the end of 2002, eQ Bank had 29, 600 customers and one branch office in Finland.

4.2 Review of Finnish Retail Banking History

The following section provides a sort review on Finnish retail banking history based on Hirvonen (2000). For a recent discussion on the topic see e.g. Koskenkylä (2002).

Prior to 1985 Finnish banking industry was highly regulated and retail banks competed mostly for deposits as bank deposit rates and lending rates were regulated. During this time the Finnish banks developed one of the most dense bank branch networks in the world because an extensive network was an effective means to compete for market shares.

At the end of the 1980s the Finnish finance market boomed due to deregulation, economic upturn, and increased capital mobility. Borrowing from abroad became completely free and domestic lending boomed, which increased the amount of money in the economy and lead to overheating. In the beginning of the 1990s the economic rise stopped abruptly and turned to a rapid recession. Banks suffered credit losses and their operational preconditions weakened.

As the crises deepened, Finnish government intervention was needed to manage the situation. The result was that problem banks were merged with or taken over by other banks, or nationalized. Public support of the banks was estimated at about 7% of GDP in Finland. (Pesola, 2001) At the same time, banks started to reorganise their business by downsizing branch network and reducing personnel.

After the recession the traditional basis of bank service delivery, the branch network, was only a fraction of what it used to be. Branch network services were complemented with ATMs and advanced telebanking services. Banks directed routine banking services to self-service channels by pricing self-services lower than branch services.

Figure 1 below presents bank groups' operating profit in Finland between 1991 and 2000. The bank crisis and its subsequent recovery can clearly be identified in the figure. The crisis was worst around 1992.

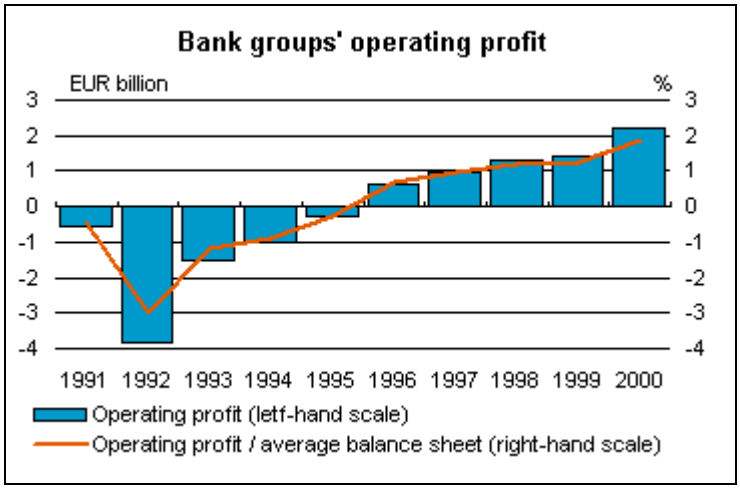

Figure 1. Bank groups' operating profit (www.pankkiyhdistys.fi)

4.3 Development of Electronic Banking Services

Over the past decade, banks have reduced the number of bank branches and bank employees by half in Finland. The reduction has been more intense than elsewhere in Europe. The decrease in personnel and branch offices that has been going on for the last ten years has now ended, and the numbers are beginning to stabilize. Banking groups, including the branch offices of foreign banks, employed a total of 28,670 people in 2002. The number of branches amounted to 1,570 at the end of the year. (FBA 2003b)

The increasing use of Internet banking and bankcards has diminished the role of branch offices in providing banking services. EFTPOS terminals as well as telebanking services have clearly reduced payment processing in branches. At present, approximately 91% of the Finnish payment transactions are electronic. (FBA, 2003a) Figures 2 and 3 below illustrate the development of electronic banking in Finland. The term "telebanking agreements" in Figure 3 includes both Internet and telephone banking service agreements.

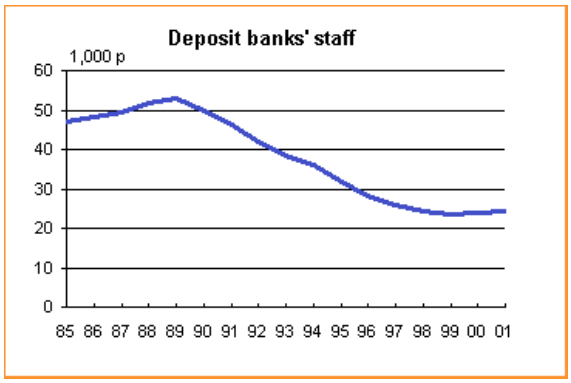

Figure 2. Deposit banks' staff (www.pankkiyhdistys.fi)

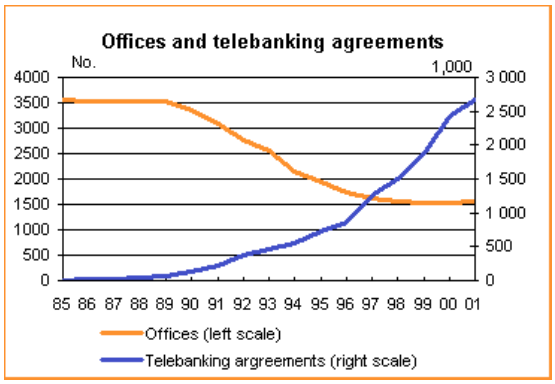

Figure 3. Offices and telebanking agreements (www.pankkiyhdistys.fi)

The number of electronic banking agreements between banks and their customers reached 2.8 million at the end of 2002. Bill payments provide a descriptive example of the development: in 2002, 67 per cent of invoices were paid via information networks, while only five per cent of payments were made in branch offices. Compared to 1993, payments made in branch offices have fallen by 14 percentage units. (FBA, 2003c) Figures 4 and 5 below depict the growth of electronic payment services in Finland.

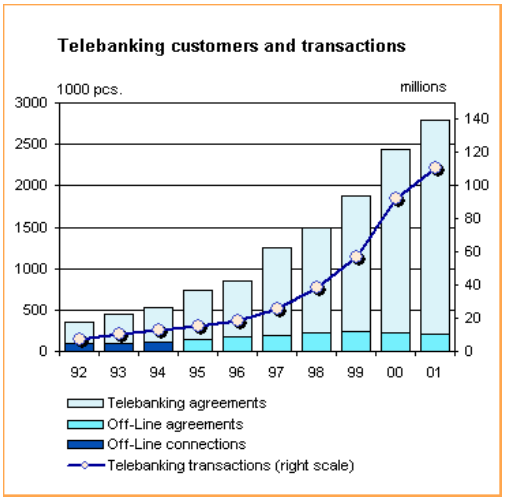

Figure 4. Telebanking customers and transactions (www.pankkiyhdistys.fi)

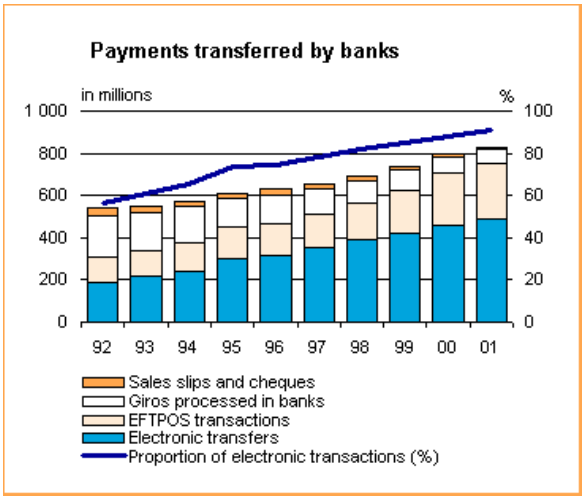

Figure 5. Payment transfers (www.pankkiyhdistys.fi)

4.3.1 Banking Services in Different Channels

The bank experts interviewed for this study estimate that Internet banking is rapidly becoming the most frequently used banking service channel. Internet banking transactions are continually increasing and the service selection on the Internet covers almost all services available in physical branches.

The most frequently used Internet banking services are routine transactions such as bill payments and transaction follow up. These services are recurring, familiar, simple, and easy and therefore their volumes have risen fast. Stock trading has also moved to the Internet within the small customer segment buying and selling shares actively. For this segment, stock trading is as routine of a transaction as bill payments are for the majority of consumers. An example of another active consumer segment in Internet banking is students. More than half of student loans are currently contracted via Internet banks and the trend is upward sloping.

Complex banking services requiring a lot of information and comparison of different alternatives are still difficult to purchase over the Internet. Physical bank branches are still more convenient for the purchase of these services. It is also possible that a service process spreads between different channels. For instance, loan contracts can be made in the branch and thereafter customers may service the loan over the Internet bank.

4.3.2 Drivers of the Development

The strong development of electronic banking services in Finland has been the result of different factors. The bank experts named several development drivers, which have positively affected the adoption of electronic retail banking services. These drivers include advanced technology and industry standards, long-term development of consumer habit, and Finnish payment culture.

Online back-office technology and industry standards

Payment intermediation in Finland is based on a standardized giro system, which makes it possible to automate connections between payers, payees and banks. The system transfers payment data, which includes information on the payment amount, payer, payee, banks involved in the transaction, and information which identifies the payment (e.g. a reference number) (FBA, 2003a).

The Finnish payment intermediation system has been an important facilitator for the Internet banking services. The bank experts described how Finnish banks have jointly agreed on operational rules, data contents and essential standards, such as account numbers and payment reference numbers. The shared interbank systems have enabled faster and more cost efficient development of electronic and Internet banking services.

Advanced back-office technologies have also contributed to the development of Internet banking. Finnish back office systems were already online when banks started to create Internet banking services, which made it relatively easy for banks to upgrade the front office technologies to the Internet.

Long-term development of consumer habit and usage of different electronic services

Electronic banking services have not emerged overnight but have instead evolved gradually. Over the years, banks have introduced new electronic distribution channels one after another and promoted the electronic services actively with price differentiation and service availability. New and more cost efficient services have been lower priced and better available than traditional services. The gradual development accompanied with strong incentives has convinced bank customers to use the new banking services and technologies.

Although price differentiation has been a strong incentive, bank experts highlight that new services have also provided clear benefits to customers in terms of availability and convenience. The experts believe that few customers would switch back from Internet banking to branches, even if service prices were the same.

Electronic payment culture

The payment culture in Finland has supported the use of electronic self-service channels. In Finland, consumers are used to paying bills themselves instead of direct debiting, for example, which is less frequently used. Bill payment is a regular transaction and bank customers pay bills several times in a month or even in a week. As bank customers started to use electronic services primarily for routine transactions such as bill payment, they learned to use the new payment technology through repeated use of simple, recurring transactions.

Debit cards and cash are the most popular payment methods for everyday purchases in Finland. Credit cards are used less often and private persons hardly ever use cheques anymore. The use of debit cards and cash dispenser ATMs has further acclimatized bank customers to the use of electronic self-services and reduced their needs to visit bank branches regularly.

4.4 Trust in Electronic Banking

4.4.1 Trust in Banks as Institutions

Banking business can be described as a trust business. Trust is an essential element in the bank-customer relationship, where a customer deposits his or her money in a bank and gives the bank control over the assets (recall the definition of trust in section two). This relationship would not exist if people did not trust in banks. Therefore, a certain level of trust is always present in every banking relationship.

In Finland, customer trust towards banking institutions originates from history. For a long time there were only a few banks in the market, all of which had good financial standing. As deposit and lend rates were regulated, the competition between banks was modest and people had little incentives to change banks. The industry was very stable and players changed only when mergers occurred. As a result, people developed lifelong customer relationships to banks and learned to trust in the stability and constancy of the banking industry.

Another factor affecting trust towards banks is the reliance on banks in Finnish society. Companies started to pay salaries directly to employees' bank accounts in the 1970s, which created a regular banking relationship between private persons and banks. Today, 98.5 per cent of adults in Finland have a bank account (FBA, 2003c). Banks have traditionally been the most important source of funding since there has been few other sources of financing available. Finnish people also like to own their homes instead of renting apartments. This usually involves borrowing the necessary funds through long-term bank loans. A typical consumer therefore has a long-term relationship with banks. This reliance on the Finnish banks has contributed to an environment where trust in banks as institutions has emerged.

Although the industry today has changed from what it was decades ago, the fundamental trust in banks and in the banking industry still remains quite strong. It is interesting that trust in banks does not typically vary significantly between different banks but applies to the whole industry in general. Thus, it is possible for even new players to benefit from the general trust in banks. According to a recent study by the Finnish Banker's Association, 91% of bank customers consider their bank as a trustworthy cooperation partner and 76% of customers trust that their bank offers services on competitive terms and prices (FBA, 2003c).

Banks themselves estimate that maintaining trust is beneficial for the whole industry and is in the common interest of all banks. The Finnish banking sector has changed and competition has grown stronger as new smaller players have emerged. The larger banks estimate, however, that the size of a bank can have a positive effect on trust. Also the origin of a bank and especially local presence are believed to contribute positively to trust. It would be especially difficult for globally unknown banks to establish themselves in Finland.

Legislation and supervision also have a positive effect on the trust in banks. Financial Supervision, which supervises the financial market and grants bank licenses, sets strict requirements for bank candidates[5]. The established banks are perceived as more trustworthy because bank licenses are difficult to obtain and not everyone is able to found a bank. Other legislative factors creating trust in banks include capital requirements, bank-secrecy, and deposit guarantee system. The banking industry regulation may affect people directly as they perceive that regulation enhances the trustworthiness of banks. On the other hand, legislation affects the behavior of the players in the industry and therefore has an indirect effect on trust formation.

The bank experts agree on the importance of legislation in the formulation of trust and consider cooperation and discussions between the industry and authorities as valuable for all parties. The role of legislation was seen beneficial as long as it creates common and fair rules for all players in the business. The experts stated, however, that legislation cannot drive development. Therefore bank innovations should not be restricted with too detailed regulation. It was also a concern of some experts that legislation easily becomes excessive and too fragmented if several different laws and directives regulate the industry. It is especially difficult for consumers to identify their rights and responsibilities in a complex regulative environment.

4.4.2 Trust in Electronic Banking Services

Customers' trust in new electronic banking services is based on several factors: their trust towards banks as institutions, their past experiences in previous banking services, good functionality and lack of severe problems in banking services, and peer group influence. These factors are discussed below.

Institutional trust and past experiences in other e-banking services

Institutional trust in banks is a fundamental source of trust in e-banking services. People trust in banks and bank services, but not in the new channels as such. Banks have also actively familiarized customers to electronic banking during a long service development process, which started in the late 1970s with the launch of cash dispensing ATMs. Trust and confidence in electronic banking have not grown overnight but consumers have become accustomed to electronic banking gradually, as they have learned to use new channels and to trust in electronic banking services over time.

When Internet banking was launched people already trusted their banks as service providers. People also had positive experiences from the prior introductions of electronic banking services, such as ATMs, which have proven to be reliable and functional. As the trusted service provider then introduced a new service channel, the Internet, and assured that it was safe, people had the confidence to try the new service.

[5] http://www.rahoitustarkastus.fi/english/

Good functionality and lack of severe problems in banking services

Bank customers estimate Internet banking as trustworthy if the service is reliable and stable. It is therefore crucial that the Internet banking service is functional and error-free. The first trial plays a significant role in the creation of trust. If the service does not prove reliable during the first trial then it will take a long time before a person tries the service again. Trust in Internet banking services has grown with time as the services have proven to be secure and reliable. During the history of Finnish electronic banking there have been no major security problems or big headlines, which could have weakened people's trust in the e-services.

One incident where trust in bank services has been on trial, has been a series of robberies of cash dispensing ATMs in the Helsinki area a few years ago. A gang of criminals emptied ATMs in Helsinki by stealing PIN numbers and cards, and installing machines in ATMs that could read magnetic stripes. Banks were able to resolve the situation by promising to compensate customers for the damages and assuring people that the police would arrest the criminals. The criminals were then arrested and the incident did not affect bank customer behavior. The example shows that fast communication with convincing actions may be effective in problem situations.

Peer group influence

Peer group experience and recommendations are also important in trust creation and their role is underscored when the banking service or technology is completely new. Today, the role of peer group influence in the adoption of Internet banking in Finland is perhaps to some extent limited. Finnish consumers do not have to hear many of the experiences of their peer group anymore because they already have own experiences in both Internet use and in the use of earlier electronic banking services, such as ATMs to rely upon.

In some cases, however, the importance of peer group influence still prevails. Elderly people and the consumers who are less technically oriented often hesitate to adopt new technical solutions. In these groups peer group recommendations have a strong influence. Also, if a bank is totally new and less well known, the peer group influence is relatively more important in creating the needed trust. Bank experts from the newest bank in this study stated that opinion leaders have been important marketers for their services. These early adopters have spread the word of the new bank in their contact networks.

4.4.3 Mechanisms that Banks Use to Create Trust Towards Electronic Banking

For the reasons discussed above, banks did not have to start from scratch in creating trust towards Internet banking or e-banking as a whole. Customers already trusted in banks, they had positive experiences on prior electronic services and their friends had perhaps recommended the new service to them. This is not to say that banks have not purposely created trust in electronic services and Internet banking. Habit formation is an important element in developing the trust that consumers have towards a particular

service. Banks have of course tried to affect the habit formation processes. Reliability of services forms another important element in trust. Banks can increase trust by making sure that their services are secure and reliable.

User habit creation

Habit and knowledge create trust and banks have actively educated customers to use new electronic channels when introducing new banking innovations. Although the success of Internet banking could not be predicted in the beginning, the development has been consistent in a sense that banks gradually encouraged people to use remote and self services.

Payment envelope service was an early form of remote banking service. Customers could send giro transfers in an envelope to a bank for processing. The envelope service taught people to trust in remote banking as people learned that paying bills was also reliable outside of physical branches. Some banks first sent their customers a bank statement every time they paid a bill with remote payment service. Later, when people became familiar with the payment method, the statements were not needed anymore.

Cash-dispensing ATMs were introduced in the end of the 1970s and became common quickly. When people started to withdraw cash from ATMs they learned to use numeric codes for authentication and became familiar with using an electronic banking device alone, without the presence of bank personnel.

Phone banking was added to the selection of remote self-services in the beginning of the 1980s. The selection was extended with PC banking a few years later. Although PC banking at that time was not widely used in households, it became common in work place environments where people became familiar with the concept. Advanced phone banking services were introduced in the early 1990s.

Giro ATMs with bill payment functions were introduced in the late 1980s. From the customers' point of view the logic in giro ATMs was similar to the logic of cash dispensers and it was therefore easy for people to trust in and use the new ATMs. Giro ATMs were first placed in branch offices where branch personnel gave information on and directed people to use the new service. After customers became familiar with using the ATMs in branches, the machines were moved outside branches where they were more easily available. As Giro ATMs became independent of banking hours they were able to provide clear benefits to bank customers. When bar codes and readers were included in 1992 the payment process became relatively fast. In a short time giro ATMs became the most popular bill payment method and an important step toward the use of Internet banking services.

When Internet banking was launched in the mid 1990s, people had already 5-10 years of experience in remote and self-service banking. It was not a big step for the customers to start paying bills in an Internet banking service on their PC's at home when they had already paid bills using ATMs, telephone banking or other previous electronic services. The service routines over the Internet were not that different and the convenience was even greater because people could attend to their banking affairs

at home and at all times. In addition, the Internet boom at the end of the 1990s increased the demand and interest toward Internet banking.

Looking back at the development it can be stated that banks have steadily developed trust in existing services and transferred the trust to new services. Figure 6 below presents the development of electronic banking services in Finland. The introduction of Internet banking in the mid 1990s has notably sharpened the telebanking curve in 1996 and again in 1998. The giro ATM slope shows that the number of ATMs has decreased in recent years. The reduction indicates that Internet banking services have started to substitute the older technology.

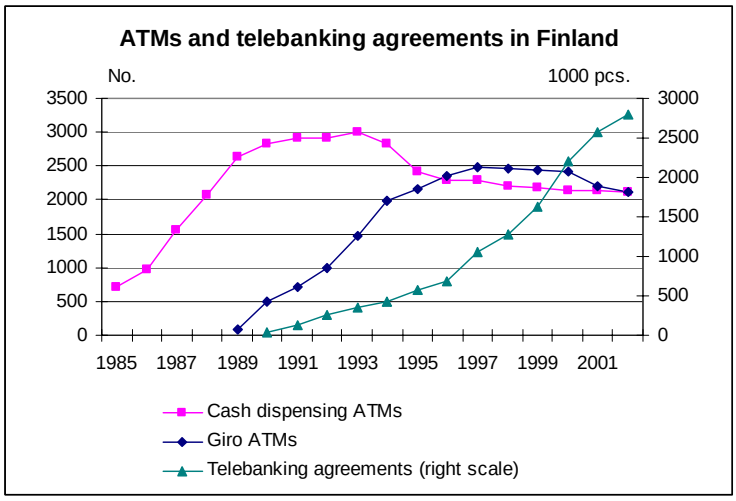

Figure 6. Number of cash dispensing ATMs and Giro ATMs in Finland
(data source: The Finnish Bankers' Association)

Today, the Finnish consumers' trust in electronic banking services is at a high level. A recent EU study on public confidence in electronic payment instruments reported that Finnish consumers had the greatest confidence in making payments electronically. (Hegarty et al. 2003)

Service security and reliability

Bank experts state that trust cannot be taken for granted but has to be earned. Even if banks are trusted by default, they have to maintain the trust customers have in electronic banking services. The reliability and security of Internet and electronic banking is therefore essential. In practice this means that banks make large investments in technology and test new solutions carefully before launching. Banks have also promised to compensate damages caused by technical service failures.

Nonreusable security codes are one example of secure service solutions. The implementation of user authentication systems is to some extent similar across Finnish banks. The banks typically use a constant access code and a list of nonreusable security codes. In some Finnish Internet banking services users can log in with the constant code and the nonreusable codes are needed only when making transactions. In some other banks, both types of codes are needed before the service can be accessed. Banks believe that the use of nonreusable security codes makes Internet banking very safe, and yet preserves the ease of use and convenience of the service.

Creating trust in a new Internet bank

Creating trust in a completely new Internet bank is a more challenging task than establishing a trusted traditional bank in an Internet environment. Bank experts from eQ Bank estimate that trust in their services originates from the company's online brokerage background. Online stock trading is technologically a very difficult environment and the company first earned its reputation there. As the services have been reliable in that demanding environment, it has been easier for customers to trust in the basic banking services offered later when the company became a bank.

Service reliability and functionality were already highlighted as important factors in trust creation and their importance is paramount for a new Internet bank because consumers do not have long term experiences with their services. To further increase trust in its services, eQ bank has enhanced the availability of transaction history and documentation in its service. Funds transferred from another bank's account to an eQ account are instantly visible. Customers are also able too see bank transactions from 2001 on to present online. The service provides detailed information on each transaction made at that time. The ability to check and verify transactions is an important factor increasing customers' level of trust.

The incentives for changing a bank service provider have been similar to the incentives for changing a service channel: lower prices and value added service. As discussed above, the effect of peer group recommendations has also been an important factor in creating trust toward the new service provider.

4.4.4 Trust in Physical vs. Electronic World

Bank experts regarded the elements of trust as essentially similar in electronic and physical environments. In both environments, customers estimate the reliability of a bank in terms of its financial stability, company profit, credit loss risk, and prior experiences. An established company with a good financial standing that is trusted in physical world is also trusted in an electronic environment by default.

There are, however, some differences between different channels. In physical environment, facilities and especially service personnel contribute to the trust towards banks. On the Internet, users first trust in the bank providing the service and then judge the trustworthiness of the service based on its functionality and reliability.

According to banks, it is easier to lose trust in an electronic world. In branches bank personnel can discuss problems with customers, give explanations and affect trust formation through interaction. In the digital environment the immediate personal interaction with personnel is missing (recall the discussion in section two about the role of personal interaction in trust) and people are more sensitive to errors.

Control of the user interface presents another difference between traditional channels and Internet banking. In Internet, banks do not own and cannot control user interfaces in a similar way as in traditional service channels. It is, for example, more difficult to

identify a problem if a user cannot connect to an Internet banking service. Customers use many different browsers and the quality of network connections varies. There is an increasing number of factors affecting the accessibility of services and at the same time the service reliability becomes more crucial. User interface issues therefore present new challenges for service providers. To solve the issues, banks have created follow-up and control mechanisms that monitor Internet banking services and connections, and help to identify problem areas.

4.5 Future Banking Services and Trust

Banks expect that the role of Internet banking will further increase in the future. Internet and branch offices are seen as the two most important service delivery channels in the future. The use of other service channels such as telephone banking and giro ATMs will continue to diminish. A majority of different banking services will take place over the Internet. Branch offices will still be important sales channels in those banks that have a branch office network.

The bank experts were cautious to estimate the development of newer electronic services delivery channels such as mobile telephones and digital television. The use of mobile devices has restrictions due to their small screen size and usability issues. The experts did not perceive a mobile phone as very convenient for transactions but found it suitable for receiving information, receiving alerts, and checking account balance. Many banks introduced WAP-services in the late 1990s but there was little demand for the services.

Digital television was perceived problematic for other reasons. First, people traditionally use television in a passive manner and banks should customize their services anew for digital television. Secondly, households commonly have only one TV set and it could be difficult if different household members would like to use the television for different purposes at the same time. Finally, if Internet services are to be used, digital television still needs a network connection and does not provide any advantages to PC in that respect. In general, the advantages of digital television compared to a PC were seen as questionable and banks are hesitant to invest in digital television technology in a near future.

4.6 Banks as Trusted Third Parties in Electronic Commerce

To establish their role in electronic commerce banks have developed new payment and authentication services for Internet commerce and online public services. Banks see these services as a natural extension to the services they have traditionally been offering in a physical environment. As payment and authentication service providers banks are able to transfer trust to other parties and increase overall trust in Internet transactions.

Internet payment services

The new bank payment service for Internet commerce is based on Internet banking solutions. The payment service, a so-called payment button, is placed on a merchant's

Internet store site. When a customer is at the site and ready to pay for purchases she clicks the payment button of her bank and the system then transfers her to her Internet banking service where she accepts the payment. The payer's account is then debited and the payee's account credited in real time. (For more information about Internet payment solutions, see e.g. Jyrkönen & Paunonen, 2003)

Banks believe that bank payment buttons increase consumer confidence in Internet payments. Consumers can trust that a merchant who has the bank payment button on its website is real because the merchant needs to have an account in the bank whose payment button it uses. Banks check the trustworthiness of merchants and cooperate only with reliable merchants who are in good financial standing. Banks, however, are not willing to ensure the entire payment process including such issues as service quality and logistics.

The banks' role as a trusted third party is more important in those transactions where the merchant is unknown. Consumers already trust in familiar and well-established merchants with whom they already have experience in traditional channels.

Other Internet payment methods include credit card payments and billing. Finnish people have some reservations toward using credit cards in Internet commerce. One reason for this is the lack of user habit. Credit card use is not common in the physical environment either because consumers prefer to use debit cards and dislike purchases on credit. Another reason for doubt towards credit card use is the negative publicity on credit card frauds in the press, which has made consumers more aware of the problems. Finally, the Finnish credit card service company Luottokunta[6], instructed consumers not to give their credit card numbers in Internet transactions but to wait for more secure payment services.

Payment buttons provide a more reliable payment solution compared to credit card payments but other issues in electronic commerce payments remain. If the purchases are physical goods, consumers may not want to pay for them before delivery. Billing therefore presents another convenient choice for consumers. Furthermore, in addition to trust, there are also other issues affecting the success of electronic commerce. These go beyond the scope of this study but it is worth remembering that solving trust issues is only one step in solving the issues hindering electronic commerce development.

Authentication services

In addition to payment services, the largest Finnish banks also provide authentication services for merchants, service providers, and authorities in the Internet. In this "Tupas-service", the bank identifies the customer on behalf of the service provider using the same identification methods as those used in Internet banking. The identification information provided by the Tupas-service can also be used as a component in generating a digital signature if so agreed between the customer identifying himself and the service provider. Banks have jointly standardized the service and each bank identifies its customers through the same bank-specific

[6] Luottokunta is jointly owned by retailers and banks and it offers services related to non-cash payment and credit card systems. For more information, see www.luottokunta.fi

identification method that the customer uses within the bank's own services. (FBA, 2003a)

In the Tupas authentication service, banks act again as trusted third parties mediating authentication information between consumers and merchants or authorities. Consumers trust that banks will deliver their personal information safely and only to the intended merchant/authority. The merchant/authority then trusts that the consumer information delivered by the banks is correct.

The Finnish Population Register Center provides another authentication service to the Finnish market, the electronic identity card. The electronic identity card was introduced in the late 1990s but it has not become popular. Currently there are approximately 12,000 active cards in the market. Until today, the electronic ID card and Tupas service have competed with each other and the development has been slow.

A significant step in the service development was achieved in August 2003 when Ministry of Finance gave public authorities a recommendation on the use of the Tupas services. Bank experts believe that this recommendation will increase the use of Tupas service both in public and in private sector. It is easier for merchants and service providers to rely on the continuity of the service when it is supported by a government body.

Experts from larger banks state that the Tupas service has advantages over the electronic ID card. First, the card needs a specific card reader device and software installed on a PC before it can be used. Meanwhile, the Tupas service can be used on all computers at home and at work or elsewhere as long as a person has the Internet banking access codes and Internet connection available. Secondly, Tupas is based on a prevailing solution. Compared with the 12,000 electronic ID card holders, banks have approximately 2.8 million customers in Finland who have the bank security codes needed for the Tupas service. Finally, consumers are already familiar with the bank authentication service as it is regularly used to access Internet banking services. Use of electronic ID card, on the other hand, is not yet familiar for consumers. It is also more difficult to learn to use the service because there are not many opportunities to use the electronic ID card yet.

The experts of a small bank interviewed in this study had some reservations toward the current development, however. They were concerned that if different players in the market were able to develop authentication services the developers would gain an unreasonable competitive advantage. There would also be a risk of numerous incompatible services and lack of a common standard in the market. The experts preferred a single government provided standard which would guarantee similar competitive opportunities for all players.

All interviewees agreed that electronic authentication services are needed. A standard authentication solution can significantly lower service provision and transaction costs, enhance the availability and convenience of services, increase productivity of service providers and possibly contribute to the efficiency of the entire economy.

5. Conclusions

This work has concentrated on two central concepts of the future world, the New Economy and trust, with an emphasis on banking. The focus is on the changing structures of banks and the changing role of banks in the New Economy. This work began with a short theoretical part defining what is meant with the New Economy and trust. The interest is on the link between the two concepts and economic growth, and especially the changing role of banks in the New Economy.

Case-studies about three Finnish banks formed the central part of this work. The purpose was to introduce the current status of the retail banking sector in Finland as far as the adoption of ICT and evolution of different processes and services is concerned. The other major purpose was to consider the role of trust in banking and to "test" empirically whether the propositions of the theoretical part about trust, banks and the New Economy are relevant from the real world perspective.

The New Economy can be related to at least two central concepts. Globalisation is the first one of these trends. The other one is the revolution of ICT. We argue in this work that together these two trends increase the importance of trust in the New Economy compared to the "old" one. This is especially due to the decreasing role of personal interaction. The Internet is the prominent example of a new market place characterised by impersonal transactions.

Trust itself is not a particularly well-defined concept. Different authors mean different things when they talk about trust. A universally accepted definition of trust has not yet emerged. Trusting, believing, security, confidence etc. are all concepts between which it is hard to draw boundaries. Omitting these difficulties from the discussion in this work, the definition of trust we use is the following: "a person trusts someone to do X if she acts on the expectation that he will do X when both know that two conditions obtain: if he fails to do X she would have done better to act otherwise, and her acting in the way she does gives him a selfish reason not to do X". In other words, trust requires three conditions: uncertainty, exposure and temptation.

Trust has always been an essential part of economic systems and the functioning of human societies. At the same time we feel that the importance of trust is being emphasized in the New Economy. This changing role of trust is the ultimate reason why the role of banks may be changing in the New Economy.

Financial intermediation has always been an essential part of the economic system. The possibility that the role and structure of the financial system can change in the New Economy is a direct consequence of the definition of the New Economy. The New Economy is largely about the development of ICT and the abilities to process information more efficiently. It is natural that a sector that is largely dependent on information will be affected by this development.

Perhaps the most important possibility is captured in the following proposition.

- The increasing importance of trust in the New Economy can widen the role of banks in the economy outside the traditional role of financial intermediation. If

> banks are “more” trusted than other sectors of the economy for some yet unspecified historical reasons and this trust is transferable, the banks have the potential to increase the total stock of trust of the economy.

This proposition relies of course in the assumption that banks are more trusted relative to for example online retailers and that the trust that people have in banks can be transmitted to third parties and other services if banks participate in the transactions in some way or another. This assumption was “tested” empirically in the case-studies and the assumption is found to be supported by experiences of the Finnish banking sector.

The Finnish banking sector has undergone a profound restructuring in the 1990s and at the same time a large part of the services that the banks are offering has been transferred to electronic channels. This is especially true with routine transactions such as bill payments and transaction follow-ups. Several drivers for this development can be identified. The Finnish payment intermediation system has been an important facilitator for the Internet banking services. Banks have actively promoted the electronic services by directing their customers to the new channels using service pricing and also the availability of different services. The new services have also provided clear benefits to the customers in terms of availability, price, and convenience creating incentives for the customers to learn to use the new service technologies. Also the payment culture in Finland has supported the use of electronic self-service channels.

Perhaps the single most important finding of the case-studies is that banks share a strong view that the institutional trust in banks is the fundamental source of trust in e-banking services. People trust in banks and bank services, but not in the new channels as such. Trust towards banks has not emerged overnight or due to one mechanism that banks have used. The trust that consumers have for a particular e-service is based on the institutional trust in banks. The reliability of the services is also crucial.

According to the bank experts the elements of trust are essentially similar in both the electronic and physical environments. In both environments, customers judge the reliability of the service provider in terms of their prior experiences in the bank, for example. Companies, which are trusted in physical world, are also trusted in electronic channels by default. However, it is easier to lose trust in the digital environment.

The nature of trust as institutional rather than bank-specific implies that the proposition above is plausible. If and when banks have institutional trust that can be transmitted to third parties, then banks can increase the total stock of trust in the economy. The empirical relevance of this remains of course to be seen but it seems to be a plausible future scenario. Banks in Finland are already active players in payment and authentication services in e-commerce. Hence, the “new” role of banks is perhaps emerging at the moment.

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Interviews

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Appendix 1

TUPAS service security

SSL encryption is used in all data communication between the parties of the identification service, preventing external parties from seeing the information or hanging any of it. The service provider.s server software must support 128-bit SSL encryption. The length of the key used in the connection is based on the properties of the customer.s browser. The identification request and the response message are protected with a message authentication code ensuring data integrity, so it is not possible for the customer controlling the identification data transmission to alter the data without the service provider and the bank noticing it.

Each party is responsible for the protection, security and correctness of the data stored in its own services. The customer identifying himself is responsible for making sure that the identifiers provided by the bank or other identification tools do not fall into the hands of external parties.

Source: Tupas - Identification Service For Electronic Customer Service Providers. Service description and service provider guidelines.Version 2.0 The Finnish Bankers' Association, 13 June 2002. (http://www.pankkiyhdistys.fi/sisalto_eng/upload/pdf/tupasv2eng.pdf). Accessed Oct. 29, 2003.