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* Views expressed are those of the authors and do not necessarily reflect official positions of De Nederlandsche Bank.

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Trust in financial institutions: A survey*

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Abstract

Trust in financial institutions is widely considered important. However, a clear overview of studies on the drivers of trust is missing. We intend to fill this gap in the literature. After discussing why trust in financial institutions is important, we turn to its measurement, where we distinguish between trust in one's own institution and trust in institutions in general (narrow-scope and broad-scope trust), and discuss how these measures differ from generalized trust (i.e. trust in other people with whom there is no direct relationship). Finally, we survey the determinants of trust in financial institutions and discuss a wide range of drivers. First, trust in financial institutions depends on the economic situation: it behaves procyclically and is negatively affected by financial crises. Second, the behavior of the financial institutions matters: prudent conduct, the provision of good services and financial health have a positive effect on trust. Third, although consumer characteristics also relate to trust, many of these relationships are context-dependent. Fourth, there is a positive association between narrow-scope trust on the one hand and broad-scope trust and generalized trust on the other. Last, policy measures and supervisory actions can help prevent loss of trust.

Keywords: trust in financial institutions; drivers of trust in financial institutions; survey.

JEL classifications: D12, D83, E58, G21, G22.

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1. Introduction

After the global financial crisis (GFC), only 22 percent of Americans trusted financial institutions. Since then, trust in the financial sector has increased to 33 percent in 2019, the highest level since the Chicago Booth/Kellogg School Financial Trust Index started in 2008 (Sapienza and Zingales, 2020).[1] Despite this increase, the financial sector world-wide remains the least trusted sector in the 2019 version of the Edelman Trust Barometer. In 15 out of 26 markets considered in the Trust Barometer, the sector is distrusted (i.e. receives a score below 5 on a 9-point scale, where 1 means no trust at all).

Guiso (2010: 7) defines trust as "the belief that an opponent in a relationship behaves accordingly to what he promised and does not take advantage of the person he is trading with. In other words, it is the probability that person A trading with B attaches to the possibility that B will behave opportunistically and take advantage of him. Trust is thus A's probability that B will not "cheat"." Trust in the financial sector may be defined as consumers' expectation that financial institutions are generally dependable and can be relied on to deliver on their promises (Sirdeshmukh et al., 2002).

In other countries trust in financial institutions also dropped considerably after the GFC.[2] Figure 1 shows, for illustrative purposes, how trust in different financial institutions in the Netherlands evolved.[3] The graphs in the figure show both narrow-scope and broad-scope trust, the difference being the trust respondents have in their own financial institutions and financial institutions in general (see section 3 for more details). Figure 1 shows that trust in financial institutions declined during the financial crisis; it has not yet fully recovered. The figure also suggests that trust in respondents' own financial institutions is generally higher than their trust in financial institutions in general. Finally, the figure shows that trust in different types of financial institutions differs considerably: trust in banks is generally higher than trust in insurance companies and pension funds.[4]

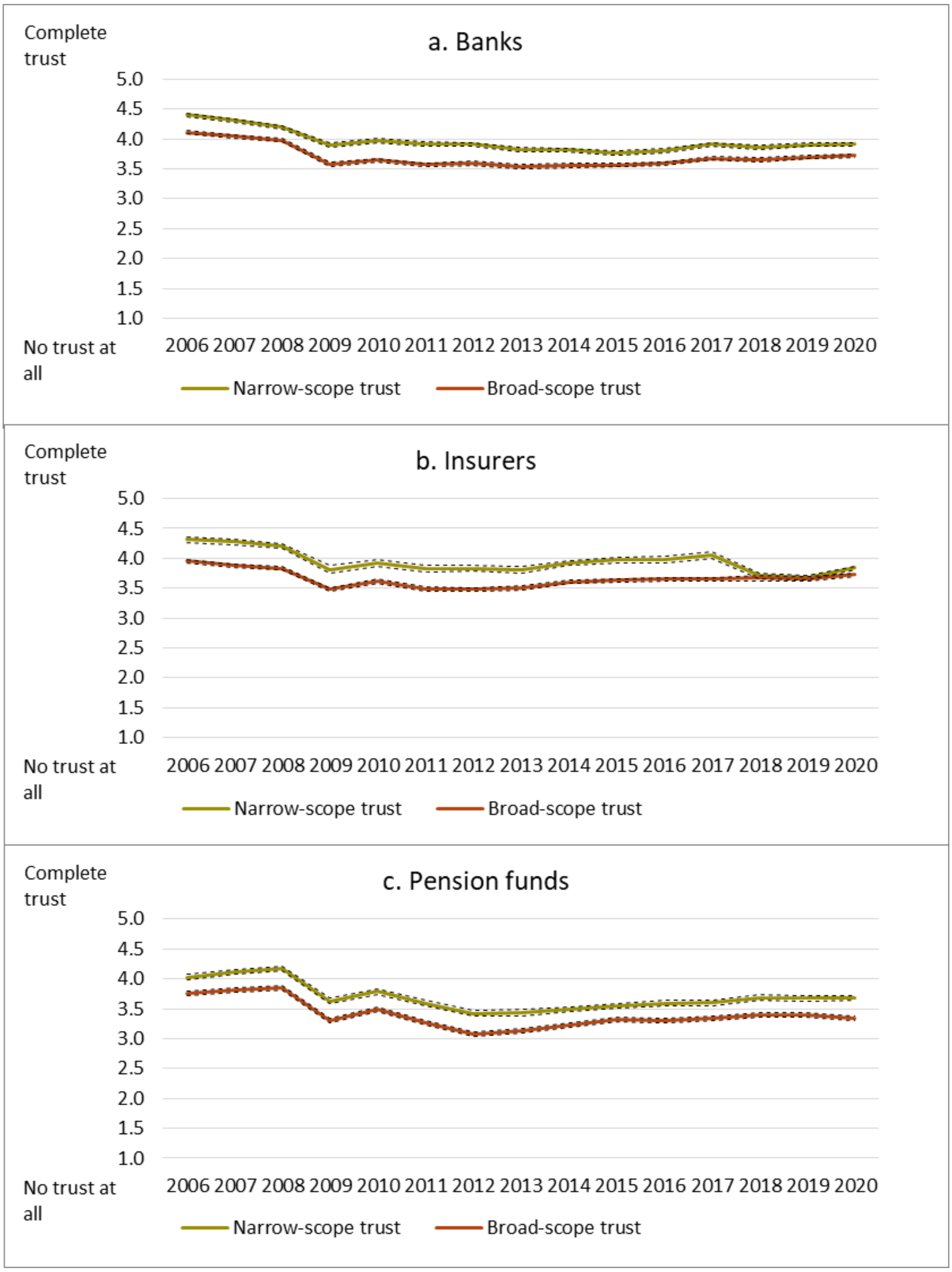
[1] Several studies report a decline of trust in banks after the outbreak of the financial crisis (Guiso, 2010; Guiso, 2012; Sapienza and Zingales, 2012; Knell and Stix, 2015).

[2] Järvinen (2014) reports substantial variation in trust in banks across European countries. Consumer trust towards banking is the highest in Malta, while it is also high in Finland, Luxembourg, Estonia, and Germany. Consumer trust is the lowest in Spain, Iceland, Portugal, Ireland, and Italy.

[3] The data are from the DNB Trust Survey (DTS). The DTS is held among the CentERpanel, a representative sample of the Dutch-speaking population in the Netherlands. This internet-based panel consists of approximately 2,000 households. The DTS includes questions to measure trust in banks, pension funds and insurance companies. See Van der Cruijsen et al. (2019) for further details.

[4] Likewise, Tranter and Booth (2019) find that trust in insurance companies in Australia is lower than trust in banks.

Figure 1. Trust in the financial health of financial institutions



Source: DTS.
Note: The figures report average levels of trust with 95% confidence intervals. From 2006-2016 and in 2020 all respondents answered the question about broad-scope trust in insurance companies, whereas in 2018 and 2019 the question was only answered by respondents with a life insurance. As of 2020 narrow-scope trust in insurance companies captures all types of insurers.

This paper surveys the literature on the drivers of trust (of the general public or of customers) in financial institutions.[5] We first discuss why trust in financial institutions is important (section 2). The main reasons why trust is important are financial stability concerns and the viability of financial institutions' business model. Low trust in the financial sector may undermine financial stability (Guiso, 2010). In the worst case, it may even lead to bank runs. Low trust may also damage the financial services industry. If the industry is not trusted, then consumers will choose to engage less, which, in turn, will damage both the industry and the economy, by reducing the availability of capital for productive purposes (Jaffer et al., 2014). In addition, consumers may switch to non-financial suppliers of financial services such as technology companies and peer-to-peer markets.

Next, we turn to the measurement of trust in financial institutions (section 3). We distinguish between broad-scope trust (trust in financial institutions in general) and narrow-scope trust (trust in one's own financial institution). We highlight the wide range of narrow-scope and broad-scope trust measures used in the literature. Here we also discuss how trust in financial institutions differs from generalized trust. Generalized trust refers to trust in other people with whom there is no direct relationship. As Sapienza and Zingales (2012: 124) put it: "When we say we trust someone, we imply that we think that he will engage in beneficial, non-detrimental action so that we will consider cooperating with him." Finally, we survey the determinants of (broad-scope and narrow-scope) trust in financial institutions (section 4), where different drivers of trust are categorized in five groups: economic drivers (like financial crises), characteristics and behavior of financial institutions (like the quality of their services and their financial situation), characteristics of consumers (like demographic characteristics, their financial literacy and access to information, and economic and political views), policy measures and institutional settings, and other types of trust (like generalized trust). Most studies on trust in financial institutions are single-country studies, but there are also a few cross-country studies.

We conclude that it is important to distinguish between different financial institutions, like banks, insurance companies and pension funds. As these institutions have very different business models, the drivers of trust in banks, insurance companies and pension funds may differ. It turns out that most research on trust in financial institutions focuses on banks. As to the drivers of trust in financial institutions, we conclude that most studies focus on a limited set of potential determinants of trust. Apart from demographic variables, like age and gender, there is a large variability of potential drivers considered. There is no study that considers all these potential

[5] This implies that our paper has a narrow focus. There is an extensive literature, grounded in several strands of research, focusing on other dimensions of trust (like trust within organizations or trust of other stakeholders than clients) which we do not discuss. We refer to Rousseau et al. (1998) and Hurley et al. (2014) for discussions of this literature. We also do not discuss the literature on trust in central banks in their role as monetary policymaker; see Ehrmann et al. (2013) and references cited therein.

drivers simultaneously. With that caveat in mind, it seems that trust depends on the economic situation: trust behaves procyclically and is negatively affected by financial crises. Furthermore, the behavior of the financial institutions matters: their culture and behavior towards all stakeholders, their provision of good services, and financial health have a positive effect on trust. There is a positive association between narrow-scope trust and other trust measures: broad-scope trust, generalized trust and trust in the prudential supervisor, while certain policy measures (like introducing a deposit guarantee scheme) can prevent loss of trust. Finally, although trust relates to consumer characteristics (including their access to information sources, and their political and economic values), many of these relationships seem to be context-dependent (e.g. dependent on the specific trust measure, the financial institution considered, and the country and time period).

2. Why is trust important?

Trust in financial institutions is widely believed to be important for financial stability. Referring to the GFC, Guiso (2010: 2) even argues that: "the collapse in trust played a crucial role in the crisis as it led those who distrusted to run on their banks. This role is distinct from that played by the drop in confidence about the solvency of financial institutions and their ability to repay their obligations – the other factor that freezed up financial markets and led investors to run on banks. The collapse in trust was in fact provoked by the revelation of the opportunistic behaviors that the unfolding of the crisis brought to light, of which the Bernard Madoff fraud is emblematic, and has contributed to shed a dark light on the whole financial industry." Guiso (2010) reports that people who lost trust in their bank were more than four times more likely to run on the bank than those who retained full trust. Chernykh et al. (2019) also highlight that financial stability and trust are highly intertwined. Financial stability of the whole sector is a sine qua non to enhance public trust in individual banks. Sapienza and Zingales (2012) find that high trust in banks or bankers keeps people from withdrawing deposits and storing them as cash because they fear a bank's collapse.

Trust in financial institutions may thus enhance financial stability. But obviously the reverse also holds: financial instability, notably financial crises, may lead to lower trust in financial institutions (see section 4). And this effect may last for a long time. Osili and Paulson (2014) find that immigrants who experienced a systemic banking crisis prior to living in the US are less likely to have checking accounts in the US than immigrants from the same country without such an experience. The effect is strongest for immigrants who were older at the time of the crisis, probably because they are more likely to have had bank accounts and lost savings.[6]

Several authors allude to the crucial role of trust for the proper functioning of the financial sector. Harrison (2003: 206-07) argues, for instance, that "Financial services are highly intangible and, therefore, often difficult to understand. Information asymmetries are pronounced and there is heavy reliance on credence qualities for many products, placing greater emphasis on the role of advice from professionals. Not surprisingly, the perceived risk associated with the purchase of many financial products is particularly high. [...] In a financial services marketing exchange the customer is essentially buying a set of promises: the financial institution promises to take responsibility for looking after the buyer's funds and their financial welfare. Thus, trust is a generalised expectancy of how the financial institution will behave in the future. This generalised expectancy of behavior can be derived from beliefs of acceptable behavior or norms, or can be based on previous experience of the financial institution."

Referring to banks, Van Esterik-Plasmeijer and Van Raaij (2017: 97-98) argue that "Trust facilitates transactions with customers. Customers do not have to worry about their personal interests being taken care of, their savings with the bank, and the financial products they have bought or plan to purchase from the bank, which include insurance policies and mortgages. With a high level of trust, customers feel confident that their interests are well served by the bank. To a certain degree, a high level of trust is a buffer against negative experiences which can arise amongst customers. Customers tend to "forgive" a negative experience and perceive it as an exception if they trust the bank. With a low level of trust, however, a negative experience may be perceived as a "proof" that the bank cannot be trusted." Van Esterik-Plasmeijer and Van Raaij (2017) find that the likelihood that people recommend their bank to a friend, relative or colleague depends on the trust they have in their bank. Chang and Hung (2018) also find a significant positive impact of trust in banks on loyalty, which in their study captures consumers' intentions to use services again and recommend these to family and friends. Tabrani et al. (2018) show that higher trust leads to stronger commitment and customer intimacy, two factors that matter for customer loyalty.

With low trust, consumers may decide not to become customers of a financial institution. As pointed out by Ampudia and Palligkinis (2018), deposits from households constitute the main source of financing for euro area banks and in a high-competition environment, client attraction and retention are therefore of key importance for the success of banks' business. Using survey data from ten Central, Eastern and Southeastern European countries, Stix (2013) reports that

[6] Bilan et al. (2019) concentrate on the role of trust in explaining the causal mechanism between financial and business cycles. They provide a theoretical explanation for the fact that financial cycles are much longer than business cycles through the introduction of trust cycles as additional source of financial fluctuations.

distrustful people are less likely to have a savings account than trustful people and have stronger liquidity preferences. For the same countries, Beckmann and Mare (2017) report that trust in banks increases the probability of formal savings, particularly bank savings. These authors also find that households that distrust banks not only resort to informal savings but also to formal non-bank savings if they trust the stability of the financial system. Likewise, Ampudia and Palligkinis (2018) report that Italian households that do not trust the banking sector are less likely to hold a bank account. Using data for 123 countries and over 124,000 individuals, Allen et al. (2016) research the factors underpinning the use of accounts at banks, credit unions and other formal financial institutions. Lack of trust in these institutions is one of the reasons for financial exclusion. Trust is more likely to be perceived as a barrier in countries with relatively low branch penetration and a large share of foreign-controlled banks. Customers who trust their banks, will also trust financial innovations (like internet banking) introduced by these banks (Dimitriadis and Kyrezis, 2008).

Lachance and Tang (2012) show that trust in financial professionals is positively related to the use of five types of financial advice: savings and investment, tax planning, insurance, mortgage or loan, and debt counselling. Trust seems to be especially important when uncertainty is high; trust matters the most in case of financial advice on savings and investment and the least in case of debt counselling.

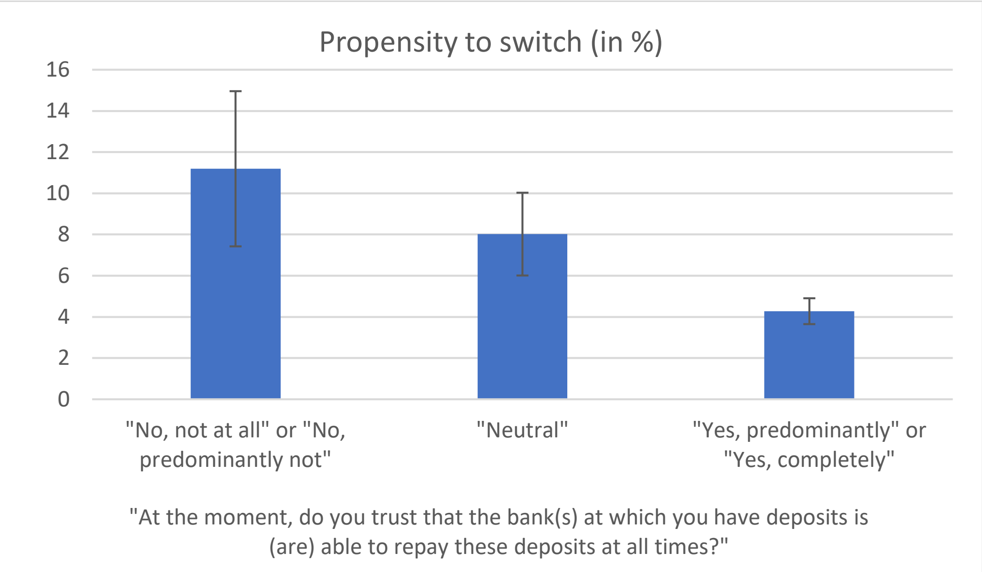
Trust in pension funds is key for the functioning of pension systems. Pension decisions like savings or enrollment in pension plans depend on it. Combining administrative and survey data, Agnew et al. (2012) find that Americans who do not trust financial institutions are more likely to exercise their right to quit automatic enrollment in 401(k) savings plans than people who trust financial institutions. Based on experimental data from a Dutch pension fund, Bockweg et al. (2018) show that people with greater trust in the pension fund and the pension system take up less lump sum. In line with this finding, based on survey data on the preferences of Dutch consumers, Van der Cruijsen and Jonker (2019) find that people who do not trust their pension fund are more likely to favour a lump sum over annuity-based arrangements. Van Dalen et al. (2010) and Chou et al. (2015) find a positive relationship between trust in pension institutions and the perceived adequacy of retirement savings. Burke and Hung (2019) show that financial trust is an important predictor of the use of financial advice, also related to retirement planning.

Lack of trust also hinders the adoption of insurance products. Based on a series of randomized field experiments in rural India, Cole et al. (2013) find that lack of trust constrains demand for innovative rainfall insurance products. Using US data, Balkrishnan et al. (2004) show that people with high trust in the health insurer are less likely to seek care from someone else than their primary care physician. Likewise, Brown et al. (2012) report that long-term care insurance ownership is relatively low among people who distrust insurance companies.

According to Bes et al. (2013), people with higher trust in their health insurer are more likely to accept selective contracting with care providers.

A loyal customer base contributes to the continuity of financial institutions and less money needs to be spent on attracting new customers (Van Esterik-Plasmeijer and Van Raaij, 2017). Low trust may make individual financial institutions vulnerable to a shifting and unstable customer base as it will reduce customer loyalty. To illustrate this, Figure 2 shows – for a sample of 2,296 Dutch households – that the propensity to switch to another bank is signifanctly higher for households that do not trust their own bank than for households that trust their own bank. Likewise, Ampudia and Palligkinis (2018) report that Italian households are more likely to switch to a new bank if they do not trust their own bank. Hauff (2019) also finds that the higher trust in the own bank is, the lower the intention to switch to another bank. However, Hansen (2014) reports on the basis of two surveys comprising 1,155 and 757 bank customers that consumers rely more on satisfaction and less on trust after the financial crisis than before the financial crisis when determining whether they should remain loyal to a particular financial service provider.[7]

Figure 2. A negative relationship between the propensity to switch and narrow-scope trust in banks



Source: The figure uses data from two surveys among the CentERpanel: the DTS 2019 (week 14 and 15 of 2019) and a survey about switching behavior (week 17-20 of 2019).
Note: The figure reports the mean answer to "What is the propensity that you will switch within the next twelve months with your main current account?" with 95% confidence intervals. The number of observations is 2,296.

Bijlsma et al. (2020) find that the degree to which newcomers in the Dutch retail payments market (like fintech companies) will be able to compete with incumbent parties depends on

[7] Trust may also mediate relationships. Based on two surveys comprising 1,155 bank consumers and 756 mutual fund investors, Hansen (2017), for instance, reports that broad-scope trust negatively moderates relations between consumers' knowledge and financial healthiness and between their cognitive effort and financial healthiness.

people's trust in these players compared to trust in their own and other banks. The more people trust a service provider, the more likely they are to consent to payments data usage and adopt account information and payment initiation services. A financial reward can tempt some people to adopt services from providers other than their own bank. Technology companies need to offer the strongest incentives, because people trust them the least. Van der Cruijsen (2020) also highlights the importance of narrow-scope trust for consumers' attitudes towards payment data usage. In various situations, the most frequently mentioned reason for finding payments data usage acceptable is trust that one's bank uses the data properly.

3. How to measure trust?

3.1 Broad-scope and narrow-scope trust

Several studies distinguish between broad-scope and narrow-scope trust because there can be a difference between these types of trust, their drivers and effects. According to Hansen (2012: 282), broad-scope trust can be defined "as the expectation held by the consumer that companies within a certain business type are generally dependable and can be relied on to deliver on their promises." Sirdeshmukh et al. (2002: 17) define narrow-scope trust as ''the expectation held by the consumer that the service provider [i.e., the specific financial institution] is dependable and can be relied on to deliver on its promises''.

Studies employ different proxies for these concepts. Some include questions directly asking respondents how much trust they have in financial institutions. For instance, Ampudia and Palligkinis (2018) raise the following question: "Do you trust your main bank, i.e. [bank name]? Please assign a score of 1 to 10, where 1 means "I don't trust it at all" and 10 means "I trust it completely" and the intermediate scores serve to graduate your response". In addition, the household is also asked about trust in the banking sector: "Could you please indicate your degree of trust in the banks?" where the same scores can be used. Knell and Stix (2015) ask a similar question to measure broad-scope trust in domestic banks.

Another example is the following question from the World Values Survey (WVS): "Could you tell me how much confidence you have in banks: Is it a great deal of confidence (1), quite a lot of confidence (2), not very much confidence (3) or none at all (4)?". Fungáčová et al. (2019) use this question to proxy trust. The question from the Gallup World Poll that Stevenson and Wolfers (2011) use is very similar: "In [country], do you have confidence in each of the following, or not?". One of the institutions on the list is "financial institutions or banks". In some studies, the question raised is even less specific and also captures trust in the financial system. For instance, Afandi and Habibov (2017) use the following question "To what extent do you trust in banks and in the financial system?" (1 = complete distrust, 2 = some distrust, 3 = neither trust nor distrust, 4 = some trust, 5 = complete trust).

Others ask more specific questions. For instance, Van der Cruijsen et al. (2019) pose the following questions: "In general, do you trust that banks in the Netherlands are able to repay deposits at all times?" and "At the moment, do you trust that the bank(s) at which you have deposits is (are) able to repay these deposits at all times?" (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely). Van der Cruijsen et al. (2016) use the same questions but also ask respondents: "During the past year have you ever thought about the possibility that banks in the Netherlands might go bankrupt?" (options include no never; no, not often; yes, now and then; yes, very often and I don't know/no opinion). Likewise, Carbó-Valverde et al. (2013) proxy trust in banks by the question: "I trust the solvency of commercial banks/savings banks in general and of my commercial bank/savings bank in particular." In their analysis of perceptions and expectations about pension savings Van Dalen and Henkens (2018) use the following question ''To what extent do you trust [pension funds/banks/insurance companies] in guaranteeing a comfortable pension?''; answer categories are: (1) no trust; (2) little trust; (3) neutral; (4) some trust; (5) a lot of trust.

In addition, several studies use specific questions that measure trust implicitly. For example, Brown et al. (2012) proxy trust by the respondents' agreement with the statements: "I am concerned that once I own a long-term care insurance policy, an insurance company might raise my premiums" and "I am concerned that an insurance company might deny reasonable claims for long-term care". Other examples are Prean and Stix (2011), who measure trust in banks indirectly by measuring the perceived safety of deposits, and Naumann (2018), who captures trust in pension funds by measuring the extent to which consumers have confidence in the future of their pension.

In addition, some studies analyse trust in the managers of financial institutions. For example, two of the measures used by Stevenson and Wolfers (2011) are based on the following questions: "I am going to name some institutions in this country. As far as the people running these institutions, would you say you have: a great deal of confidence, only some confidence, or hardly any confidence in them?" (General Social Survey (GSS)) and "Please tell me how you would rate the honesty and ethical standards of people in these different fields—very high, high, average, low or very low." (Gallup's Trust and Honesty polls). Another example is Van der Cruijsen et al. (2019) who measure both trust in the financial sector managers' integrity and trust in managers' competence.

There are also studies that use a combination of statements and extract a factor to measure trust. For example, Bravo et al. (2019) use agreement with the following statements measured on a ten point Likert scale: "I trust this bank", "This is an honest bank", "I rely on this bank", "This bank is safe". Burke and Hung (2019) build a financial trust measure using five types of trust: trust in the stock market, banks, insurance companies, stock brokers, and investment advisers. Another example is Bes et al. (2013) who use people's agreement with a list of statements to capture general trust in the health insurance company and specific trust in the company's purchasing strategy. Examples of statements are: "You worry that private information your health insurer has about you could be used against you" and "I trust my health insurer to choose the best care for me at the best price".

Chernykh et al. (2019) take an innovative approach to construct two trust measures: they use 125,217 online reviews of 263 Russian commercial banks submitted to the banki.ru website (a bank information website providing information about services and reviews about banks in Russia). Public Confidence in Bank Rate (PCBR) is a simple average of reviewers' grades and the Public Confidence in Bank Index (PCBI) is a Bayesian weighted average. These narrow-scope trust measures are not only based on many observations, they are also directly related to consumers' experiences with their bank. The ratings are likely to reflect perceived bank quality and trust that a bank acts in the interest of its customers, or at least does not harm them.

If these different ways of measuring trust are not highly correlated, this may explain why different studies may report contrary findings on the drivers of trust. For illustrative purposes, Table 1 shows the correlations between fourteen trust measures using the 2020 results of the DNB Trust Survey (DTS). These measures differ in the financial institution they cover (whole sector, banks, insurance companies or pension funds), whether they are broad-scope or narrow-scope measures of trust, and whether they are general, or based on the perceived financial health of institutions, the degree to which one has thought about the possibility that institutions may go bankrupt, or the managers' integrity or competence. Although the correlations in all cases are positive and significant ($p < 0.001$), they are far from perfect, ranging between 0.15 (the correlation between *trust in the financial sector* and *broad-scope trust in insurance companies: bankruptcy*) and 0.72 (the correlation between *narrow-scope trust in banks: financial health* and *broad-scope trust in banks: financial health*).

Table 1. Trust measures: correlation analysis

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
Financial sector														
Trust in the financial sector (1)	1.00													
Trust in the financial sector: managers' integrity (2)	0.40	1.00												
Trust in the financial sector: managers' competence (3)	0.28	0.52	1.00											
Banks														
Broad-scope trust in banks (4)	0.59	0.44	0.35	1.00										
Narrow-scope trust in banks: financial health (5)	0.36	0.32	0.27	0.42	1.00									
Broad-scope trust in banks: financial health (6)	0.36	0.34	0.29	0.42	0.72	1.00								
Broad-scope trust in banks: bankruptcy (7)	0.22	0.20	0.19	0.31	0.45	0.42	1.00							
Insurance companies														
Broad-scope trust in insurance companies (8)	0.50	0.41	0.30	0.67	0.34	0.34	0.25	1.00						
Narrow-scope trust in insurance companies: financial health (9)	0.26	0.29	0.28	0.30	0.46	0.42	0.29	0.36	1.00					
Broad-scope trust in insurance companies: financial health (10)	0.23	0.28	0.26	0.28	0.43	0.46	0.28	0.35	0.68	1.00				
Broad-scope trust in insurance companies: bankruptcy (11)	0.15	0.17	0.19	0.24	0.32	0.31	0.55	0.23	0.36	0.38	1.00			
Pension funds														
Broad-scope trust in pension funds (12)	0.48	0.38	0.31	0.49	0.34	0.32	0.23	0.52	0.28	0.27	0.21	1.00		
Narrow-scope trust in pension funds: financial health (13)	0.25	0.35	0.27	0.26	0.38	0.35	0.25	0.22	0.38	0.33	0.24	0.43	1.00	
Broad-scope trust in pension funds: financial health (14)	0.24	0.30	0.26	0.24	0.33	0.34	0.22	0.21	0.31	0.31	0.20	0.38	0.63	1.00

Source: 2020 DTS. See Appendix 1 for a description of the questions used to construct the trust measures.

Note: Spearman Rank correlations. Two-sided t-tests. In all cases the p-values are smaller than 0.001. Based on the 1,453 respondents for which all trust measures could be constructed.

3.2 Generalized trust

There is a related line of literature on generalized trust, which refers to trust in other people with whom there is no direct relationship. This form of trust can be contrasted with particularized trust, which arises when people are in direct contact with each other. Generalized trust is crucial for the functioning of market economies (Arrow, 1972; Putnam, 1993; Fukuyama, 1995; and Alesina and Ferrara, 2002). Most studies on generalized trust focus on cross-country comparisons and measure generalized trust as the share of a population answering yes to the following question from the WVS: "In general, do you think that most people can be trusted, or can't you be too careful in dealing with people?"[8]

Several studies have shown that generalized trust is also important for the financial sector. In their seminal paper, Guiso et al. (2008) develop a model showing that in the absence of any cost of participation, a low level of generalized trust can explain why a large fraction of individuals do not invest in the stock market. To test the model's predictions, the authors use a sample of 1,943 Dutch households of the annual De Nederlandsche Bank (DNB) Household Survey. They find that trusting individuals are significantly more likely to buy stocks and risky assets and, conditional on investing in stock, they invest a larger share of their wealth in it. This effect is economically very important: trusting others increases the probability of buying stock by 50% of the average sample probability and raises the share invested in stock by 3.4% points (15.5% of the sample mean).

Several other studies also report that generalized trust affects financial behavior.[9] For instance, El-Attar and Poschke (2011) find that Spanish households with less trust invest more in housing and less in financial assets, especially risky ones. Georgarakos and Pasini (2011) report that the effect of trust on holding stocks by the elderly is significant in countries with low stock market participation rates and relatively low average trust. In particular, they find very strong effects of trust for the wealthy households living in low-trust regions in Austria, Spain, and Italy. Balloch et al. (2015) report for US households that the probability of stock market participation is significantly related to households' level of trust in the stock market. Their results suggest that trusting households are more likely to invest in the stock market. Furthermore, they find that for a given level of trust, lack of stock market literacy additionally acts as a barrier to stock market participation. Likewise, Delis and Mylonidis (2015) confirm the importance of trust for the decision to participate in stock markets, although they also find that happiness works in the

[8] For further details we refer to Banfield (1958), Bjørnskov (2007) and Uslaner (2002, 2013) and references therein.

[9] Generalized trust may also affect financial integration. In their investigation of the degree of financial integration within and between European countries, Ekinci et al. (2007) find that regions where the level of trust is high are more financially integrated with each other. There is also a line of research examining the impact of generalized trust on financial development. In their recent meta-regression analysis of the literature on financial development, de Haan et al. (2020) conclude, however, that the literature has not yet robustly established that trust matters for financial development.

opposite direction and is economically more important than trust in determining households' financial decisions. Fisch and Seligman (2019) show that higher average trust in different types of people – from a car sales person to a doctor – is associated with increased financial market participation.

As will be discussed in the next section, generalized trust may also affect trust in financial institutions.

4. Drivers of trust in financial institutions

This section surveys studies on the drivers of trust in financial institutions. Different drivers of trust are categorized in five groups: economic factors (like financial crises), behavior and characteristics of financial institutions, consumer characteristics (like demographic characteristics, their financial literacy, and their economic and political views), generalized and broad-scope trust, and policy measures and institutional settings. Appendix 2 provides a summary of all studies discussed.

4.1 Economic factors

Trust in financial institutions depends on economic factors: it moves procyclically. Stevenson and Wolfers (2011) research trust in banks and financial institutions and in bankers in the US and find a strong negative relationship with the *unemployment* rate. The procyclicality of trust is confirmed by a cross-country analysis for 98 countries: countries with the largest rise in unemployment also experienced a dramatic decline of trust in financial institutions and banks. The link is strongest in OECD countries.

Using data on trust in banks in Austria, Knell and Stix (2015) also find a procyclical movement of trust, but the explanatory power of the unemployment rate is rather weak in their case. Consumers' views of the general economic situation, their own financial situation and the *stability of prices* are most important in explaining trust. Likewise, using a survey for Croatia, Prean and Stix (2011) find that the perceived safety of deposits – their measure of trust in banks – is relatively low for people with high inflation expectations. However, Fungáčová and Weill (2018) do not find any effect of inflation on broad-scope trust in Chinese banks. These authors consider a broad range of indicators (at the province level) as drivers of trust, but the only factor that matters is the size of the banking sector: a larger banking sector goes along with higher trust levels.[10] This may be caused by the more frequent interactions with customers.

The economic situation is also relevant for trust in financial institutions other than banks. Based on Eurobarometer data for 25 European countries, Naumann (2018), for instance, reports

[10] Fungáčová and Weill (2018) find no significant effect for inflation, banks' non-performing loan ratio, marketization, Gross Regional Product per capita, government expenditures and the legal framework.

that the unemployment rate is negatively associated with consumers' trust in the future of their pensions.

A *financial crisis* generally leads to a decline in trust in financial institutions (Guiso, 2010; Guiso, 2012; Sapienza and Zingales, 2012; Knell and Stix, 2015). Using WVS data covering 52 countries during the period 2010–2014, Fungácová et al. (2019) report in a recent study that the only country level factor that significantly relates to trust in banks is the occurrence of a financial crisis. The other economic drivers considered (the level of income per capita, bank concentration, and the presence of a deposit insurance scheme) are not significant. Likewise, in her study on the bank-switching behavior of customers of Swedish banks, Hauff (2019) finds that trust positively depends on perceived stability of the own bank.

People's personal experience of crisis may play a role here. For instance, using eight annual household surveys for the Netherlands between 2006 and 2013, Van der Cruijsen et al. (2016) examine whether consumers' personal crisis experience affected their trust in banks. Their results suggest that respondents who were customer of a bank that was bailed out by the government are less positive about the relative liquidity position of their own bank than respondents without this experience. In addition, respondents who were customer of a bank that failed are more likely to have considered the possibility of a bank failure. Likewise, Van der Cruijsen et al. (2019) report that broad-scope trust in banks in the Netherlands is lower for people whose bank had been bailed-out. This effect is economically significant. For example, people are 5 percentage points less likely to predominantly or completely trust banks in the year after they experienced a bail-out of their bank than people without such a personal crisis experience. The findings of Knell and Stix (2015) for Austria also suggest experienced losses or bank failures exert a large negative effect on trust in banks. Similarly, Afandi and Habibov (2017) conclude for their sample of transition economies that trust in banks strongly depends on the extent to which a household was affected by the crisis and the experience of a wage loss. However, their results suggest that the financial crisis only had a temporary and relatively small impact on trust in banks. In contrast, as pointed out earlier, Osili and Paulson (2014) find that crisis experiences can have long-lasting effects on trust.

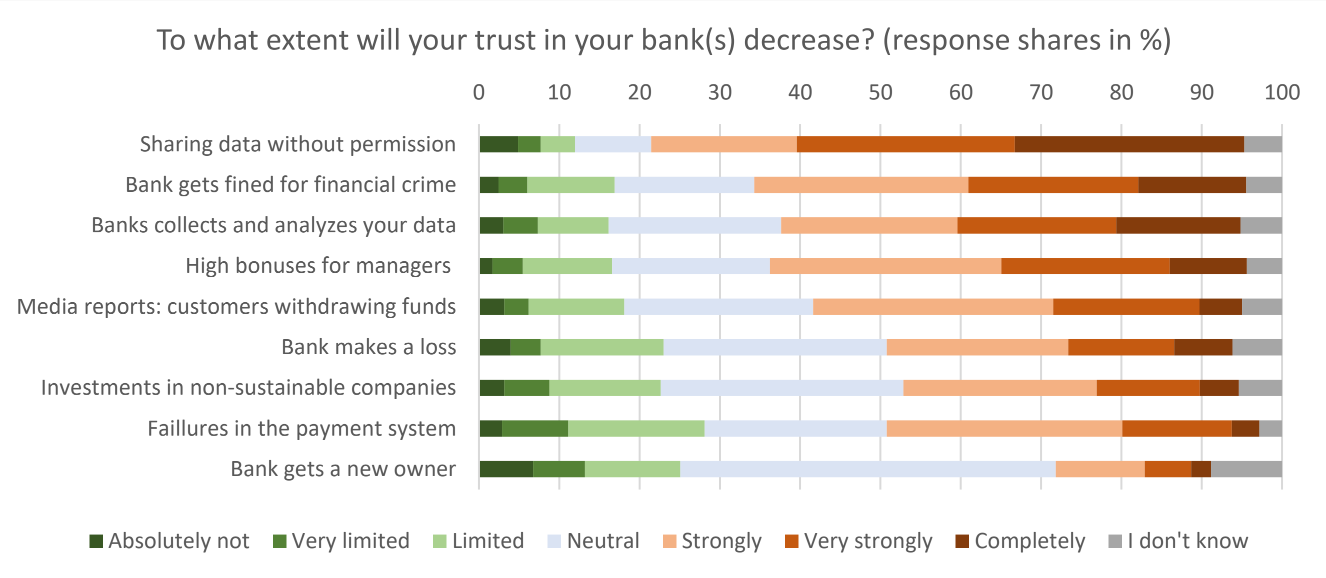
A financial crisis may not only have a direct impact on trust, it can also change the (effect of other) drivers of trust and the extent to which trust matters for financial decisions. The findings of Hansen (2014) on trust in banks by Danish consumers illustrate this point well. He finds that after the GFC, consumers rely more on satisfaction and less on trust when deciding whether they should remain loyal to their bank. Only before the GFC, narrow-scope trust in banks was significantly positively related to consumers' financial healthiness, and only after the GFC it was significantly associated with the perceived functioning of the financial market, a measure that is based on consumers' agreement with statements about transparency of the bank services market, the disclosure of useful information by banks and the ease of switching to another bank.

4.2 Behavior and characteristics of financial institutions

Trust in financial institutions depends on the behavior and characteristics of these institutions. Starting with behavior, various studies show that prudent behavior, which is characterized by a long-term focus – taking into account the interest of all its stakeholders – as opposed to short-term profit maximization, has a positive effect on consumers' trust. For example, Van Dalen and Henkens (2018) find that trust in Dutch pension providers (pension funds, banks and insurance companies) depends on their perceived integrity, competence, stability and benevolence. Transparency is not important, according to the findings of these authors. They also show that trust in pension funds is higher than trust in banks or insurance companies. Especially with respect to traits such as integrity and benevolence pension funds score better, so fewer people view pension funds as dishonest or think that they are focused on the organisation's interest and not on the customer's interest. For pensioners and workers, the likelihood of trusting their pension fund is much lower in case they perceive that their pension fund had financial problems in recent years (Van der Cruijsen and Jonker, 2019). These authors also report that cutting pension benefits lowers trust. Likewise, for pensioners they find that refraining from (full) indexation of pension rights has a negative effect on trust. There is no significant link between trust and higher employers' or employees' pension contributions. Naumann (2018) finds that a higher dependency ratio and replacement rate are negatively related to EU consumers' trust in the future of their pensions.

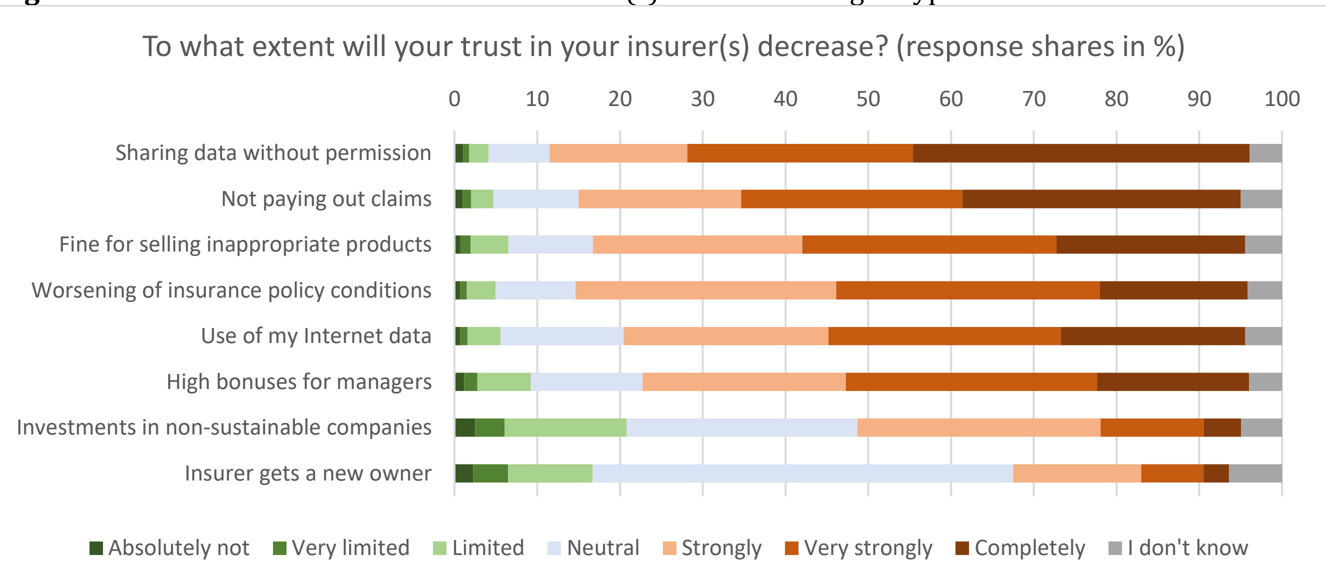
Van Esterik-Plasmeijer and Van Raaij (2017) find that integrity plays a key role in explaining narrow-scope trust in Dutch banks. Other bank characteristics that drive trust are customer orientation, competence, and – contrary to the findings of Van Dalen and Henkens (2018) for pension providers – perceived transparency. Jansen et al. (2015) asked a representative panel of the Dutch public to what extent eight different hypothetical situations would lead them to withdraw funds from their bank because they no longer trust their bank. People care most strongly about executive compensation. In the 2012 survey it ranks first, while in the 2010 survey it is the second-most important reason. Self-reported trust loss is also relatively high in case of negative media reports, falling stock prices and opaque product information. Using 2016 data and an updated list of factors, Van der Cruijsen (2020) shows that the Dutch indicate that the selling of their data by banks to other companies would result in the strongest decline of trust.[11] In 2020, the sharing of data with third parties without consumers' approval is the main factor triggering lower trust, both in case of banks (Figure 3) and insurers (Figure 4).

Figure 3. Extent to which trust in the own bank(s) decreases in nine hypothetical situations.



Source: DTS 2020.
Note: The number of observations is 2,445.

Figure 4. Extent to which trust in the own insurer(s) decreases in eight hypothetical situations.



Source: DTS 2020.
Note: The number of observations is 2,434.

[11] Note that the question was phrased slightly different from that of Jansen et al. (2015): "Suppose one of the following events occurs at you bank(s). To what extent will your trust in your bank(s) decrease?" instead of "How likely is it, that because of the following events, you will withdraw the funds from your bank, as you no longer trust the bank due to these events?". The factor "Your bank(s) wants (want) to sell your customer data to other companies" was not included in Jansen et al. (2015).

A few studies report how bankers think they can restore trust in their institutions. Based on survey data collected among more than six hundred bankers, Van Staveren (2018) finds that according to these bankers the dominance of a competitive banking culture is a reason why trust in banks in the Netherlands remained low. Trust may be restored if banks change this competitive culture with a focus on relationships and open discussion of ethical dilemmas and focus less on performance targets, financial incentives, and behavioral regulation. Ahmed et al. (2020) interviewed twenty frontline banking employees ("grass-roots level officials") to study efforts to restore trust in the UK retail banking industry. Thematic analysis of the interview transcripts shows three major ways to restore bank customers' trust: increasing transparency about banking activities, implementing policies and procedures that can help strengthen their relationship banking, and improving the IT infrastructure. One strategy to restore trust that is often suggested is to listen better to customers. Hoff-Clausen (2013) shows that although such an approach may be a tool to restore trust, it is hard to implement. For the case of the Danske Bank, the texts of the campaign to restore trust during the GFC explicitly invited public participation, but in practice it did not give the public a meaningful speaking position. For example, there was a word limit with respect to the comments that people could put on the campaign website, they could not interact with other users, and the Danske Bank ultimately decided on the summary of the comments posted.

Several studies report that the *quality of the services* offered by financial institutions affects consumers' trust in these institutions. For Taiwan, Chang and Hung (2018) report that good service recovery (actions that turn upset customers into satisfied customers) and relational selling behavior have a significant positive effect on trust in banks. For Spain, Bravo et al. (2019) show that trust in the own main bank positively depends on service perception, especially of offline services. So experiences in bank branches matter more than online experiences. Stronger trust goes along with stronger customer commitment and engagement. Phan and Ghantous (2013) find that trust depends on a wide range of factors, such as the perceived image and reputation of the bank, the perceived competence and helpfulness of its personnel, and whether people think it is well-located and offers innovative products. Carbó-Valverde et al. (2013) analyze trust in the solvency of commercial banks/savings banks in Spain and conclude that trust depends on customers' perceptions of performance characteristics and attributes. For example, trust positively depends on the perceived sensitivity of banks towards customers' problems and effectiveness in finding answers towards these problems. Hansen (2012) finds that trust in Danish pension and mortgage companies is positively associated with the degree to which customers are satisfied about the relationship they have with the financial service provider. Hansen (2014) shows the importance of the perceived relationship for banks in Denmark. Focusing on Sweden, Hauff (2019) finds that trust positively depends on the strength of the relationship with bank personnel.

Trust in financial institutions also depends on (perceptions of) the *financial health* of the financial institution itself and financial institutions in general. For example, using their trust measures based on consumer feedback on bank products and services (see section 3), Chernykh et al. (2019: 28) conclude that trust in Russian banks during the period 2010-2017 is highly sensitive to the overall financial health of the banking industry, arguing that their results “support the robust role of system-wide indicators of financial stability (such as cumulative number of failed banks, depositors affected by such failures and total bad debt in the sector) in framing the perceptions of retail customers about their own banks’ soundness. Contrary to common belief, bank-level risk characteristics play only a marginal role in explaining public confidence in a bank.” In contrast, Ampudia and Palligkinis (2018) find that households have more trust in banks which are profitable, have fewer non-performing loans and rely more on deposits for their funding. The corporate structure of the bank and the promotion efforts made by the bank (proxied by marketing expenses over total assets) turn out to be insignificant. The first finding is quite remarkable as in the US credit unions, regional and community banks have shown generally higher trust than larger banks (Hurley et al., 2014). Ampudia and Palligkinis (2018) report that households trust listed banks less. Knell and Stix (2015) find that trust is negatively related to the quarterly change in loan loss provisions of the banking system.

For pensioners and workers in the Netherlands, the likelihood of trusting their pension fund is much lower if they perceive that their pension fund had financial problems in recent years (Van der Cruijsen and Jonker, 2019).

Other characteristics of financial institutions matter too. Kaabachi (2017) finds that trust in French internet-only banks is driven by the perceived quality of security and privacy policies, perceived website quality, and the perceived quality of the bank. Other factors that matter are the perceived relative advantages of internet banking (e.g. service quality and financial incentives) and consumers’ familiarity with internet banking. Ibe-enwo et al. (2019) show that trust in banks in North Cyprus positively depends on green banking practice and the bank’s green image. This implies that activities that signal commitment towards environmental goals and communication about these green activities may be a good strategy to strengthen customers’ trust. Finally, proximity matters: access to banks increases trust (Filipiak, 2016). The latter study examines the relationship between individual trust in financial institutions (proxied by an invidual’s willingness to open an account at a bank) and individual access to these institutions, using a large-scale survey of savings patterns in India.

4.3 Consumer characteristics

Apart from demographic variables like age and gender, which will be discussed below, three characteristics of people have been considered as potential drivers of trust in financial institutions, namely previous experience with financial institutions (apart from crisis experiences which have been discussed in section 4.1), financial literacy, and political and economic values.

Starting with *previous experiences*, some studies show that they drive consumers' trust in financial institutions. For instance, Guiso (2010) uses data for a sample of individuals in the then 26 countries of the European Union asking whether they felt that a bank or insurance company failed to offer them the best deal. It turns out that a non-negligible fraction of people in all countries, varying between 9 and 32 percent, report having been deceived one or more times by an intermediary. Respondents who felt they were cheated more often in the past 5 years tend to trust intermediaries less than those who were cheated less often or were not cheated at all. Other studies reporting similar evidence that previous experience is related to trust include Zheng et al. (2002), Dugan et al. (2005), Goold et al. (2006), Ennew and Sekhon (2007) and Hansen (2012; 2014). For health insurers, notably absence of a dispute seems to matter (Zheng et al., 2002 and Dugan et al., 2005).

Continuing with *financial literacy*, Hansen (2012; 2014) argues that consumers with more knowledge will be more trustful towards their own financial institution than less knowledgeable consumers.[12] Knowledgeable consumers have a better ability to evaluate information and are likely to make better decisions about which service provider to choose. Furthermore, knowledge facilitates the learning of new information so that knowledgeable consumers may acquire and retain more information than less knowledgeable consumers. Knowledge may also allow consumers to formulate more questions so that knowledgeable consumers may be more aware of what is possible for a financial service provider and may facilitate consumers' understanding of the behavior of a financial service provider. Furthermore, knowledgeable consumers may better understand the financial products and services provided by financial institutions; they are not surprised by the providers of these products and services, which may enhance their trust in these institutions. On the other hand, increased knowledge could backfire because knowledgeable consumers may be more able to detect the limitations of a financial service provider, thus decreasing trust. But Hansen (2012) argues that research from other areas suggests a positive relationship between individuals' knowledge and trust.

Likewise, some studies argue in favour of a positive relationship between financial literacy and broad-scope trust. As pointed out by Kersting at al. (2015), individuals with low financial literacy do not have a general understanding of how the financial system functions. This lack of

[12] The following paragraphs heavily draw on the revised version of van der Cruijsen et al. (2019).

knowledge may lead to mistrust since individuals may doubt any information they receive. On the other hand, Kersting et al. (2015) also refer to psychological literature suggesting that more knowledgeable employees are less trusting of their employer than less knowledgeable employees. Extending this logic to financial institutions, it may be argued that financial literacy is negatively related to broad-scope trust. Individuals with high financial literacy may better understand how self-interested actions of financial institutions may have a negative impact on clients (Nuñez Letamendia and Poher, 2020).

Studies considering this potential driver of trust show mixed results. Whereas Hansen (2012), Hansen (2014), Van der Cruijsen et al. (2019), Van der Cruijsen and Jonker (2019) find a significant and positive relationship between financial literacy and trust, Ampudia and Palligkinis (2018) report that financial literacy is negatively related to broad-scope and narrow-scope trust, but the effect is only significant in case of broad-scope trust. This may reflect their measurement of financial literacy. These authors include a dummy variable that takes a value of 1 for households that give correct answers to 3 questions that measure knowledge regarding the types of mortgage contracts, inflation and portfolio diversification. If a household gives at least one wrong answer, the financial literacy dummy takes a value of 0 (31.5% of the households in their sample answer all the questions correctly). Using an experimental approach, Kersting et al. (2015) find a negative association between financial literacy and trust in the financial market. Their financial literacy measure is also based on financial knowledge questions. In contrast, other studies, like Hansen (2012; 2014), and Van der Cruijsen et al. (2019), use self-reported financial literacy. Note that Hansen (2012; 2014) also finds a positive effect of healthy financial behavior by consumers on trust.[13] Lachance and Tang (2012) report that the relationship between financial literacy and trust in financial advisors is inversely U-shaped. People with very poor financial knowledge and people with very good financial knowledge have the lowest levels of trust. At a low level of financial literacy, there is a positive relationship (familiarity breeds trust) and at a high level there is a negative relationship (people become more critical). To measure financial literacy Lachance and Tang (2012) use the five standard knowledge questions of Lusardi and Mitchell (2009). The financial literacy score is computed by adding the number of correct answers. Focusing on young adults in the US, Shim et al. (2013) find a significant positive effect of subjective financial knowledge on trust in banks and financial institutions but no effect of objective financial knowledge based on fifteen knowledge questions. This finding suggests that the inconclusiveness of the financial literacy effect may be the result of the inclusion of different financial literacy

[13] In Hansen (2012) narrow-scope trust is measured on a 3-item scale: "I believe that my [financial service provider] cannot be relied upon to keep its promises", "I believe that my [financial service provider] is trustworthy", and "Overall, I believe my [financial service provider] is honest". Hansen (2014) uses three similar items. The only difference is that "[financial service provider]" is replaced by "bank".

measures. In addition, if the relationship between financial knowledge and trust is indeed non-linear, this may drive the contrasting results of studies that do not consider this non-linearity. Moreover – as is the case for all drivers of trust – findings are likely to depend on the exact context and the trust measure used. The relevance of the type of financial literacy and trust measures used is illustrated well by the findings of Nuñez Letamendia and Poher (2020) who employ three different financial literacy measures (basic financial literacy based on four knowledge questions, self-assessed financial knowledge of investment products and financial awareness on the role played by financial institutions) and different types of trust (trust in financial institutions, trust in banks, perceived honesty of banks, and perceived solvency of banks). In all cases there is a positive association between financial literacy and trust. However, the strength depends on the type of financial knowledge and trust. Financial knowledge of investment products turns out to be most strongly related to financial trust. Nuñez Letamendia and Poher (2020) also find that the perceived levels of honesty and solvency of banks are relatively low for people with low financial awareness.

Related to financial literacy is access to information. Several studies show that trust depends on access to information sources. For example, in their cross-country study, Fungácová et al. (2019) find that access to information can be beneficial or detrimental for trust depending on the information source. While daily internet use to learn about national and international current affairs erodes trust, daily television and newspaper access enhance it, although the support is limited in the case of newspapers. Explaining their findings, these authors state: "Access to television or newspapers may foster trust in banks because financial institutions use these communication channels to provide information on their products and because authorities use these particular media to disseminate views that boost confidence in the financial system. Conversely, the negative influence of internet access suggests banks are less likely to favour this communication channel for promoting their products. Moreover, regulation of internet speech is lower than in more established media, making it a better platform for spreading negative sentiments or rumors about financial institutions." (p. 464). In contrast, Fungáčová and Weill (2018) find that daily access to information does not seem to matter for trust in Chinese banks, regardless of the information source (television, internet or newspaper). Van der Cruijsen and Jonker (2019) show that the gathering of information on pensions has a positive effect on workers' trust in pension funds.

Finally, the *political and economic values* of respondents may be related to trust. However, a clear picture does not emerge from studies that research these factors. With respect to economic values, Fungácová et al. (2019) find that people with pro-market economic views – i.e. individuals who favor hard work and lower government ownership and think that larger income differences are needed as incentives for individual effort – exhibit higher trust than people with negative attitudes toward the market. Fungáčová and Weill (2018) research whether trust in Chinese banks depends on individuals' attitudes toward the market and the role of state in the economy. They find that people who support increased government ownership of business and industry and those who favour inequality as an incentive for individual effort exhibit relatively high levels of trust. Trust in banks is unrelated to whether one thinks competition is harmful.

Regarding political values, Fungácová et al. (2019) find relatively high trust levels for individuals who place importance on wealth, on helping society and with greater preference for democracy. However, they find no relationship with individuals' environmental concerns. Fungáčová and Weill (2018) show that trust in Chinese banks is relatively low for members of the Communist Party. Tranter and Booth (2019) find that trust in insurance companies and banks and financial institutions in Australia is higher for people who identify with the Liberal Party and the National Party than for those who identify with other political parties. According to Knell and Stix (2015), individuals with a clear political conviction (attached to left-wing or right-wing parties) have higher trust in domestic banks than those without a strong party affiliation. People who feel strongly attached to a left party gained trust during the GFC, whereas people attached to right-wing parties lost trust. According to Naumann (2018), individuals in EU countries with a left-wing political ideology have more trust in the future of their pensions than those with a centre or right-wing ideology.

Studies analysing to what extent trust relates to *sociodemographic characteristics* show mixed results. One such demographic factor is *age*. In their research on trust in banks in the Netherlands, Van der Cruijsen et al. (2016) find that older people are more likely to consider the possibility of a bank failure. Likewise, using WVS data on 52 countries during the period 2010-2014, Fungácová et al. (2019) show that trust in banks decreases with age. Afandi and Habibov (2017), who examine the drivers of trust in banks in transition economies using 2006 and 2010 survey data from 29 countries, also find that trust in banks is relatively high for young people. In contrast, Fungáčová and Weill (2018) report in their study on broad-scope trust in Chinese banks that old people exhibit higher trust in banks. Focusing on pensions in EU countries, Naumann (2018) also reports that people aged 60 and above have more trust. Likewise, Van der Cruijsen and Jonker (2019) conclude that young people portray lower levels of trust in their pension funds than middle-aged people. Nuñez Letamendia and Poher (2020) find that the age effect depends on the type of trust. In case of trust in the financial system and in banks there is a negative effect of age, whereas the age effect is positive in case of trust in the solvency and honesty of banks.

Van der Cruijsen et al. (2016) and Fungáčová and Weill (2018) report that *gender* is not significantly related to trust in banks. However, Ennew and Sekhon (2007), Fungácová et al. (2019), Järvinen (2014), Tranter and Booth (2019) find that trust is higher for women than for men, whereas Naumann (2018) finds the opposite result. Nuñez Letamendia and Poher (2020) show that the gender effect depends on the type of trust. Women have relatively high trust in the financial system and in banks, whereas men have more trust in the solvency of banks.

Also *education* has been widely researched. Van der Cruijsen et al. (2016) conclude that more educated people are more likely to consider the possibility of bank failure than less educated people. Likewise, Fungáčová and Weill (2018) find that trust is low for more highly educated people. But Tranter and Booth (2019) report that trust in insurance companies is relatively high for individuals holding a post-secondary certificate or diploma and for those who last attended a government school. Likewise, the results of Shim et al. (2013) and Afandi and Habibov (2017) suggest that trust in banks is relatively high for people with a university education. Van Dalen and Henkens (2018) show a positive effect of education on Dutch pension funds participants' trust in pension providers (banks, insurance companies and pension funds). However, Järvinen (2014) concludes that length of education is not related to trust in banks.

Also *income* and *wealth* have been included in many studies. Van der Cruijsen et al. (2016) report that house owners are less positive about the relative liquidity position of their bank than respondents who don't own a house. But Van der Cruijsen and Jonker (2019) find that trust in pension funds is high for pensioners who own a house. Similarly, Ampudia and Palligkinis (2018) conclude that households in the lowest income or wealth quintile exhibit lower trust. Households that trade securities, make mortgage payments, or pay their utility bills through the bank trust their bank more. Likewise, Shim et al. (2013) find that trust of young adults in banks and financial institutions positively depends on self-assessed financial well-being and their financial status. Naumann (2018) also reports that people with a good financial situation have more trust in their pension providers, while Fungáčová and Weill (2018) report that trust in banks is significantly positively related to the satisfaction with the current financial situation. In constrast, it is not significantly related to income.

Religion is only considered by Fungácová et al. (2019), who show that Hindus and Buddhists have a higher degree of trust than Protestants. In contrast, people with Christian hierarchical religions (Catholicism and Orthodox Christianity) have lower trust in banks than Protestants, whereas Muslims have about the same level of trust.

A couple of studies conclude that sociodemographic factors cannot explain much of the trust differences between people or highlight that these factors do not help explaining changes in trust over time. For example, Carbó-Valverde et al. (2013) conclude for the case of Spanish banks that there are very few differences in the level of trust towards banks along sociodemographic lines (gender, age, employment situation, education status, marital status and income). The results of Knell and Stix (2015) suggest that trust in domestic banks depends on sociodemographic variables but as these variables do not vary much over time they do not help much in explaining changes in trust over time. These authors find that trust in domestic banks is highest among young people and women. There is a positive link between trust and income, and the unemployed have a relatively low level of trust.

To summarize, only some relationships with personal characteristics are clear-cut. Negative experiences with financial institutions decrease trust and most studies that include self-assessed financial literacy find that it goes along with a higher level of trust. However, the results on sociodemographic factors are mixed. Results clearly depend on how trust is measured and the context, such as the country studied, and also on the other factors incorporated in the analysis.

4.4 Generalized trust and broad-scope trust

Trust in financial institutions is related to other types of trust. Some papers have examined whether there is a relationship between *generalized trust,* which refers to trust in other people with whom there is no direct relationship, on the one hand and broad-scope and/or narrow-scope trust in financial institutions on the other. Most of these studies report a positive relationship. For example, Afandi and Habibov (2017) and Fungácová et al. (2019) find a positive relationship for banks and Tranter and Booth (2019) for insurance companies and banks. Using data from the WVS and structural equation modeling and cluster analysis, Buriak et al. (2019) also find a positive link between trust in banks and generalized trust. Van Esterik-Plasmeijer and Van Raaij (2017) find that people who trust other people are also more likely to trust the Dutch banking system. Van der Cruijsen et al. (2019) confirm this and show that it also holds for insurance companies and pension funds. However, focussing on Italy, Ampudia and Palligkinis (2018) find that people have more trust in their main bank than in other people and that the correlation between these two trust measures is practically 0.

Others analyse the *relationship between broad-scope trust and narrow-scope trust*. According to Hansen (2012), institutional theory suggests that the processes and structures that are established within a society act as authoritative guidelines for social behavior. Organizations that operate outside of accepted norms in the organizational field lack legitimacy, which may affect their survival. Hansen therefore concludes that if trust is common within a business type, it encourages the development of trust in customer–seller relationships suggesting the existence of a positive relationship between broad-scope trust and narrow-scope trust. As pointed out by Van Esterik-Plasmeijer and Van Raaij (2017), positive personal experiences, satisfaction, and trust with regard to a specific bank may be applied to banks in general. Although the causality runs in the opposite direction, i.e. from narrow-scope trust to broad-scope trust, this reasoning also implies a positive relationship between both types of trust in financial institutions. On the other hand, Van Esterik-Plasmeijer and Van Raaij (2017: 100) argue that “functionalist theory…. predicts that institution trust will only develop if and where needed. If system trust is low, institutions compensate for this by developing institution trust." This suggests a negative correlation between system trust and institution trust.

Most studies that examine the relationship between broad-scope and narrow-scope trust find that it is positive. For example, Hansen (2012) shows a significant positive association between broad-scope and narrow-scope trust for pension and mortgage companies in Denmark, Van Esterik-Plasmeijer and Van Raaij (2017) for banks in the Netherlands, and Filipiak (2016) for Indian banks. Using data for the Netherlands, Van der Cruijsen et al. (2019) confirm the positive link between broad-scope and narrow-scope trust for banks, insurance companies and pension funds.

4.5 Policy measures and institutional settings

Various studies find that trust in financial institutions also depends on policy measures and institutional settings. For example, Buriak et al. (2019) show that the relationship between trust in banks and generalized trust is strongest in a well-established institutional environment. Osili and Paulson (2014) find that deposit insurance can mitigate the effect of banking crises on trust, while Prean and Stix (2011) conclude that the extension of deposit insurance coverage in Croatia had a positive impact on the perceived safety of deposits. Knell and Stix (2015) report that knowledge about the maximum amount of money insured under the deposit insurance system increases trust in banks. The increase of the maximum insured amount under the Austrian deposit insurance system might have prevented a further decline of trust. Jansen et al. (2015) reveal that government interventions (government support or nationalization) are the least important from all scenarios which could trigger a loss in trust that they considered.

It is unclear if legislation targeted at the behavior of financial players can contribute to restoring trust. For example, according to Reich (2008) regulations that require financial players to do what they promised and to be honest, combined with strict oversight can help restore trust. Others doubt whether trust can be restored by legislation (De Jager, 2017).

Finally, there is some evidence that trust in financial institutions is related to trust in the prudential supervisor. If consumers are aware that the behavior of financial institutions is supervised and given that institutions' behavior affects trust, trust in the supervisor may enhance trust in the financial sector. Indeed, Van der Cruijsen et al. (2019) find a positive association between trust in the supervisor and trust in the financial sector. However, more research is needed to test the robustness of their finding.

4.6 Other factors

Lastly, there are also other drivers of trust that apply specifically to health insurance companies. Using data on the US, Balkrishnan et al. (2004) find that the ability to choose one's physician improves trust in the health insurer. Surprisingly, the type of physician payment (capitation versus mixed incentive fee-for-service) is unrelated to trust. Goold et al. (2006) show that trust in health insurers correlates positively with trust in doctors, satisfaction with care, and the intention to maintain insurance plans, whereas it correlates negatively with worry about health insurance. The freedom to choose the healthcare insurer matters for trust too (Zheng et al., 2002; Dugan et al., 2005) as well as not having had prior disputes (Zheng et al., 2002). Tranter and Booth (2019) find that broad-scope trust in insurance companies is relatively low for people without a house or contents insurance. In case of health insurers trust is negatively related to mental health (Dugan et al., 2005). Fungáčová and Weill (2018) report that trust in banks is unrelated to self-assessed health.

5. Conclusion and policy implications

A key question is how to regain trust in financial institutions after a crisis or even during other negative idiosyncratic events such as bank failures or pension cuts, and how much room there is for authorities to contribute to this. Before answering this question it is useful to emphasize that trust is important for a proper functioning of individual financial institutions, the economy and for stability of the financial system as a whole. This underscores the importance of financial sector regulators' and supervisors' attention to trust in financial institutions. Our survey illustrates the wealth of academic research into several types of drivers of trust in different jurisdictions and for different time periods. Trust in financial institutions is not a one-dimensional concept and is related to many other factors.

This ample research provides insights for supervisors and policymakers on how to contribute to a stable financial system. At the same time, a reasonable strand of literatures shows that there are also limits to influencing trust since several drivers of trust in financial institutions are well beyond a financial supervisor's reach. Looking at economic factors, for example, there are many business cycle-related drivers that are not within a supervisor's immediate scope of influence, such as inflation or unemployment. However, as shown in the literature, preventing a crisis in general also contributes to stabilizing trust and this is supervisors' main raison d'être. In general, adherence to regulations (like capital and liquidity requirements) aimed at enhancing financial stability and the resilience of the financial sector may enhance trust in financial institutions. Whereas regulators and financial supervisors cannot guarantee that financial crises will not occur, they are able to take measures, such as the introduction and improvement of a deposit guarantee system, which tend to increase narrow-scope as well as broad-scope trust. In addition, they can influence financial institutions' behavior with their business conduct regulations or restrictive measures, such as a cap on bankers' bonuses or regulation and requirements on data security or other forms of privacy protection. A supervisor may also increase financial institutions' awareness of the different drivers of trust. In recent years, more attention has been paid to financial institutions' own responsibilities in maintaining their license to operate, and therefore their own knowledge of the drivers of public trust. As is shown in the literature, it is not only for the common good that financial institutions take responsibility in preserving public trust, it is also in their own interest since trust contributes to the acceptance of their products and to maintaining or increasing their market share.

A strand of literature shows that personal characteristics could also determine levels of trust. Obviously, a supervisor has no influence on a society's sociodemographic characteristics. However, it could conduct more in-depth research into the heterogeneity of trust levels of different segments of the population (e.g. young versus aged, or lower versus higher income group) and tailor specific measures of communication to identified groups with lower trust levels. The same goes for financial literacy and trust. While supervisors cannot increase financial literacy by themselves, they can contribute to it by providing schools and the broader public with educational programmes and explaining prudential policies. More importantly perhaps, supervisors could underscore the importance of financial education in their role as policy advisors. It is a shared interest of regulators, supervisors and financial institutions alike to increase financial literacy and each of them has its own responsibility in empowering people in their understanding of financial products and the sector.

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Appendix 1. Description of trust measures used in Table 1

Financial sector	
Trust in the financial sector	Answer to “In general, do you think most financial institutions (for example banks, insurance companies and pension funds) can be trusted or do you think one cannot be careful enough in dealing with financial institutions?” (1 = can be trusted, 0 = one cannot be careful enough).
Trust in the financial sector: managers’ integrity	Agreement with “Managers of financial institutions are in general sound.” (1 = completely disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = completely agree).
Trust in the financial sector: managers’ competence	Agreement with “Managers of financial institutions are in general knowledgeable.” (1 = completely disagree, 2 = disagree, 3 = neutral, 4 = agree, 5 = completely agree).
Banks	
Broad-scope trust in banks	Answer to “How much trust do you have in banks?” (1 = absolutely no trust, 2 = not so much trust, 3 = pretty much trust, 4 = a lot of trust).
Narrow-scope trust in banks: financial health	Answer to “At the moment, do you trust that the bank(s) at which you have deposits is (are) able to repay these deposits at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely).
Broad-scope trust in banks: financial health	Answer to “In general, do you trust that banks in the Netherlands are able to repay deposits at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely).
Broad-scope trust in banks: bankruptcy	Answer to “During the past year have you ever thought about the possibility that banks in the Netherlands might go bankrupt?” (1=yes, very often, 2= yes, now and then, 3=no, not often, 4=no, never).
Insurance companies	
Broad-scope trust in insurance companies	Answer to “How much trust do you have in insurance companies?” (1 = absolutely no trust, 2 = not so much trust, 3 = pretty much trust, 4 = a lot of trust).
Narrow-scope trust in insurance companies: financial health	Answer to “At the moment, do you trust that the insurance company at which you have contracts is able to pay your insurance money at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely).
Broad-scope trust in insurance companies: financial health	Answer to “In general, do you trust that insurance companies in the Netherlands are able to fulfil their payment obligations to all persons insured at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely).
Broad-scope trust in insurance companies: bankruptcy	Answer to “During the past year have you ever thought about the possibility that insurance companies in the Netherlands might go bankrupt?” (1=yes, very often, 2= yes, now and then, 3=no, not often, 4=no, never).
Pension funds	
Broad-scope trust in pension funds	Answer to “How much trust do you have in pension funds?” (1 = absolutely no trust, 2 = not so much trust, 3 = pretty much trust, 4 = a lot of trust).
Narrow-scope trust in pension funds: financial health	Answer to “Do you trust your pension fund(s) to be able to pay your pension benefit at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely)
Broad-scope trust in pension funds: financial health	Answer to “In general, do you trust pension funds in the Netherlands to fulfil their payment obligations towards retirees at all times?” (1 = no, not at all, 2 = no, predominantly not, 3 = neutral, 4 = yes, predominantly, 5 = yes, completely).

Appendix 2. Overview of empirical studies on the drivers of trust

Study:	Country:	Institutions:	Trust:	Conclusions:
Zheng et al. (2002)	US	Health insurers	Narrow-scope trust	Trust is positively related to trust in physicians, general satisfaction with health care, insurer satisfaction, the intend to switch insurers, having enough choice in selecting health insurer, no prior disputes with health insurer, and not being a member of a managed care plan.
Balkrishnan et al. (2004)	US	Health insurers	Narrow-scope trust	The ability to choose one's physician improves trust. The type of physician payment is unrelated to trust.
Dugan et al. (2005)	US	Health insurers	Narrow-scope trust	Trust is associated with having any and enough choice in choosing the insurer, having had a dispute, and being in managed care. Trust is negatively related to mental health.
Goold et al. (2006)	US	Health insurers	Narrow-scope trust	Insurer trust correlates positively with trust in doctors, satisfaction with care, the intention to keep insurance plans and negatively with worry about health insurance.
Ennew and Sekhon (2007)	UK	Bank, building society, general household insurer, life insurer, investment company, broker/advisor and credit card company	Narrow-scope trust	Trust is relatively high for females, older customers, people with a longer relationship with the financial institution, and people with a greater number of products held.
Van Dalen et al. (2010)	US and The Netherlands	Pension providers (banks/insurance companies)	Broad-scope trust	There is a positive relationship between trust in pension institutions and the perceived adequacy of retirement savings.
Prean and Stix (2011)	Croatia	Banks	Broad-scope trust	An extension of deposit insurance coverage has a positive impact on the perceived safety of deposits. The perceived safety of deposits is relatively high for people who perceive their own financial situation to be good. It is relatively low for people with high inflation expectations.
Stevenson and Wolfers (2011)	US/98 countries	Banks and financial institutions, bankers/financial institutions or banks	Broad-scope trust	Trust is procyclical: it is strongly related to the unemployment rate, especially in developed economies.
Guiso (2012)	US	Banks, bankers, brokers, mutual funds, stock market	Broad-scope trust	The GFC has led to a collapse of trust.
Hansen (2012)	Denmark	Financial companies, pension and mortgage companies	Broad- and narrow-scope trust	Narrow-scope trust positively depends on customers' financial healthiness, broad-scope trust, financial knowledge, and satisfaction.
Lachance and Tang (2012)	US	Financial professionals (also trust in banks and financial institutions)	Broad-scope trust	Trust declines with age and increases with willingness to take investment risk and with financial satisfaction. Financial literacy has an inverse U-shaped relationship with trust.
Carbó-Valverde et al. (2013)	Spain	Banks	Broad- and narrow-scope trust	Trust mainly depends on customers' assessment of bank performance characteristics and attributes.
Phan and Ghantous (2013)	Vietnam	Banks	Narrow-scope trust	Trust depends on corporate based, functional, and personnel-based associations.
Shim et al. (2013)	US	Banks and financial institutions	Broad-scope trust	Trust of young adults depends on self-reported well-being and financial status.
Hansen (2014)	Denmark	Banks	Narrow-scope trust	After the GFC consumers rely more on satisfaction and less on trust when deciding whether they should remain loyal to their bank. Trust positively depends on satisfaction with the bank-customer relationship and financial knowledge. Before the GFC it was also positively related to consumers' financial healthiness and after the GFC to the perceived functioning of the financial market.
Järvinen (2014)	Europe	Banks	Narrow-scope trust	Females have higher trust than men; education hardly matters.
Osili and Paulson (2014)	US	Banks		Crisis experiences can have long-lasting effects on trust. Deposit insurance can mitigate these effects.
Jansen et al. (2015)	The Netherlands	Banks	Narrow-scope trust	Executive compensation, negative media reports, falling stock prices, and opaque product information affect trust in banks.

Kersting et al. (2015)	US	Financial markets and individuals involved	Broad-scope trust	There is a negative association between financial literacy and trust in financial market.
Knell and Stix (2015)	Austria	Banks	Broad-scope trust	Consumers' views of the general economic situation, their own financial situation and the stability of prices and the euro are more important in explaining trust than macroeconomic and sociodemographic variables. Knowledge about the deposit insurance and lack of bank collapses prevent a trust loss.
McNeish (2015)	Canada	Banks and billing firms	Mix	Paper bills and statements can support trust.
Allen et al. (2016)	123 countries	Banks, credit unions and other financial institutions	Broad-scope trust	Their findings suggests that there is a positive relationship between familiarity with banks and trust.
Filipiak (2016)	India	Banks	Narrow-scope trust	Access to banks increases trust. Broad-scope trust[14] also positively affects trust.
Van der Cruijsen et al. (2016)	The Netherlands	Banks	Broad- and narrow-scope trust	Crisis experience has a negative effect on broad- and narrow-scope trust.
Afandi and Habibov (2017)	29 transition economies	Banks and the financial system	Broad-scope trust	Factors positively associated with trust: being young, living in rural areas, a university education, being banked, and trust other people, GDP growth rate and Rule of Law (the quality of institutions). In 2010 foreign bank ownership begins to be detrimental for trust in banks. Factors negatively associated with trust: the extent to which the household was affected by the crisis, the experience of a wage loss, financial crisis (but only temporary).
Kaabachi et al. (2017)	France	Internet-only banks	Broad-scope trust	Trust is driven by familiarity with internet banking, high perceived structural assurance (e.g. security and privacy policies), perceived website quality, relative advantage, and quality of the bank.
Van Esterik-Plasmeijer and van Raaij (2017)	Netherlands	Banks	Broad- and narrow-scope trust	Integrity is key in explaining narrow-scope trust in bank. Other factors driving trust: transparency, customer orientation, competence, broad-scope trust. Narrow-scope trust is important for bank loyalty.
Van Staveren (2017)	The Netherlands	Banks		The dominance of a competitive banking culture is a reason why trust in banks remained low.
Ampudia and Palligkinis (2018)	Italy	Banks	Broad- and narrow-scope trust	Trust in the bank is unrelated to the bank's promotion efforts and the corporate structure. In contrast, trust positively depends on profitability, the degree to which the bank relies on deposits for their funding and negative on the non-performing loans ratio. Households trust less listed banks. Trust is relatively low for risk-averse people, self-employed, and people in the lowest income or wealth quintile. Households who trade securities, make mortgage payments, or pay their utility bills through the bank trust their bank more. Trust in the banking sector negatively depends on financial literacy.
Chang and Hung (2018)	Taiwan	Banks	Narrow-scope trust	Good service recovery and relational selling behavior result in higher trust.
Naumann (2018)	25 EU countries	Pension funds	Narrow-scope trust	A higher dependency ratio, replacement rate, unemployment rate, being a woman, having a negative view on the future job status, and belonging to a low social class are negatively related to consumers' trust in the future of their pensions. Old people, people with a good living standard and people with a left political ideology have relatively a lot of trust.
Van Dalen and Henkens (2018)	The Netherlands	Pension funds, banks and insurance companies	Broad-scope trust	Trust depends on the perceived integrity, competence, stability and benevolence of pension providers. Transparency is not

[14] Measured as the average level of trust of respondents in the several banks they were asked to rate: "Would you trust this financial institution with your money?".

				important. Trust in pension providers is positively related to the level education.
Fungáčová and Weill (2018)	China	Banks	Broad-scope trust	Factors negatively associated with trust: membership in the Communist Party, living in a rural area, being married, a high education. Factors positively associated: age, satisfaction with financial situation, the banking sector size, people who favour inequality as an incentive for individual effort, people who support an expanded government ownership role in the economy. No impact: access to information.
Bravo et al. (2019)	Spain	Banks	Narrow-scope trust	Trust depends positively on online and offline services. The latter matters the most.
Buriak et al. (2019)	60 countries	Banks	Broad-scope trust	There is a positive relationship between generalized trust and trust in banks. The link is strongest if the institutional environment is good.
Chernykh et al. (2019)	Russia	Banks	Narrow-scope trust	Trust in banks is more sensitive to industry-level financial stability indicators than to bank-level risk characteristics.
Fungáčová et al. (2019)	52 countries	Banks	Broad-scope trust	Large cross-country differences. Trust is higher for females than males. It increases with income and decreases with age and education. Television access is associated with higher trust and internet access with lower trust. Religious people and people with pro-market economic views have exhibit high levels of trust. Trust is relatively low in countries that experiences a financial crisis in the years prior to the survey.
Hauff (2019)	Sweden	Banks	Narrow-scope trust	Trust positively depends on the strength of the relationship with bank personnel and on perceived financial stability.
Ibe-enwo et al. (2019)	Cyprus	Banks	Narrow-scope trust	Trust positively depends on green banking practice and green image.
Tranter and Booth (2019)	Australia	Insurance companies, banks and financial institutions	Broad-scope trust	Trust in insurance companies is low compared to trust in banks and financial institutions. Trust in insurance companies and banks and financial institutions is relatively high for females, people who trust other people, people who identify with Liberal and National party and low for and people without a house or contents insurance, Trust in insurance companies is also relatively high for people holding a post-secondary certificate or diploma and people who last attended a government school.
Van der Cruijsen and Jonker (2019)	The Netherlands	Pension funds	Narrow-scope trust	Financial problems of pension funds have a negative impact on trust. Financial literacy has a positive effect on pensioners' trust. The gathering of information has a positive effect on workers' trust.
Van der Cruijsen et al. (2019)	The Netherlands	Banks, insurance companies, and pension funds	Broad- and narrow-scope trust	Financially knowledgeable people are more likely to trust financial institutions and their managers. Trust in the supervisor is positively related to trust in the financial sector.
Nuñez Letamendia and Poher (2020)	Spain	Banks, financial system	Broad- and narrow-scope trust	There is a positive link between financial literacy and trust. The strength of the relationship depends on the type of trust and the way financial literacy is measured. The relationships with gender and age depend on the type of trust. There is a positive effect on trust of having investment experience and of having a financial advisor.

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