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The start of a conversation on the value of New Zealand's social capital

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The Start of a Conversation on the Value of New Zealand's Social Capital

Dr Margreet Frieling

Office of the Chief Economic Adviser
Living Standards Series: Discussion Paper 18/04

February 2018

DISCLAIMER

This paper is one of a series of discussion papers on wellbeing in the Treasury's Living Standards Framework. The papers on [natural capital](#), social capital, [human capital](#), and [wellbeing frameworks](#) are discussion papers. The discussion papers are not the Treasury's position on measuring intergenerational wellbeing and its sustainability in New Zealand. Our intention is to encourage discussion on these topics.

There are marked differences in perspective between the papers that reflect differences in the subject matter as well as differences in the state of knowledge. The Treasury welcomes comments on these papers to help inform our ongoing development of the Living Standards Framework.

In contrast, [The Treasury Approach to the Living Standards Framework](#) is a Treasury Paper, which describes the current work on the Living Standards Framework and our plans for future work.

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Executive Summary

This paper describes a conceptual framework for the key components of social capital, as a first step towards its measurement as part of the Treasury's Living Standards Framework (LSF). It proposes a definition of social capital as the social connections, attitudes and norms that contribute to societal wellbeing by promoting coordination and collaboration between people and groups in society.

Social capital is a well-evidenced predictor of economic performance, democratic functioning, public safety, educational outcomes, labour market outcomes and individual health and wellbeing. Unless government systematically accounts for social capital, social capital risks and opportunities are easily taken for granted or overlooked in policy development.

Governments have a profound impact on social capital. Government policies influence the growth and decline of social capital through their effects on institutional quality, income inequality, poverty, housing mobility and ownership rates, family and whānau wellbeing, the construction of the built environment and educational outcomes.

A shared understanding of what social capital means, why it is important and what the key risks and opportunities are is a fundamental first step towards a coordinated across-government approach for better social capital outcomes. To that end, this paper aims to identify: 1) the core elements of social capital; 2) the policy questions for each of these elements; and 3) the main individual and societal determinants of social capital. Based on this analysis, this paper proposes a set of key indicators for the measurement of social capital in the LSF.

This paper is part of a series of discussion papers that the Treasury will issue this year. At this time, papers are also being released on human and natural capital, measurement of current wellbeing and resilience of future wellbeing. The papers start the conversation and should be seen in that light. Subsequent steps include the development of a set of tools that enable the inclusion of the capitals within the Treasury's broadening accounting approach and that allow policy analysts to evaluate policy proposals against the impacts on all four capitals, including social capital.

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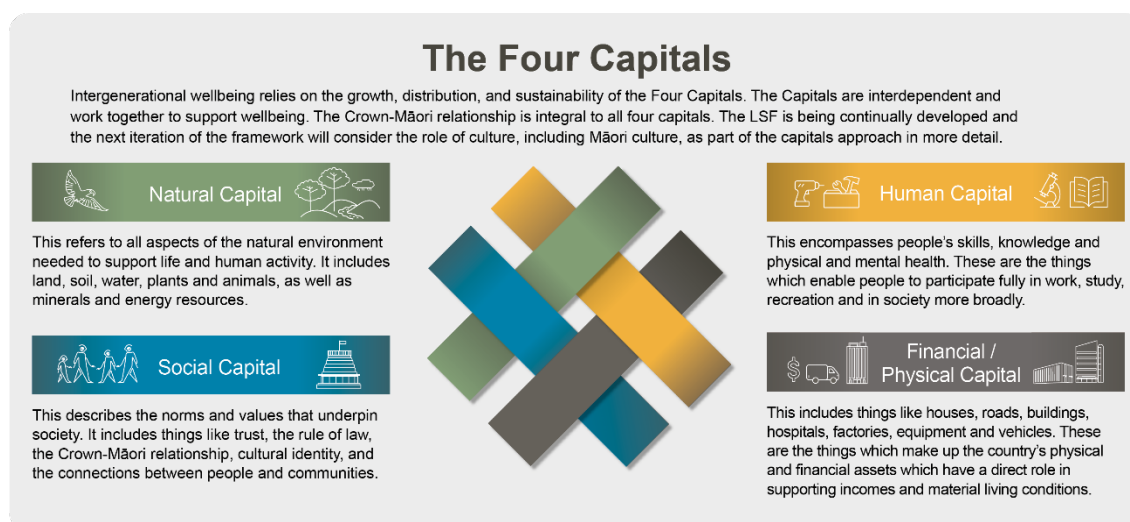
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1 Background

The Treasury Living Standards Framework (LSF) aims to put sustainable, or intergenerational, wellbeing at the core of policy development and evaluation. At the centre of the framework are four capitals (see Figure 1):¹

- financial and physical capital – such as homes, roads, hospitals and financial assets
- human capital – such as health, knowledge and skills
- social capital – as will be discussed in this paper, and
- natural capital – which covers things such as a climate favourable to life, quality of water and air, and biodiversity.

Figure 1 – The Treasury's Four Capitals framework



The four capitals in the LSF help policy-makers to take into account the range of impacts that a policy option may have on the material and non-material factors that affect New Zealanders' wellbeing, now and in the future. In addition, the four capitals are a way to organise indicators of intergenerational wellbeing. Going forward, the Treasury intends to further incorporate the four capitals within policy development and public accounting by assessing for each of the four capitals:

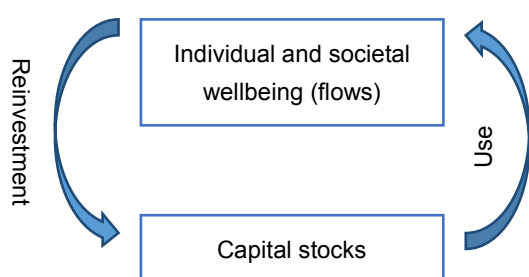
- 1 What are the current stocks?
- 2 What are the trends in how stocks are changing over time?
- 3 What are the risks and opportunities relevant to each capital stock?

¹ A fifth type of capital, cultural capital, can be seen as an integral part of all four capitals above. Culture is about how we socially interact, but also influences how we define knowledge, how we perceive and respond to our health, the way we value, care for and interact with our natural environment and the ways in which we do business. Section 3.3 of this paper addresses the specific relevance of culture to social capital. The overarching question about where cultural capital is best placed within the Treasury Capitals framework (ie, as a separate capital or integrated across the other four capitals), is currently left unanswered and requires further work.

The underlying principle of the capitals framework is that good public policy enhances the capacity of natural, social, human and financial and physical capital to improve wellbeing for New Zealanders (see Figure 2). In the Treasury's view (The Treasury, 2017) this means that, in good policy, the capital stocks:

- are sustained or enhanced, not eroded by current generations at the expense of future generations (sustainability)
- are shared equitably in a way that sustains or enhances the capitals (equity)
- allow for a cohesive society, where people and groups respect others' rights to live the kinds of lives they value (social cohesion)
- are resilient to major systemic risks (risk management), and
- generate material wellbeing (economic growth).

Figure 2 – Capital stocks and wellbeing flows in the Treasury's LSF



About this paper

This paper is a starting point to describe social capital within the context of the LSF. It is often assumed that the meaning and benefits of social capital are self-evident. Yet, without a clear understanding of its meaning and its relationship to wellbeing, social capital outcomes can easily be overlooked or taken for granted in policy-making. Therefore, Section 2 summarises the international conceptual literature on social capital, including: 1) its core and contested elements; 2) the theoretical and empirical relationships between social capital and wellbeing; and 3) commonly distinguished social capital dimensions. Section 3 proposes a Treasury working definition of social capital. Section 4 summarises the empirical findings for individual and societal-level determinants of social capital, as an important step towards identifying risks and opportunities in policy-making. Section 5 proposes key indicators for the measurement of social capital in the LSF. Section 6 concludes with a discussion of the findings and describes next steps.

As a discussion paper, this paper very much welcomes feedback from its readers on what is proposed. In particular, this paper seeks feedback on three main points:

- 1 Firstly, a lot of the evidence presented in this paper is based on international research. Readers are invited to reflect on these findings and test their validity against the New Zealand context. Many elements of social capital work similarly between different countries. Yet some social capital mechanisms may be specific or unique to the New Zealand cultural context.

- 2 Secondly, this paper invites feedback on the key enduring policy questions about social capital in New Zealand. In Section 3, a first attempt is made to summarise these high-level information needs. Feedback is welcomed to further specify these questions. A clear understanding of information needs is essential to ensure that indicators provide the most relevant insights in the New Zealand context. This approach also makes sure that we do not unintentionally limit ourselves to quantitative data when qualitative data may be required. Instead, it lets the policy questions determine the types of data that provide the most useful and relevant insights.
- 3 Thirdly, feedback is invited on the validity of the proposed indicators for the measurement of social capital, as described in Section 5.

2 The Conceptual Literature on Social Capital

2.1 The core ideas

Social capital is an area that has been explored by many disciplines, including economics, sociology and political science. As a result, it has a multitude of definitions. The theoretical underpinnings of the concept of social capital can be traced back to thinkers of the nineteenth century. For example, Alexis de Tocqueville (1863) argued that the strength of American democracy builds on its citizens' propensity to form civil associations to "pursu[e] in common the object of their common desires" (p. 130). These associations, he argued, educate people on collaboration, shape their public awareness and foster solidarity among their members, thereby giving rise to a civil society (p. 132). Later, Emile Durkheim (1893) described participation in groups as the antidote to the social anomie and self-destruction, brought about by the industrial revolution.

Many authors point to L. Judson Hanifan, state supervisor of rural schools in West Virginia, as one of the first proponents of the modern concept of social capital in 1916. While describing the importance of community involvement for successful schools, Hanifan invoked the idea of "social capital" to explain why:

"The individual is helpless socially, if left to himself. If he comes into contact with his neighbor, and they with other neighbors, there will be an accumulation of social capital, which may immediately satisfy his social needs and which may bear a social potentiality sufficient to the substantial improvement of living conditions in the whole community. The community as a whole will benefit by the cooperation of all its parts, while the individual will find in his associations the advantages of the help, the sympathy, and the fellowship of his neighbors."²

Approximately 70 years later, the seminal works of authors such as Bourdieu, Coleman and Putnam have put into place the further foundations for the contemporary use of the concept. Appendix 1 provides an overview of common definitions of social capital within the literature. Most definitions of social capital describe three things: 1) where social capital resides (the sources); 2) what it looks like (its substance); and 3) what it does (its effects). Looking at the range of definitions in Appendix 1, the literature shows a distinction between two broad research streams. The first research stream focuses on the structural positions of individuals

² Quoted from Putnam, 2000, p. 19.

within social networks and how these positions help individuals to “get by” and “get ahead”, by providing access to information and other available resources within those networks. The second research stream focuses on the norms and values in communities and societies that lead to collective benefits by facilitating coordination and collaboration between members. Both research streams will be discussed in more detail below.

Social capital and individual wellbeing: getting by and getting ahead

A large body of research has explored the benefits for individuals that stem from their social connections to others. It is widely recognised that social connections are important for the wellbeing of individuals, as humans have a fundamental desire for frequent, non-aversive interactions within ongoing relationships (Baumeister & Leary, 1995). Social connections imbue individuals with a sense of belonging. In addition, social connections generate and are reinforced by social support, including emotional support (a listening ear), instrumental support (practical help) and informational support (eg, specialist advice or job market information). For example, many studies have demonstrated the importance of social networks in providing access to work and career opportunities (Aguilera, 2002; Burt, 1992; Granovetter, 1973; Mouw, 2003).

Given the importance of social connections in generating a sense of belonging and social support mechanisms, a lack of social attachments has been linked to a variety of ill effects on individuals’ physical and mental health and wellbeing (see Bjornskov, 2003; Uslaner, 2002). As Woolcock (2001, p. 68) summarises, evidence from a wide range of studies suggests that well-connected individuals are more likely to be “hired, housed, healthy and happy” (Woolcock, 2001, p. 68) than those with fewer social connections. Social connections appear to be so powerful that studies show that a lack of social connections and social support predicts increases in mortality from almost every cause of death (see Leavy, 1983; Wallston, Alagna, DeVellis, & DeVellis, 1983, for an overview).

The importance of social connections to individual wellbeing is relevant to public policy. The intrinsic value of higher wellbeing for New Zealanders is reflected in the Treasury’s vision statement. In addition, well-connected people – because of their more beneficial wellbeing outcomes – are less likely to require assistance from the (publicly funded) health and welfare system. Instead, they are better able to contribute to the public system, through civic engagement and tax remits.

Social capital and societal wellbeing

The second research stream in the social capital literature focuses on the norms and values that lead to collective benefits by facilitating coordination and collaboration. For example, the central idea in Putnam’s (1993, 2000) work is that when citizens interact within broader social networks, they establish so-called *generalised* pro-social norms and values; that is, norms and values of goodwill towards all members of society, including people one does not personally know (see Section 3 for a more detailed description of “generalised pro-social norms and values”). In turn, these generalised norms and values are argued to facilitate coordination and collaboration between individuals and to stimulate civic and socially minded behaviour, leading to better government performance, a better functioning economy and safer and more caring communities. In a similar vein, De Tocqueville (1863) argued already in the nineteenth century that individuals’ participation in “civil associations” would create feelings of duty, increase a sense of interdependence with others and produce a habit of participation.

Democratic functioning. The idea that generalised trust and the shared norms that result from social and civic participation lead to beneficial societal wellbeing outcomes has been supported by a broad range of empirical work. In 1993, Putnam examined social capital as an indicator of the performance of local governments across Italian regions. His work showed that the Italian regions in which the public actively participated in civic activities were also the regions in which local governments exhibited higher objective measures of performance. Using cross-country data, La Porta, Lopez-de-Silanes, Schleifer, and Vishny (1997) and Knack and Keefer (1997) obtained findings consistent with Putnam's results (see also Inglehart, 1999). Research by Paxton (2002) suggests a reciprocal relationship between social capital – operationalised as levels of generalised trust and membership of associations – and the level of democracy across more than 30 countries. Accordingly, Section 4 of this paper describes the importance of institutional quality as a determinant of social capital, in addition to the influence of social capital on democratic functioning that is described here.

A common explanation for the effect of social capital on democratic functioning is that social networks, norms and informal care act as complements to, and even partial substitutes for, formal institutions (eg, laws and regulations) and public services. As Garson (2006, online source) writes:

“Implementation of government programs ideally depends less on authority and control than on mobilising policy stakeholders, including policy recipients. The less the social capital, the more difficult such mobilisation becomes. At the extreme, in a society with very low social capital, administrators are much more apt to find reliance on authority and control necessary, with resulting low governmental effectiveness. At the other extreme, in a society with very high social capital, many problems are taken care of by social networking outside of government, and when remaining problems are addressed through governmental intervention, administrators find a rich array of implementation allies.”

Economic performance. Knack and Keefer (1997) further showed that generalised trust and norms of civic cooperation are associated with stronger economic performance (see also Zak & Knack, 2001). Subsequently, other studies have confirmed that countries with higher levels of trust have grown faster economically in recent decades than other comparable countries (Algan & Cahuc, 2010; Whitely, 2000; Zak & Knack, 2001). As Knack and Keefer (1997, p. 1252) explain:

“Trust-sensitive transactions include those in which goods and services are provided in exchange for future payment, employment contracts in which managers rely on employees to accomplish tasks that are difficult to monitor, and investments and savings decisions that rely on assurances by governments or banks that they will not expropriate these assets. Individuals in higher-trust societies spend less to protect themselves from being exploited in economic transactions. Written contracts are less likely to be needed, and they do not have to specify every possible contingency.”

Zak and Knack (2001) show that even in a growing economy, generalised trust is a powerful economic stimulant. In addition to the effects of trust, studies further show that intrafirm and inter-firm networks and relationships improve information flows that spur business innovation and performance (Tsai, 2001; Tsai & Ghoshal, 1998), providing additional input for economic growth.

Educational performance. Putnam (2000) found his composite indicator of social capital³ to also be positively related to an index of educational performance as well as an index of child welfare in the United States⁴ (see also Knack & Keefer, 1997). Knack and Keefer (1997, p. 1253) argue that where trust improves access to credit for the poor, enrolment in secondary education may be higher. Moreover, if social capital leads to better performance of government institutions, publicly provided education should be of a higher quality, leading to better educational outcomes. Lastly, in societies with low generalised trust, hiring decisions are more likely to be influenced by trustworthy personal attributes of applicants, such as blood ties or personal knowledge, and less by educational credentials, than in societies with high levels of generalised trust. This may reduce the returns to acquisition of educational credentials in societies with low generalised trust.

Safety and security. With regard to safety and security, Putnam's composite social capital score was negatively related to homicide rates across the United States (see also Wilkinson, Kawachi, & Kennedy, 1998). Accordingly, criminologists have theorised for some time that higher delinquency and violent crime is associated with low social capital. Social disorganisation theory (see, for example, Sampson & Groves, 1989) has suggested that the ability to control crime depends on levels of "informal social control". Examples of informal social control are the joint monitoring of children playing outside by neighbourhood residents and the willingness to intervene to prevent acts such as truancy and vandalism. In turn, these levels of social control are thought to depend on social connectedness, mutual trust and a sense of shared norms and values among citizens. In line with this theory, Sampson, Raudenbush, and Earls (1997) found that "collective efficacy" – a combination of social connections between residents and their shared belief in their joint capability for action – had a strong inverse relationship with measures of neighbourhood violence, violent victimisation and homicide rates.

In summary, at a societal level, the literature suggests that social capital is associated with better economic and democratic performance, better educational outcomes and a healthier and safer society. Social capital is argued to generate benefits for society in four different ways: 1) by reducing the transaction costs in day-to-day affairs and of doing business; 2) by promoting collaborative and/or socially-minded behaviour; 3) by facilitating the dissemination of knowledge and innovation; and 4) through individual benefits and associated societal spin-offs (Australian Productivity Commission, 2003, p. 23). The first two mechanisms hinge on the development of generalised norms of trust and reciprocity, as emphasised by Putnam (1993, 2000). The third mechanism broadly focuses on the facilitation of knowledge dissemination and innovation by bridging flows of information, a central element in the work of social network theorists like Granovetter (1973) and Burt (1992). The fourth mechanism focuses on the spin-off effects of individuals' social capital on societal wellbeing.

2.2 Dimensions of social capital

Accepting that there is no single form of social capital, many authors (see, for example, Putnam, 2000; Woolcock, 2001) note the importance of thinking about the multiple dimensions of social capital. A multidimensional approach allows us to see how different combinations of types of social capital can produce different outcomes. Moreover, a multidimensional approach incorporates a dynamic component in which optimal

³ Putnam's composite indicator of social capital included measures of community or organisational life, engagement in public affairs, community voluntarism, informal sociability and social trust.

⁴ The educational performance index contained various student test scores and school dropout rates. The child welfare index included aspects such as infant mortality and juvenile death rates, family structure and poverty rates, and data on teen births, high school drop-outs, youth unemployment and crime.

combinations of types of social capital may change over time. There are two dimensional typologies in the literature along which social capital can vary, which are particularly relevant to public policy. The first typology distinguishes between bonding, bridging and linking social capital. The second typology is a distinction between private and public social capital.

Bonding, bridging and linking forms of social capital

Researchers commonly differentiate between bonding, bridging and linking social capital.

Bonding. Bonding social capital is based on strong ties between people who share common background characteristics, such as locality, age, ethnicity and religious or political beliefs. Bonding social capital is often generated in tightly cohesive communities where many people know many other people in the group (called “network closure”). It is associated with personal trust and strong shared norms and values that encourage mutual care between network members. Bonding connections, such as family ties and friendships, often function as a form of informal insurance, which raises members’ sense of obligation to uphold their part of the informal contract while trusting that others will do the same. Despite their fundamental importance to individuals’ wellbeing, the strong shared norms and values that are part of bonding social capital can also foster groupthink and conformity, thereby isolating groups from wider society.

Bridging. Contrary to bonding types of social capital, bridging social capital is cross-cutting and connects people across different social divides. Many researchers have noted how social connections to other networks offer benefits to individuals. For example, Granovetter (1973) has pointed at the importance of bridging connections to other social networks in finding a job. Bridging ties to diverse networks allow individuals to tap into diverse information and knowledge sources. Such informational advantages increase individuals’ ability to develop innovative solutions to existing problems (Burt, 1992, Gargiulo & Benassi, 2000; Hargadon & Sutton, 1997). Bridging social capital also brings many benefits to society. Already in 1909, John Stuart Mill argued how “It is hardly possible to overrate the value (...) of placing human beings in contact with persons dissimilar to themselves, and with modes of thought and action unlike those with which they are familiar. (...) Such communication has always been, and is peculiarly in the present age, one of the primary sources of progress” (Mill, 1909, III, 17.1). Similarly, Putnam’s work has focused on the importance of bridging social capital in generating broader identities, trust and social norms as a fundamental underpinning of well-functioning societies.

Linking. Woolcock (2001) has extended the binary distinction between bridging and bonding social capital, which he both sees as horizontal, to incorporate a third vertical dimension; that is, linking social capital. Linking social capital refers to connections with people in power, including those in politically or financially influential positions. The importance of linking social capital is that it allows people to leverage resources, ideas and information from powerful others. From a public policy perspective it is important to note that this linking form of social capital can work both ways. It is not just about individuals’ ability to benefit from the resources of influential others. The opposite – the ability of influential institutions (eg, government institutions) to link in with and build on individual and community capabilities and capacities – is just as powerful.

Fluidity between bonding, bridging and linking. Bonding, bridging and linking dimensions of social capital are not mutually exclusive. For example, a partner or parent with a high status job can act as both a form of bonding as well as linking social capital. Nonetheless, one of the key messages that can be distilled from Woolcock’s work is that, in addition to bonding social capital, it isn’t just the diversity of one’s social network that counts, but also the extent to which

these diverse others provide access to powerful resources. The distinction between bonding, bridging and linking social capital is fluid in nature, as social contexts and relationships continuously change. For example, many people have described how, after natural disasters such as the Christchurch and Kaikoura earthquakes, new similarities between people come to the foreground (“we’re all in this together”), which subsequently give rise to new group identities and generate new forms of care and support between people who may not have previously identified with each other. Over time, when the bonding event and resulting similarities move to the background, such groups may start to operate in more siloed ways again. In short, classifications of social connections as bonding, bridging or linking will always be context and time specific. While the distinction between bonding, bridging and linking social capital is useful from a theoretical point of view, the fluidity between the terms means that its usefulness is limited from a measurement perspective.

Private and public social capital

A second typology, which is particularly relevant from a public policy perspective, distinguishes between private and public social capital. Some researchers look at social capital as a community attribute or a collective characteristic (see, for example, Coleman, 1990; Putnam, 1993, 2000). From this perspective, social capital represents the overall levels of connections between members of a society and the resulting pro-social norms and behaviours. On the contrary, social network theorists such as Granovetter (1973) and Burt (1992) explicitly define social capital as a personal asset which can be used in the competition between individuals aiming to improve their own position vis-à-vis others (see also Bourdieu, 1986). This represents a conflict theory perspective on social capital. Social capital can thus be seen as both an individual and a collective-level phenomenon. Stolle and Rochon (1998) therefore distinguish between *private* and *public* forms of social capital (see also Paxton, 2002). Public social capital, by definition, carries benefits for all members of society. The benefits of public social capital are non-exclusive. Non-participant third parties, so-called free-riders, still benefit from collaborative networks between others; for example, through lower crime incidence, a more efficient economy and a better functioning democracy. On the contrary, private forms of social capital are only accessible to individuals within the particular group or relationship in which it resides.

As described in Section 2.1, many forms of private social capital have positive spin-off effects on collective wellbeing outcomes. However, private forms of social capital do not always contribute to societal wellbeing. They can be exclusive and result in negative societal wellbeing outcomes if the connections and pro-social norms within the group are not accompanied by broader connections and pro-social norms towards others in society (Portes, 1998). When strong pro-social norms within groups develop at the expense of more generalised identities and sentiments, the danger is that “people may come to exist in small worlds – close and closed communities – as a result of which they do not share values, understandings and commitments with or to the wider society (and its constituent social groups) of which they are a part” (Kearns and Forrest, 2000, p. 1001).

Cross-national research on tolerance in Eastern and Western European countries indeed shows that strengthening associational membership in countries with low levels of generalised trust is likely to create an even more closed and intolerant society (Iglič, 2010). As Iglič argues, in this situation, voluntary associations do not act as “schools of democracy”, but instead reinforce attitudes of intolerance among their members. Similarly, research by Paxton (2002) has shown that within low trusting societies, increases in associational membership had a negative impact on democratic performance. Paxton concluded that: “Only when approximately 50 percent of the population is trusting do increases in associations lead to increases in democracy” (2002, p. 272).

Distributions in social capital

As public social capital is non-exclusive and doesn't deplete with use, distributional issues for social capital are mostly relevant to private social capital outcomes. While private social capital plays an important role in helping individuals to get by and get ahead, one person's advantage from social capital (eg, in finding a job) comes at the opportunity cost of the exclusion of another. For example, Wilson (1996) has noted that a defining feature of being poor tends to be that one is not a member of certain social networks and institutions, ones that could be used to secure good jobs and good quality housing. He posited that social isolation exacerbates the consequences of poverty for the poor by reducing access to education and employment opportunities. Private social capital can therefore be described as a double-edged sword. In contrast with all of its positive outcomes, it can also trigger mechanisms of social exclusion when the lack of certain types of social connections systematically excludes people from opportunities and resources that are normally available to others in society, including access to adequate housing and secure employment. Social exclusion prevents individuals or communities from participating fully in the economic, social and political life of their society.

2.3 Areas of debate

While there is a widely shared consensus that social connections are valuable for individuals and societies, social capital critics (eg, Fine, 2010; Foley & Edwards, 1999; Harriss, 2002) challenge the work on social capital for several reasons (see Haynes, 2009, for an overview):

Critics have been sceptical of the way that social capital can be used to explain almost any social science phenomenon with “a capacity to draw uncritically on any handy analysis” (Haynes, 2009, p. 3). As Woolcock has argued, the concept of social capital has been “adopted indiscriminately, adapted uncritically, and applied imprecisely” (Woolcock, 1998, p. 196). At the very least, critics argue that the different conceptualisations of social capital suggest that there are various forms or dimensions of social capital (Woolcock, 1998). Accordingly, this paper focuses on the key elements and dimensions of social capital that are particularly relevant from a public policy perspective. Moreover, it will describe how different elements of social capital have their own unique determinants and relationships to societal wellbeing.

Some authors have questioned whether social capital is really a “capital” and have criticised the metaphor for being misleading and an unhelpful way of rebranding existing sociological and socio-psychological research. They have argued that social capital is fundamentally different from other forms of capital, as social capital stocks require ongoing use to maintain stocks. For public policy, this is an important point of difference, as it means that we cannot think about “storing” or “saving” social capital value for the future, but rather need to think about maintaining and nurturing it. While the capital metaphor clearly has its limitations, this does not have to be a roadblock. As long as we are clear about the limitations of the metaphor, the concept of social capital provides a useful way of bringing economic, sociological, psychological and political theories together to jointly explain developments in individual and societal wellbeing (see also Woolcock, 2001, p. 73).

Critics have also argued that the work on social capital lacks sufficient theory building – with many researchers failing to explain how the specific mechanisms of trust, reciprocity, interpersonal relationships and networks impact on the features they are investigating. They have been critical of the way that social capital variables have been entered into analytical models and have called for a need to more clearly distinguish between causes, effects, concurrences and correlations. While there is certainly a remaining lack of clarity about

cause and effect relationships, this paper has aimed to clearly describe the theoretical and/or empirical nature of the relationships between social capital and wellbeing.

In terms of its measurement, social capital indicators have been criticised for being too narrow in focus. Researchers have cautioned against “over-networked” conceptualisations that equate social capital with access alone. Adler and Kwon (2002, p. 36) note that social capital is more than the sum of the various kinds of relationships that people engage in. It is therefore important to go beyond single item measurement and to acknowledge the different elements and dimensions of social capital and how they are relevant to public policy. To that end, this paper suggests the key policy questions for each element in the social capital framework, as a starting point for the identification of indicators that can address these enduring policy information needs.

Some reviewers have argued that research into the “loss” of social capital has failed to pay attention to the new ways and forms in which social relationships nowadays express themselves (see, for example, Lin, 1999, pp. 43–48). Urbanisation, globalisation and technological developments have all had profound impacts on how we interact, with whom, when and where. It is therefore important to monitor social capital with an open view and to review conceptual frameworks and indicators at a regular basis to make sure that they continue to be relevant.

Lastly, a common criticism is that social capital research over-emphasises the positive aspects of social relationships. As described in Section 2.2, private social capital can have negative outcomes also, such as in the classic examples of criminal groups or gangs. This paper therefore distinguishes between private and public social capital, and suggests to focus measurement on public social capital, which, by definition, contributes to societal wellbeing.

3 Towards a Treasury Definition and Framework of Social Capital

Building on the conceptual literature and research evidence, how should we define social capital within a New Zealand public policy setting? And which elements of social capital are of primary interest from the LSF perspective? As the capitals in the LSF ultimately aim to provide insight into the production of societal wellbeing, this paper suggests to focus the definition of social capital in the LSF on public social capital; that is, the types of social capital that encourage successful collaboration between citizens towards outcomes that are beneficial for society. While private social capital is key to individuals’ wellbeing, in terms of producing societal wellbeing, private social capital can be both an asset and a liability. This paper therefore suggests to capture the importance of private social capital as part of individuals’ wellbeing function in the Treasury LSF (see Figure 2), and to define social capital as follows:

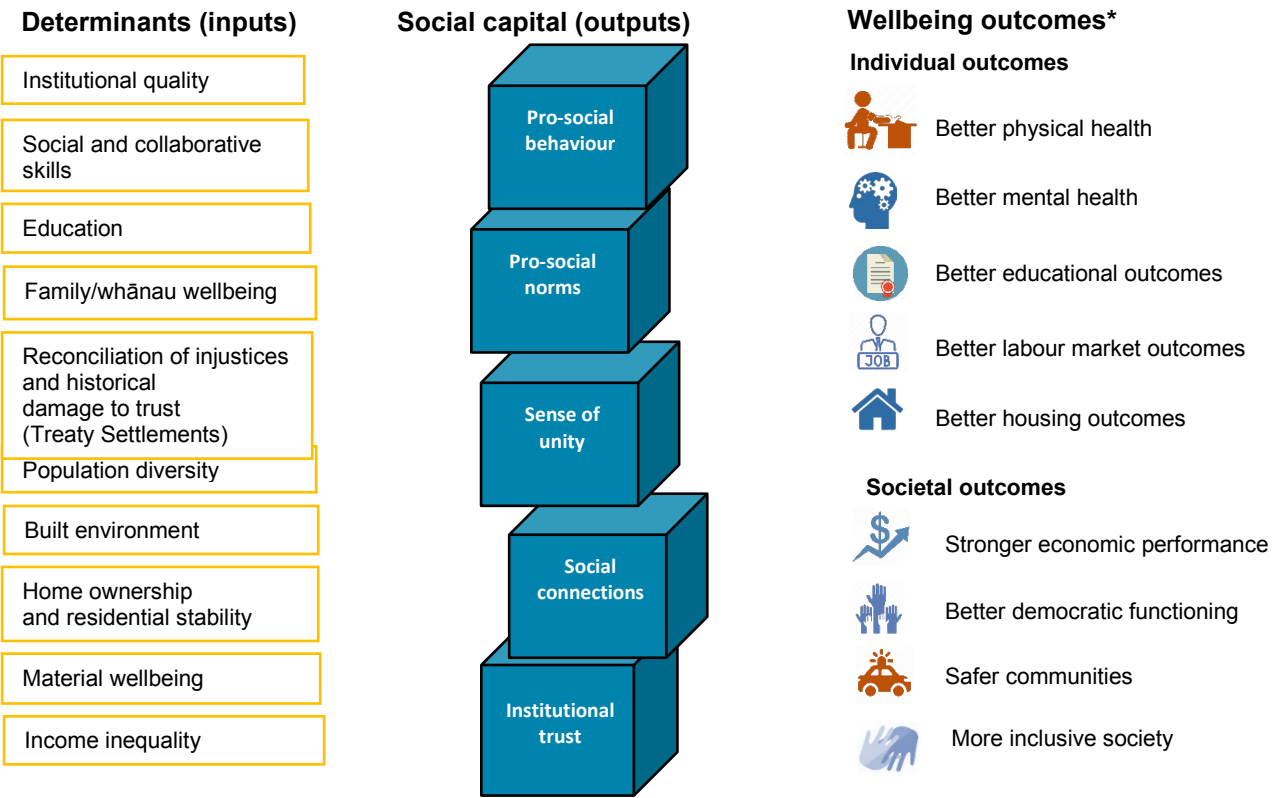
Text box 1: Suggested definition of social capital as part of the Treasury’s Living Standards Framework

Social capital refers to the social connections, attitudes and norms that contribute to societal wellbeing by promoting coordination and collaboration between people and groups in society.

Focusing the definition on public social capital does not imply that private social capital is not relevant for public policy. For example, important policy questions include how to optimally align informal social support and government support within the New Zealand welfare system. Similarly, issues of social exclusion are strongly related to questions about private social capital.

The definition provided in Textbox 1 centres around five building blocks. Figure 3 depicts the five building blocks, as well as the main determinants of these building blocks, which will be described in Section 4. It is important to note that the outcomes that are depicted in Figure 3 are not solely a function of social capital, but are a function of all four capitals. However, for these particular outcomes, social capital has been argued to play an important role.

Figure 3 – Conceptual Model of Social Capital



* The outcomes that are depicted in Figure 3 are not solely a function of social capital, but are a function of all four capitals. For these particular wellbeing outcomes, however, social capital has been argued to play an important role.

The following sections draw on insights from economics, sociology, psychology and political science to describe the five building blocks in Figure 3. For each building block, a start is made to identify key policy questions, as measurement of social capital should always be grounded in a clear understanding of user needs.

3.1 Social connections (whakawhanaungatanga)

Social connections link individuals and groups together through common activities, attributes or interests. Individuals generally belong to more than one network at once. In addition to a form of family or whānau, most people are part of other social networks, such as those based on physical location, hobbies, vocation, parental status, ethnicity or religion. Understanding (shifts in) where social capital is created is important for governments to identify opportunities to work together with communities towards better wellbeing outcomes. Key policy questions with regard to social connections include:

- How can government connect and collaborate with community networks to better achieve desired community and societal outcomes?

3.2 Sense of unity (kotahitanga)

Sense of unity or kotahitanga is about group identification. Individuals can identify with their own personal needs, but they can also identify with the wellbeing and needs of groups. In our daily lives, we constantly shift between these different modes of identification. For example, in our home lives we try to balance our individual needs with the wider needs of our household, whānau and family members. At work, we try to balance our personal objectives with the wider objectives of the organisation we are working for. Psychological research shows that group identification is key in encouraging individuals' motivation for pro-social behaviour and their willingness to act according to group interests. The more strongly an individual identifies with a group, the larger the sacrifices that he or she will be willing to make for the wellbeing of that group. For the wellbeing of society, it is therefore important that people do not only identify with others in their own personal networks or those who are similar to them, but also experience a wider sense of community and belonging to the overall society. Sometimes referred to as a "national identity", this more encompassing sense of unity creates an openness to others in society and encourages collaboration across different social groups.

Important policy questions with regard to sense of unity are:

- What is the strength of New Zealand's national identity?
- How does the strength of New Zealand's national identity relate to other group identities, such as those based on ethnicity, religion, region, etc.?
- How is the strength of New Zealand's national identity changing over time?

3.3 Pro-social norms and values (tikanga)

A third building block of social capital comprises the norms and values that "predispose" individuals towards collaboration with others (Krishna, 2000). These norms and values are particularly important in motivating and enabling diverse groups to work together. Within tightly-knit communities that generate private social capital, people's willingness to act according to group interests is often guided by the "shadow of the future"; that is, the likelihood that they will encounter one another again in the future. In these circumstances, people have reputations at stake that tend to outweigh the short-term gains from momentary betrayals of trust. Norms are embedded in personal relationships, such as the expectation of reciprocal support between family members and friends. Similarly, personalised trust is embedded in the relationship between two people and informed by their knowledge of each other's behaviour.

On the contrary, in sparse and large networks, reputational risks are much smaller and the likelihood of people collaborating and contributing to public interests relies much more heavily on generalised pro-social norms. Generalised norms are the informal rules and conventions that prescribe, prohibit and modify behaviours in various circumstances. They include norms such as law abidingness, generalised reciprocity (helping people without expecting something back) and tolerance of diversity. They can also relate to specific situations, such as norms around demonstrating a good work ethic and paying bills on time. Generalised norms facilitate predictable and beneficial behaviour patterns from individuals in society. As such, they underpin the formation of generalised trust (ie, trust in people who one does not personally know). Generalised trust differs fundamentally from personalised trust by being extended to people on whom the trusting part has no direct information (Bjornskov, 2006; see also Algan & Cahuc, 2010; Uslaner, 2002; Yamagishi & Yamagishi, 1994).

Generalised trust can be seen as a summary indicator of well-functioning generalised norms. For example, Fukuyama (1995, p. 26) describes generalised trust as ‘the expectation that arises within a community of regular, honest and cooperative behaviour, based on commonly shared norms, on the part of other members of the community’.

Key policy questions with regard to generalised pro-social norms are:

- What is the level of generalised trust in society and across groups?
- What is the level of other underpinning pro-social norms in society and across groups, such as norms of generalised reciprocity and tolerance of diversity?
- How are these generalised pro-social norms tracking over time?

Norms, values and culture

Norms and values are inseparable from culture. “Culture embodies the conceptual and normative framework within which the members of a particular society, community, or other social grouping, are socialized, live, enter into relationships, think, communicate, and assign meaning to objects, events, and their very existence” (King & Waldegrave, 2003, p. 13; see also Durie, 1998, 2001). Cultures can be defined along many different lines, including ethnicity, religiosity, socio-economic backgrounds, or differences in geographical location. People often belong to a mix of different sub-cultures. Social norms, the ways in which people connect, and the types of social networks that they form, are strongly anchored into these cultural backgrounds. Different cultures will emphasise different norms and values among their members. Cultures influence our family structures, expectations about the social roles that we play, what we see as the role of government, the amount of favours and support we can legitimately ask from our community and so on.

Being a multicultural society, the New Zealand norms and values system consists of diverse cultures as well as a New Zealand “meta-culture” that enables people to work together across cultural differences. At the meta-cultural level, social capital is about bridging relationships and the norms and values that enable people to work together across cultural differences. This includes norms around equity, tolerance of diversity and generalised trust between different cultural groups. Within cultural groups, social capital tends to have bonding qualities. It is about the strength that we gain from being connected to others who are similar to us. It is about a sense of belonging and feeling understood without having to explain yourself.

For public policy, there is an important challenge around balancing these bonding and bridging types of social capital. Too strong formal or informal requirements for individuals to fit in with mainstream culture can harm cultural diversity. Yet, too little emphasis on our meta-culture can take away our focus from what we have in common and lower trust between people with different cultural backgrounds. An important question for public policy is therefore how to encourage cultural bridges, while safeguarding the strength that people can gain from their diverse cultures.

3.4 Pro-social behaviour (tikanga/manaakitanga)

The fourth building block of social capital focuses on the behavioural side; that is, citizens working together in the light of common interests. Pro-social behaviour, also referred to as civic behaviour and active citizenship, can take many forms, each requiring different levels of sacrifice for the benefit of the common interest. At a basic level, civic behaviour means that individuals comply with formal and informal rules and agreements, even when they are unlikely to be caught for non-compliance or if the threat of punishment is minimal. Such

honest and compliant behaviour has numerous positive consequences, such as a reduction of the amount of resources needed to ensure order and rule of law and to implement government policies and regulations (Letki, 2008). More active forms of pro-social behaviour that generate public social capital are likely to involve greater sacrifices of personal time. Examples include jury service, environmental stewardship and political engagement.

Civic engagement and active citizenship get challenged by several mechanisms. The first challenge is that people are wary cooperators, especially without the guiding mechanisms of reputation and the shadow of the future. Experimental research shows that people are willing to contribute to common interests, but only as long as they perceive that others do so as well (Hibbing & Alford, 2004; see also Levi, 1997). Section 4 of this paper therefore describes the vital role that formal institutions play in encouraging civic behaviour and active citizenship.

A second challenge is that citizens may be unclear or disagree about their responsibilities as citizens. Civic behaviour and active citizenship refer to people fulfilling both their rights and responsibilities as citizens. While rights are mostly written down as part of the law, responsibilities are not as clearly defined and there may be disagreement among citizens as to what their civic responsibilities are. For example, Sherrod, Flanagan, and Younnis (2002, p. 265) note that

“whereas a commitment to the rule of the law is necessary for democratic governance, a well-functioning democracy also depends on citizens who make informed judgements, who at times object to policies and even (as in many movements for social justice) disobey unjust laws. Good behaviour may be one aspect of citizenship, but so is activism, which is frequently not considered good behaviour. The exercise of good judgement, as a component of citizenship, involves assessing when behaviour is needed to maintain the status quo and when it is necessary to take action to change it.”

In addition, people may have a different perspectives on what a fair division of input from citizens and the state looks like. When acts of volunteering and donating are driven by a perceived gap in government services (eg, when volunteering at schools is driven by a perceived lack of funding for education), a key question arises as to what a fair division should look like and how reliance on volunteers and voluntary donations may impact on wider wellbeing outcomes for individuals and society.

A third challenge for encouraging civic behaviour stems from the fact that people require human capital in the form of social capabilities to be able to put their pro-social norms into practice. At a basic level, these skills include the ability to self-regulate one's behaviour and to deal positively with social stressors and conflict. More broadly speaking, presentation skills, organising skills and problem-solving skills are likely to positively influence people's ability to help make a difference through civic engagement.

Key policy questions with regard to pro-social behaviour include:

- How and to what extent are New Zealanders demonstrating civic behaviours, and do levels and expressions of civic behaviour differ between groups in society?
- Which factors enable and inhibit New Zealanders to engage in civic behaviours?
- How is people's engagement in civic behaviours tracking over time?

3.5 Trust in institutions

In Section 4, institutional quality is discussed as one of the key determinants of social capital. Consistent with the literature, this paper treats institutional quality as external to social capital (see definitions, Appendix 1). In the proposed Treasury social capital framework, institutional *quality* is seen as a determinant as well as an outcome of social capital (see Sections 2 and 4). Institutional *trust* is seen as the interface between citizens and their institutions, and is therefore included in the definition of social capital.

In Figure 3, trust in institutions is the building block that underpins the other four social capital elements (see, for example, Berman, 1997; Encarnación, 2006; Hall, 1999; Kumlin & Rothstein, 2005; Levi, 1998; Tarrow, 1996;). Institutions refer to the roles, rules, procedures and regulations that facilitate collective action (Krishna, 2000). Looking at institutional trust, Rothstein and Stolle (2008) make a distinction between two types of institutions: *representational* institutions and *implementation-focused* institutions. Representational institutions, such as political parties, parliaments and cabinets, are partisan by nature. People who support the ideology of the ruling party (or parties) are likely to trust them and citizens who oppose their ideology are likely to report a lack of trust in them. Political diversity, like any form of diversity, can challenge people's sense of unity. However, it is also an inherent part of democratic societies. Rothstein and Stolle (2008) therefore argue that the focus in terms of institutional trust should be at the implementation side of the state machinery; namely the legal and administrative branches of the state responsible for the implementation of public policies. While the basis for trusting (or distrusting) representational institutions is *partisanship*, the reasons for New Zealanders to trust civil servants, judges, the police, public media and social service institutions are for their *impartiality*, as well as their responsiveness and accountability (see Rothstein & Teorell, 2008; Tyler, 2006).

Trust in institutions underpins the development of social capital in several ways. Firstly, implementation-focused institutions include what Rothstein and Stolle (2008) label "order institutions", such as the courts, the police and the other legal institutions of the state that are tasked to detect and punish people who cannot be trusted. By doing so, order institutions help create a stable and safe environment for public interaction and reduce the amount of uncertainty in the interactions between relative strangers (Zak & Knack, 2001). Secondly, perceptions of procedural fairness and efficiency positively influence people's willingness to comply with the outcome of a given process (Lind & Tyler, 1998; Murphy, 2004; Tyler, 1990, 2006). An erosion of trust in legal and administrative institutions erodes the degree of cooperation the individual is willing to give to the state, such as through tax compliance (Orviska & Hudson, 2003; Scholz & Lubell, 1998; Steinmo, 1993), voting (Jones & Hudson, 2000) and other civic behaviours.

Key questions around trust in institutions are:

- Do people trust society's implementation-focused institutions?
- Do these levels of institutional trust differ between groups in society?
- How are these types of institutional trust tracking over time?

The five social capital building blocks in Figure 3 form a dynamic system. The strength of each social capital building block influences the strength of the other building blocks. For example, people who feel alienated from others in society and the institutions that underpin it, can start to show anti-social behaviour that harms or lacks consideration for the wellbeing of others. Trust in institutions underpins the other building blocks of social capital by facilitating the development of pro-social norms and values and collaboration between citizens towards beneficial societal outcomes.

4 Determinants of Social Capital

The development of social capital cannot be understood without gaining insight into its determinants, particularly because government has much more control over these determinants than over social capital itself. It is therefore suggested to include these determinants of social capital in the LSF measurement framework. By influencing the determinants of social capital, governments can create an environment in which beneficial forms of social capital can flourish. Mutually reinforcing policies are essential in doing so, emphasising the importance of effective cross-government coordination. A shared understanding across government of what social capital means and what the key drivers are is an essential first step towards this required coordinated approach.

To inform a coordinated approach, this section summarises the key determinants of social capital. An inherent challenge in doing so is that most studies focus on specific elements of social capital. Different social capital elements have different drivers. As much as possible, the section below outlines the well-established determinants of the social capital elements in the conceptual model described in this paper.

4.1 Determinants of social capital

Institutional quality. One of the most obvious drivers of social capital that governments can influence is the institutional environment in which social capital develops. In Section 2.1, institutional quality was put forward as a societal outcome of social capital, following authors such as Putnam (1993) who focused on the extent to which social capital can explain differences in government performance. Yet, other scholars have looked at social capital as a result of political and institutional arrangements and the extent to which social capital can be generated through public services or institutional reforms. Paxton (2002) proposes that there is a bidirectional relationship between social capital and democratic functioning, which is confirmed by her empirical findings.

Section 3 of this paper has described the importance of trust in institutions as a key building block that underpins the other building blocks of social capital. Clearly, trust in institutions can only be sustained if institutions also show to be trustworthy. Many scholars have therefore focused on the close relationship between social capital and its institutional environment, including the formal rules of the game and the governance of those rules (Williamson, 2000). Empirical findings show that the quality of “order institutions” is a strong indicator for generalised trust (Zak & Knack, 2001). Analysis of cross-country data from over 50 countries confirms the importance of a country’s legal structures and security of property rights for the formation of generalised trust (Berggren & Jordahl, 2006). Fairness and impartiality are essential to play this role effectively. Other key characteristics of institutional quality include responsiveness and efficiency (Tyler, 2006). Justice needs to be done within reasonable timeframes. Long wait times to process court cases lowers trust in the rule of law, which in turn increases uncertainty in interactions between strangers.

From a wider perspective, institutional quality is not only important as a back-up system. Through their effectiveness, efficiency, durability and fairness, institutions also encourage civic morality and nurture the sense of shared responsibility between citizens. Formal institutions, arguably within both the political and non-political side of government, play an important role in demonstrating the overarching social norms of fairness, tolerance of diversity and respectfulness as well as the forms of collaboration and social interaction that it is aiming for in society. In many ways, formal institutions are the public stage of societal interactions. Analysing data from 38 countries, Letki (2006) found that trust in political

institutions and their objective quality are the strongest predictors of civic morality, including obedience to formal rules, and honest and responsible behaviour.

An underpinning formal institution that is unique to the New Zealand context is the Treaty of Waitangi, a political compact between Māori and the British that enabled the establishment of a nation state and government in New Zealand. The Treaty acknowledges the importance of Māori as the tangata whenua and the importance of Māori tikanga and taonga in New Zealand culture and society. Perceptions of how fairly the Treaty and its principles are implemented play a fundamental role in the relationship between Māori and the Crown and the level of trust between the two partners – as well as with other New Zealand communities. Trust eroded by historical Treaty grievances has been restored to some extent by Treaty settlements. Maintaining and building that trust will depend on how well principles of the Treaty are recognised in the future.

The 2013 Transparency International report *New Zealand national integrity system assessment* examined the integrity of New Zealand's three branches of government (legislature, executive and judiciary), key watch-dog agencies, law enforcement, political parties, the media, business and non-governmental organisations (NGOs). The report concluded that the mechanisms that support a high integrity and high trust New Zealand society remain generally robust. However, they noted that these systems were coming under increasing pressure, including increasing numbers of fraud and corruption cases (particularly in the finance sector); trend shifts in the direction of New Zealand's trade, business and other international interactions to countries where corruption is relatively high; and trend falls in voter turnout and political party membership. The report pointed to a structural dominance of the executive branch of government, with some of the checks and balances on the executive that are typical of other countries not being part of New Zealand's institutional landscape. It also expressed concern about the lack of transparency in a number of areas. The report warned that there had been complacency in the face of these increased risks.

Crowding out social capital? While the institutionalist approach largely suggests that institutions are a facilitator for the development of social capital within civil society, others warn about the possibility of the state crowding out social capital. They argue that government programmes that replace informal care relations can weaken the sense of social solidarity and responsibilities (eg, Etzioni, 1995). However, this conclusion is contested in the literature. Rothstein's (2001) longitudinal study in Sweden showed that the country's encompassing welfare regime hasn't eroded, but rather increased the vibrancy of civil society. Rothstein found that levels of generalised trust, engagement in voluntary associations and political participation all increased as the welfare state grew. Van Oorschot and Arts (2005) undertook a cross-national test of the crowding-out hypothesis, using data from 23 European countries from the European Values Survey 1999/2000. At the country level, the authors found a tendency for more developed welfare states to hold greater stocks of social capital, particularly in terms of national levels of trust in institutions and active participation in associational life and politics. At the individual level, their results were mixed and the effect of welfare state type and social spending efforts varied among different aspects of private social capital. Berman (1997) concludes that civil society alone is not capable of improving societal wellbeing. She points at the important role that institutions have to play as mediators, regulators and facilitators, by identifying common interests, guarding them and fostering a sense of community. Weak and unresponsive institutions cause citizens to rely too heavily on informal networks, such as voluntary associations, to achieve their interests, which can reinforce societal fragmentation and weaken societal wellbeing (Berman, 1997, pp. 569–570).

In addition to the institutional context, other determinants of social capital include the following societal and individual characteristics.

Income inequality. A conclusion reached by virtually all studies is that income inequality is one of the most robust cross-country determinants of generalised trust (Knack & Keefer, 1997; Knack & Zak, 2001; Uslaner, 2002; Zak & Knack, 2001). Significant socio-economic inequalities strain bridging social capital and generalised trust. In turn, the 2013 Transparency International report suggests that that international experience shows that such inequalities increase the risk of corruption. Knack and Zak (2001) investigated the ways in which government policies can influence levels of trust. As income inequality so strongly affects trust, they conclude that “[e]ven if the cost to redistribute one dollar is high, e.g., it may cost administratively up to two dollars to transfer a single dollar, our analysis shows that this policy is an efficient way to raise trust” (p. 14). The efficacy of raising trust with redistributive transfers offers part of the explanation for the high degree of trust in Scandinavian countries.

Material living standards. Material living standards are seen to influence both private and public forms of social capital. People with lower material wellbeing tend to have poorer access to bridging types of social capital that can assist with finding work, etc. and are less likely to be politically or civically engaged. In terms of public social capital, higher material living standards tend to coincide with higher levels of generalised trust from the individual (Alesina & La Ferrara, 2000; Helliwell & Putnam, 1999; Knack & Keefer, 1997). Uslaner (2003) has suggested that trust could be part of a positive outlook generated by high or growing incomes. Material living standards have also been shown to influence civic behaviours, such as voting and volunteering (see Wilson & Musick, 1997, for an overview). Findings from the New Zealand General Social Survey (NZGSS) similarly showed that people who said that they did not have enough money to meet every-day needs were less likely to vote in the 2011 and 2014 general elections (with 28% saying they did not vote), compared to those who indicated that they had more than enough money to meet every-day needs (of whom less than 12% indicated that they did not vote).⁵

Education. Education is another powerful predictor of virtually every type of civic and social engagement (see, for example, Helliwell & Putnam, 2007; Knack & Zak, 2001; Campbell, 2006).⁶ Studies on the introduction of compulsory education laws in the United Kingdom and the United States have confirmed the causal relationship between education and increased civic and social engagement, particularly voter turnout, political tolerance and political awareness (Dee, 2004; Milligan, Moretti, & Oreopoulos, 2003). People with higher education levels are more likely to be members of associations, to indicate generalised trust in others (Helliwell & Putnam, 1999; Knack & Keefer, 1997) and to participate in voluntary work (Wilson, 2000). At a societal level, higher education levels are also associated with better institutional quality (Potrafke, 2012).

Several explanations have been offered for how education might influence social capital. Firstly, education can reduce inequality in society, which positively influences social capital (Knack & Zak, 2001). Secondly, education makes individuals better informed and better at interpreting information (Knack & Zak, 2001). These abilities are an important predictor of institutional quality as they enhance overall employee competence, which is beneficial for

⁵ At the point of writing it was unclear whether this analysis of NZGSS data controlled for educational qualifications.

⁶ Authors have also argued for the reverse causal direction, as social capital might also lead to better educational outcomes by allowing students to gain access to the help of family and fellow students (Coleman, 1990; la Porta et al., 1997; Putnam, 2000).

creating well-run government institutions (see Côté & Miners, 2006). Better-informed and educated citizens are also better able to hold formal institutions to account. A third argument for how education generates social capital is that education strengthens generalised trust and civic norms. For example, the New Zealand curriculum aims to encourage students to value, among other things, diversity, equity, community and participation for the common good, ecological sustainability and integrity, which involves being honest, responsible and accountable and acting ethically (Ministry of Education, 2007, p.10). This ties in with the importance of the social and civic skills that enable or limit individuals' ability to put their pro-social norms into action through pro-social behaviour, as discussed in Section 3.4. Family and education environments play a crucial role in the development of these social competencies, which include the ability to self-regulate behaviour and positively deal with social stressors and conflict.

A key question in the academic literature is whether (holding constant their own education) people are more likely or less likely to demonstrate civic values and behaviours when those around them become more educated. Higher average education levels may help to create a climate of trust that is self-reinforcing. Moreover, it is likely that for some types of networks the opportunities for beneficial involvement by individuals increase with the extent of involvement by others. For example, political parties may be more likely to thrive in areas where there are other members with educated interests in the same issues. While studies have had mixed results, findings by Helliwell and Putnam (2007) show that rising aggregate levels of education tend to be accompanied by higher levels of political and social engagement.

Population diversity. Across the world, the ability of diverse communities to live with one another is a dominant theme of societal concern (Dasgupta & Serageldin, 2000). Population diversity has the potential to generate socio-economic benefits, such as productivity growth due to knowledge spill-overs, trade facilitation through better cultural literacy, better informed collective decision-making and a greater variety of goods and services. Yet, diversity can also challenge a society's overall sense of community, generalised trust and social connectedness. Empirical evidence, mostly from the United States, suggests that communities with high levels of ethnic, cultural as well as political diversity tend to have lower levels of interpersonal trust and formal and informal networks (Alesina & Ferrara, 2000, 2002; Costa & Kahn, 2003; Knack & Keefer, 1997; Rice & Feldman, 1997; Zak & Knack, 2001). This trend seems to hold especially strong for the United States. Evidence from Europe and the United Kingdom is more mixed and points at income inequality and community deprivation as stronger determinants. For example, many studies have concluded that there is no strong evidence for an eroding effect of diversity on social capital once the association between diversity and economic deprivation is taken into account (see, for example, Gesthuizen, Van der Meer, & Scheepers, 2009; Laurence, 2011; Letki, 2008; Sturgis & Smith, 2010).

Casual contact may play an important role in moderating the relationship between diversity and cohesion. For example, based on United States and Canadian data, Stolle, Soroka, and Johnston (2008) found a negative relationship between diversity and generalised trust. However, they also found that people in heterogeneous neighbourhoods who regularly talked with their neighbours were less susceptible to the negative effect of community heterogeneity. In addition, cross-national studies suggest that the relationship between diversity and cohesion at the country level may be moderated by good governance and economic development. Delhey and Newton (2005) report that the relationship between ethnic fractionalisation and generalised trust is significantly weakened in the presence of good governance and national wealth.

Home ownership, residential instability and the built environment. Studies have shown a positive effect of home ownership on a rich variety of social capital and citizenship variables (eg, DiPasquale & Glaeser, 1999; Glaeser, 2001). Using New Zealand data and controlling for factors such as income and educational attainment, Roskruege, Grimes, McCann, and Poot (2013) found that homeowners report significantly higher levels of trust in others, participate more in local activities and have a more positive sense of their local community. Residential instability is argued to disrupt community social networks. As integration of newcomers into the social fabric of local communities takes time, residential instability can form a barrier to the development of local social networks and associational ties (Kasarda & Janowitz, 1974; Kornhauser, 1978; McCulloch, 2003). At the same time, Völker, Mollenhorst, and Schutjes (2012) show that low and decreasing neighbourhood social capital also increases moving intentions and actual moving behaviour. Home ownership and residential mobility are thus linked, as home ownership creates barriers to mobility and lower levels of mobility are likely to create incentives for people to invest in social capital (McCulloch, 2003).

The wider built environment also influences the extent to which and how we connect. New Urbanism is an international urban design movement that puts natural and social capital at its centre. The approach is strongly influenced by urban design practices that were prominent until the rise of the automobile society. It builds neighbourhoods around the needs of pedestrians, recognising that car societies are not conducive to social mingling. It encourages diversity of neighbourhood residents by combining diverse housing types and sizes. By incorporating mixed use zoning, New Urbanism deliberately mixes residential areas with small-scale market spaces, small businesses and recreational opportunities that encourage people to get outside, walk more in their neighbourhood and create spaces for people to interact. Back-load garages mean that there are no curb cuts in side-walks, which creates safer places for children to play outside. Identifiable boundaries, such as ring-roads around suburbs with inner road structures ending in cul-de-sacs, encourage social capital formation by minimising through traffic and making it easier for neighbourhood residents to recognise who is from their neighbourhood.

History and prior patterns of cooperation and trust. In addition to current circumstances, trust is also to a large extent influenced by past experiences. People are more likely to be trusting when they feel that they have previously been treated fairly by their fellow citizens. This argument applies both at an individual level and a group level. As Alesina and La Ferrara (2002) describe: “If an individual has been hurt in past interactions with others, he or she may trust less. Also if a group has been discriminated against, de jure or de facto, members of that group will not expect to be treated fairly in the future and will therefore trust less” (pp. 209–210). Their findings based on US General Social Survey data from 1974 to 1994 confirm that belonging to a group that historically felt discriminated against is negatively related to trust in others.

Child development and family wellbeing. Following on from the above, people’s first experiences with others, generally with their family or whānau, are fundamental for the development of their general sense of the trustworthiness of others and their pro-social behaviour later in life (see Kosse, Deckers, Schildberg-Hörish, & Falk, 2017). Attachment theory describes how early patterns of social attachment shape individuals’ expectations, attitudes and behaviours in later relationships. Many authors have suggested that the difference between particularised and generalised trust is one of degree rather than kind (Delhey & Newton, 2005). Putnam (1995) refers to this as ‘the transitivity of trust’, the idea being that when one repeatedly trusts people one has some knowledge about, one may develop a trustworthy outlook on other people as a matter of habit. This is not to say that a

habitual trusters indiscriminately trusts everyone in every situation in a gullible fashion. Rather, it means that one acts on the presumption that others are trustworthy unless there are distinct signs to the contrary (Berggren & Jordahl, 2006; see also Brehm & Rahn, 1997; Putnam, 1993; Uslaner, 2002). Experiences of mistreatment in past interactions, including family violence and dysfunctional family relationships, are thus likely to lower generalised trust.

Work-life balance. Encouraging civic behaviour may be challenged by the potential of role-overload (Markham & Bonjean, 1996). Time constraints seem to affect civic behaviour among the employed. For example, part-time workers tend to volunteer more than full-time workers (Wilson, 2000). However, some argue that, rather than hours worked, individuals' control over those hours might be more important. United States data suggest that, among workers, those who are self-employed and people with flexible work schedules are more likely to volunteer (Freeman, 1997, p. 156; Thompson, 1993). The lowest rate of volunteering is generally found among those who are not in the labour force. Of course, in this context, health limitations and other demands on free time need to be considered, including other unpaid duties such as care and domestic responsibilities.

4.2 The wider international context

In addition to the societal and individual determinants discussed above, there are wider global movements that influence social capital formation both nationally and internationally, that are important to mention.

Globalisation. Globalisation, or international connectedness (The Treasury, 2017), has drastically increased the international flows of trade, capital, people and ideas, which brings benefits to New Zealand as a small open economy, as well as challenges such as building cohesive relationships between diverse cultures. It raises questions about what children and adults should be learning to effectively fulfil their roles as global citizens in an interconnected world that is facing shared issues of sustainability (see, for example, OECD, 2018).

Technological developments. In *Bowling alone*, Putnam (1995) pointed at the privatising effect of television, which he saw undercutting social capital in society. In general, new information technology is seen as having both positive and negative effects on social capital formation. High levels of social capital, such as pre-existing strong non-electronic networks often form the basis of the establishment of electronic-based networks (Fukuyama, 1995). Moreover, new information technology creates networking infrastructure which encourages connections and sharing between people (Calabrese & Borchert, 1996). Information technology, however, can also have an anonymising, individualising effect (sometimes referred to as “being alone together”) which relaxes pro-social norms and can erode social capital (Kiesler, Siegel, & McGuire, 1991; Loch & Conger, 1996).

The role of the media. Related to the technical developments described above, the role and form of the media has changed drastically over the past three decades. The rise of social media can cause people to live in a self-reinforcing media bubble or “echo chamber”, in which they tend to be exposed less to views that are dissimilar to their own. In online echo chambers official sources often go unquestioned and different or competing views are underrepresented, which creates barriers to critical discourse. Personalisation algorithms in common online search engines and social media websites also cater specific information to individuals' online newsfeeds. The fast pace at which social media respond to media releases poses additional challenges for official government communication and trust in institutions.

5 Measuring Social Capital

The aim of defining the core social capital elements and determinants is to help incorporate social capital into the Treasury's broader accounting approach. In order to do so, several measurement challenges for social capital need to be addressed.

5.1 Measurement challenges

Unit of measurement. Two things need to be noted about social capital's unit of measurement. Firstly, while social capital is a property of communities, it originates in the behaviour and attitudes of individual community members. As Brehm and Rahn (1997, pp. 1016–1017) argue, “‘communities’ do not join the PTA or enlist in farming organizations, parents and farmers do”. Accordingly, the social capital indicators that are proposed below focus on the individual behaviours, attitudes and norms that, at the aggregate level, constitute social capital. Secondly, while a helicopter view of social capital (eg, high-level indicators and their time trends) is valuable for overall monitoring, these data can be of limited value when trying to work with social capital stocks as part of targeted policy interventions. For this latter purpose, more in-depth measures of social capital for target populations or areas may be required. Qualitative research methods can offer important advantages to provide more in-depth insights into how smaller-scale communities work.

Comparability of measurement units. Comparability of measurement units (ie, all indicators being measured on the same or a comparable scale) is one of the key characteristics of the system of GDP accounting. This ability for comparison of capital stocks has since been extended to natural and human capital by monetising the value of these capitals. While it may be possible to put a dollar value on (types of) social capital to aid comparison with other capitals, it is questionable whether this approach would be necessary or appropriate to provide the required policy insights.

Focus of measurement. Only knowing about social capital stocks is likely to provide too little information to design meaningful government interventions. Government doesn't have direct control over most of the building blocks of social capital (see Sections 3.1 to 3.5). Yet, government does have considerable influence on the determinants of social capital, such as the institutional environment in which it develops and societal characteristics such as income inequality and housing affordability. To provide useful insights for policy purposes, the measurement of both social capital stocks and its key determinants is therefore important.

Ability to measure social change. The ability to measure social change is complicated by three main factors. Firstly, commonly used ordinal measurement scales limit the amount of change that indicators of social capital can show over time. Secondly, attitudinal data such as trust in others and tolerance of diversity can be prone to measurement bias over time when changing expectations influence self-reported data. Thirdly, the ways in which social capital itself is expressed can change significantly over time. For example, the rise of digital communication has considerably changed the ways in which we connect to others.

Other measurement challenges. Two other measurement challenges require further consideration, namely: What are the accounting implications of the fact that: 1) public social capital has no ownership and 2) the fact that social capital doesn't decline with use?

5.2 An indicator-based approach

To date, the most common approach to measuring social capital is through indicators. Table 1 proposes key social capital indicators for the Treasury's LSF, based on the following considerations.

Firstly, the selected indicators should cover the policy questions they are supposed to inform. A first attempt to identify these policy questions has been made in Sections 3.1 to 3.5. Secondly, as social capital is a multi-dimensional concept, coverage of its relevant dimensions is important. Section 2.3 already discussed how a single-item measurement approach based on, for example, membership rates or generalised trust, offers too limited insights into social capital and the way in which it changes over time. At the same time, having too many indicators can limit users' ability to identify clear trends and to understand distributional issues. Therefore, Table 1 has aimed to include the smallest possible number of indicators that still cover the multi-dimensional nature of the concept. Thirdly, the OECD *Well-being of nations* (OECD, 2001) report argues for measures of social capital that are balanced between attitudinal or subjective elements on the one hand (eg, self-reported levels of trust) and behavioural aspects on the other. Lastly, from a practical point of view, the selected indicators need to be able to be populated with high-quality data and, where relevant, allow for international comparisons.

Based on these considerations, the following indicators are suggested to measure social capital as part of the Treasury's LSF:

Table 1 – Overview of suggested indicators for social capital as part of the Treasury's LSF

Element	Indicator	Related policy questions (see Sections 3.1–3.5)
Pro-social behaviour	<ul style="list-style-type: none"> Civic engagement (behavioural) 	<ul style="list-style-type: none"> How and to what extent are New Zealanders demonstrating civic behaviours? Do levels and expressions of civic behaviour differ between groups in society? How is people's engagement in civic behaviours tracking over time?
Pro-social norms	<ul style="list-style-type: none"> Generalised trust (attitudinal) 	<ul style="list-style-type: none"> What is the level of generalised trust in society and across groups? How is the level of generalised trust tracking over time?
Feelings of unity	<ul style="list-style-type: none"> Strength of national identity (attitudinal) 	<ul style="list-style-type: none"> What is the strength of New Zealand's national identity in relation to other group identities such as those based on ethnicity, religion, region, etc.? How is the strength of New Zealand's national identity changing over time?
Institutional trust	<ul style="list-style-type: none"> Trust in institutions (attitudinal) Additional behavioural measures could include: <ul style="list-style-type: none"> tax compliance, and proportion of crimes reported to the police 	<ul style="list-style-type: none"> Do people trust society's implementation-focused institutions? Do levels of institutional trust differ between groups in society? How are these types of institutional trust tracking over time?

The suggested indicators in Table 1 cover the majority of the identified policy questions in Sections 3.1 to 3.5 (see Column 3). They also cover the key building blocks of social capital, with the exception of “Social connections”. The rationale behind this is that it is very difficult to draw conclusions about public social capital based on the measurement of social connections. Unless we know the activities, purposes and values that connect the members of a group, it is impossible to know in advance whether this group adds to or detracts from the sum of public social capital.

Questions about social networks become more relevant when trying to work with social capital stocks as part of targeted policy interventions. For this latter purpose, more in-depth mapping and understanding of smaller community networks and the ways in which they operate can be valuable. For example, understanding the value and priority that Pacific people place on meeting extended family responsibilities and obligations and the financial implications of these on families’ collective income is important in order to design policies that can support and improve the wellbeing of these community members. Similarly, understanding who different people are most likely to draw on for support is important to help align formal and informal support systems.

In terms of the remaining policy questions from Sections 3.1 to 3.5, some are more suited to a qualitative research approach, including the following questions:

- How can government connect and collaborate with community networks to better achieve desired community and societal outcomes? (Section 3.1)
- Which factors enable and inhibit New Zealanders to engage in civic behaviours? (Section 3.4)

Other questions are of interest, but corresponding indicators have been excluded in order to minimise the number of social capital indicators. These are:

- What is the level of other underpinning pro-social norms in society and across groups, such as norms of generalised reciprocity and tolerance of diversity? (Section 3.3)
- How are these generalised pro-social norms tracking over time? (Section 3.3)

While other pro-social norms are of interest, generalised trust can be seen as an overarching indicator that measures the well-functioning of these pro-social norms.

5.3 Data availability

The availability of robust indicator data on social capital has considerably increased since 2014, when Statistics New Zealand incorporated rotating supplements into its New Zealand General Social Survey (NZGSS), which interviews over 8,000 people every two years. The rotating modules are approximately 25 minutes in length and thereby allow for more in-depth data collection on these topics of high policy interest. The Civic and Cultural Engagement module (first run in 2016) is particularly relevant to the suggested social capital indicators above. Statistics New Zealand has designed these modules to be repeated at regular intervals over time; however, the rotation schedule is still to be confirmed.

The following social capital indicators are captured in the NZGSS on a two-yearly basis:

- Generalised trust – measured on an 11-point scale.
- Institutional trust – trust in the police, the education system, the media, the courts and the health system, all measured on 11-point scales.

Data on the other indicators are currently collected as part of the rotating supplement and are therefore less frequently updated:

- Strength of national identity – measured on an 11-point scale.
- Civic engagement – range of measures included in the Civic and Cultural Engagement module.

As people can demonstrate civic behaviour in a wide range of different ways, it is suggested to develop a summary measure of civic engagement based on a range of different civic activities. In developing this measure, it is worth considering whether data on non-engagement may be more insightful than data on the many different possible forms of engagement.

In terms of measuring institutional trust, behavioural data on tax compliance and the proportion of crimes reported to the police may be sourced from administrative data.

6 Conclusion and Discussion

This paper is a first step to describe a conceptual framework for social capital as part of the Treasury's LSF. Further work is required to move from this conceptual framework to a practical set of tools for policy analysts to more clearly incorporate the four capitals into their work. To inform the development of this toolkit, this paper has provided an overview of the key building blocks of social capital as well as their determinants. In addition, it has suggested a set of key indicators for the measurement of social capital.

The current framework has several limitations:

- There remains a considerable amount of uncertainty about cause and effect relationships in the social capital literature. This paper has included findings from longitudinal research designs and natural experiments to help clarify causal directions where possible. However, social capital and societal wellbeing consist of a complex system of interconnected drivers, characteristics and outcomes which can only be disentangled to a certain extent.
- Secondly, this paper has drawn on the international literature to clarify the concept of social capital. A level of caution and an openness to potential local differences is required when applying these international research findings to a New Zealand context.

Feedback on all aspects of this paper is very much welcomed to help further develop the Treasury's conceptual framework for social capital and its measurement as part of the LSF.

Appendix 1

	The sources: Where does it reside?	The substance: What does it look like?	The effects: What does it do?	Definition
Historical definition				
Hanifan (1916)	Social relationships between individuals and families who make up social units	Goodwill, fellowship, sympathy, social intercourse	Helps neighbours work together to improve schools	“[T]hose tangible assets [that] count for most in the daily lives of people: namely goodwill, fellowship, sympathy, and social intercourse among the individuals and families who make up a social unit.” (Hanifan, 1916, p. 130).
Academia				
Functional definitions				
James Coleman (1990)	Some form of social structure	[Different entities, defined by their function]	Facilitate certain actions of actors within the structure	“Social capital is defined by its function. It is not a single entity, but a variety of different entities having two characteristics in common: They all consist of some aspect of social structure, and they facilitate certain actions of individuals who are within the structure” (Coleman, 1990, p. 302).
Civic culture: Norms, values and attitudes, emphasis on societal benefits				
Robert Putnam (1995)	Social networks	Moral obligations, norms and values (especially trust)	Facilitates coordination and cooperation for mutual benefit	“[F]eatures of social organization such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit” (Putnam, 1995, p. 67)
Fukuyama (1995)	Groups	Informal values or norms	Enables cooperation among people for common purposes	“[T]he ability of people to work together for common purposes in groups and organizations” (Fukuyama, 1995, p. 10).
Brehm & Rahn (1997)	Relationships between citizens	Cooperative norms	Facilitates resolution of collective action problems	“[T]he web of cooperative relationships between citizens that facilitate resolution of collective action problems” (Brehm & Rahn, 1997, p. 999).
Inglehart (1997)	Networks of voluntary association	Trust and tolerance		“[A] culture of trust and tolerance, in which extensive networks of voluntary associations emerge” (Inglehart, 1997, p. 188).
Woolcock (1998)	Social networks	Information, trust and norms of reciprocity		“[T]he information, trust, and norms of reciprocity inhering in one’s social networks” (Woolcock, 1998, p. 153).

	The sources: Where does it reside?	The substance: What does it look like?	The effects: What does it do?	Definition
Social structures and network positions, emphasis on individual benefits: It's not what, but who you know, that matters				
Ronald Burt (1992)	Friends, colleagues and more general contacts		Create opportunities to use financial and human capital	"[F]riends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital" (Burt, 1992, p. 9).
Nahapiet & Ghoshal (1998)	Network of relationships	Actual and potential resources		"[T]he sum of the actual and potential resources embedded within, available through, and derived from the network of relationships possessed by an individual or social unit. Social capital thus comprises both the network and the assets that may be mobilized through that network" (Nahapiet & Ghoshal, 1998, p. 243).
Alejandro Portes (1998)	Social networks/social structures		Create benefits for members	"[T]he ability of actors to secure benefits by virtue of membership in social networks or other social structures" (Portes, 1998, p. 6).
Pierre Bourdieu (1986)	Networks of relationships	Actual and potential resources to which one has access through mutual acquaintance and recognition	Influences people's ability to advance their interests (social power struggles)	"[T]he aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition" (Bourdieu, 1986, p. 248). "[M]ade up of social obligations ('connections'), which is convertible, in certain conditions, into economic capital and may be institutionalized in the form of a title of nobility" (Bourdieu, 1986, p. 243).
International agencies				
OECD (2001)	Social networks	Shared norms, values and understandings	Facilitates co- operation within or among groups	"[N]etworks together with shared norms, values and understandings that facilitate cooperation within or among groups" (OECD, 2001, p 41).
World Bank (1998)	Institutions, personal relationships	Attitudes, shared values and rules for social conduct, trust, common sense of civic responsibility	Governs interactions among people	"The social capital of a society includes the institutions, the relationships, the attitudes and values that govern interactions among people and contribute to economic and social development. (...) It includes the shared values and rules for social conduct expressed in personal relationships, trust, and a common sense of 'civic' responsibility that makes society more than just a collection of individuals" (World Bank, 1998, p. 1).

	The sources: Where does it reside?	The substance: What does it look like?	The effects: What does it do?	Definition
IMF (2000, 2016)	Relationships between two or more individuals	Instantiated informal norms, trust	Promotes cooperation	“Social capital is an instantiated informal norm that promotes cooperation between two or more individuals” (IMF, 2000, p. 3).
Australian Productivity Commission (2003)	Social networks	Social norms and trust	Facilitates cooperation within or between groups	Social capital “relates to the social norms, networks and trust that facilitates cooperation within or between groups” (Australian Productivity Commission, 2003, VIII).
European Commission (2005)		Social trust, norms and networks	Helps to solve common problems	“[T]hose stocks of social trust, norms and networks that people can draw upon to solve common problems” (European Commission, 2005, p. 3).
Statistical agencies				
Stats NZ (2012)	Interactions between individuals and groups in society	Resources such as trust, mutual supportiveness and shared understandings		“Social capital refers to resources such as trust, mutual supportiveness and shared understandings formed when individuals and groups interact in society” (Stats NZ, 2012, p. 3).
Australian Bureau of Statistics (2004)	Interactions between individuals and groups	Mutual support, reciprocity and trust	Contributes to community strength	“Social capital relates to the resources available within communities in networks of mutual support, reciprocity and trust. It is a contributor to community strength. Social capital can be accumulated when people interact with each other in families, workplaces, neighbourhoods, local associations, interest groups, government and a range of informal and formal meeting places” (ABS, 2004, p. 5).
Office for National Statistics UK (2017)	Connections between people	Collective attitudes	Results in well-functioning and close-knit society	“Social capital represents the connections and collective attitudes between people that result in a well-functioning and close-knit society” (ONS, 2017, p. 3).

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