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WHAT DOES SOCIAL CAPITAL ADD TO INDIVIDUAL WELFARE?

AN EMPIRICAL ANALYSIS OF RUSSIA

By Richard Rose

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FOREWORD

There is growing empirical evidence that social capital contributes significantly to sustainable development. Sustainability is to leave future generations as many, or more, opportunities as we ourselves have had. Growing opportunity requires an expanding stock of capital. The traditional composition of natural capital, physical or produced capital, and human capital needs to be broadened to include social capital. Social capital refers to the internal social and cultural coherence of society, the norms and values that govern interactions among people and the institutions in which they are embedded. Social capital is the glue that holds societies together and without which there can be no economic growth or human well-being. Without social capital, society at large will collapse, and today's world presents some very sad examples of this.

The challenge of development agencies such as the World Bank is to operationalize the concept of social capital and to demonstrate how and how much it affects development outcomes. Ways need to be found to create an environment supportive of the emergence of social capital as well as to invest in it directly. These are the objectives of the Social Capital Initiative (SCI). With the help of a generous grant of the Government of Denmark, the Initiative has funded a set of twelve projects which will help define and measure social capital in better ways, and lead to improved monitoring of the stock, evolution and impact of social capital. The SCI seeks to provide empirical evidence from more than a dozen countries, as a basis to design better development interventions which can both safeguard existing social capital and promote the creation of new social capital.

This working paper series reports on the progress of the SCI. It hopes to contribute to the international debate on the role of social capital as an element of sustainable development.

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ABSTRACT

If social capital is to be more than a vague symbol, it must have instrumental significance. It should be a resource that contributes to the production of goods and services. This challenge was explicitly stated in the initial World Bank review of Expanding the Measure of Wealth (1997). It raised the possibility of adding a "fourth" dimension to the evaluation of a society's resource, above and beyond that measured by assets producing the gross domestic product, natural resources and human capital.

While most current research about social capital assumes that it makes a major contribution to society, it does not produce empirical evidence to demonstrate this. Even more important, focusing only on social capital ignores the importance of many things that are instrumentally important in the production of goods and services such as education, natural resources and capital equipment. Defining social capital in terms of social psychological attributes such as trust in other people invites the "So what" question: What does all this have to do with the measurable production of welfare?

The purpose of this paper is to test the instrumental significance of social capital empirically. It first sets out alternative models of the production of welfare, starting with familiar human capital indicators such as education; moving to familiar measures of social integration such as organizational membership; and thirdly considering novel social capital measures that may add to our understanding. Secondly, the paper presents empirical survey-based data about social capital networks in Russia. While Russia is not a typical modern society, for that very reason it has some things in common with many countries in the world where non-modern networks are significant. Multiple regression techniques are then used to test the extent to which varied forms of social capital do (or do not) add to basic components of welfare: getting enough food, income security; and emotional and physical health. The results show that in some forms and in some circumstances social capital networks do produce some increase in individual welfare. But the results also emphasize that social capital should not be analyzed in isolation but as part of a portfolio of resources that individuals use to secure welfare.

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I. SOCIAL CAPITAL IN MODELS OF WELFARE PRODUCTION

Social capital networks that produce goods and services are not a new phenomenon; they are an inevitable part of every society, ancient or modern, high income or low income.¹ By contrast, defining social capital in terms of "trust", as Inglehart (1997: 188ff) does in analyzing World Values Survey data, restricts social capital to "trusting" societies. A joint stock company, a Grameen bank and agricultural cooperatives are positive examples of the instrumental use of social capital to produce goods and services. Ignoring rules to do favors for friends or taking a bribe in return for allocating public property are examples of networks mis-allocating goods, that is, breaking the rules governing state and market in a modern society.

Networks can be informal or formal. Informal social networks are face-to-face relationships between a limited number of individuals who know each other and are bound together by kinship, friendship or propinquity. They are institutions in the sociological sense of having patterned and recurring interaction. But insofar as such "institutions" lack legal recognition, fulltime officials, written rules and their own funds, they are not formal organizations. Thus, the characteristic output of informal networks is small-scale do-it-yourself services such as help in repairing a house, child care or advice and contacts to an individual faced with an unfamiliar situation. Most outputs of informal networks are unrecorded in national income accounts. Many are incalculable, being based on affection or obligation within a family, extended family or friendship network.

Social capital networks can become formal organizations that are rule-bound, bureaucratic, have a legal personality and secure revenue from the market or taxation or operate as a charity. A formal organization can have individuals as its members, for example, a professional association of doctors, or its members can be organizations, for example, an association of hospitals. The links between actual individuals and national organizational leaders are intermediated many times as in the relation between the managers of a joint stock company and its shareholders, or a country's president and its electorate. Formal organizations are a necessary part of a modern society, which by definition requires impersonal bureaucratic organizations of state and market that can routinely produce complex goods such as automobiles and services such as university education (Weber, 1968; Woolcock, 1998: 169ff).

In the ideal-type modern society, people do not need a repertoire of tactics for dealing with formal organizations; bureaucratic organizations are predictably expected to deliver goods and services to individuals as citizens and customers. To invoke Weber, modern organizations operate like a vending machine: a person inserts an entitlement or money and the expected good or service is delivered. In a modern society we do not think it unusual if electricity is supplied without interruption and regularly billed, an airline ticket booked by phone is ready to pick up at the airport, or a pension is paid routinely each month. If people use informal networks this choice is not a vote of no confidence in state and market organizations.

¹ Networks that re-allocate goods and services, for example, helping individuals jump the queue for admission to a hospital, do not increase the national product in aggregate--but they do produce additional goods and services for the individuals who benefit from such re-allocation. Given the focus of this paper on individual welfare, re-allocation is here subsumed within a broad definition of production.

Informal and formal networks are often linked. They can be cooperative, for example, when individuals have informal relations in a union branch that is connected with regional and national headquarters. Or relations can be antagonistic, for example, informal networks may protect corrupt policemen from investigation by their superiors. The interaction between formal and informal networks accounts for the readiness with which discussions can move back and forth between informal networks such as the extended family and formal networks such as limited liability companies. Fukuyama (1995) argues that cross-cultural variation in informal networks accounts for cross-national differences in the characteristic form of business enterprises (see also North, 1990: 36, and Humphrey and Schmitz, 1998).

Like social capital, welfare is a word that is used with many different meanings. Here it is defined in terms of positively valued basic conditions of individuals, such as having a sufficiency of food, health, income, housing, safety from crime, and similar needs common to countries at all levels of income. Just as mean national levels of welfare vary, so too does the welfare of individuals within a society. What is specially important here is that there is more than one way to secure welfare; it can be purchased, it can be provided free of charge by the state, produced informally without any money changing hands, obtained by begging patrons or through connections or bribes to bureaucrats. In a high-income country, money is often used to secure welfare, for example buying food, medical and hospital treatment, and investing in household security systems. In a low-income country, welfare may be secured by growing food, folk medicines, and relying on friends and neighbors.

The logic of a "mixed society" (Rose, 1986) is that individuals and households are much more concerned with their total welfare than with its source. Many basic elements of welfare are the joint outcome of a multiplicity of resources. For example, health results from individual diet and exercise; informal support from friends and neighbors when feeling unwell; medical services for which payment may be made; and hospital care in a public institution. The specific network employed by a given individual can vary from situation to situation. In a modern society individuals may rely on the market for food but rely on informal social networks for their emotional wellbeing. To reduce the concept of social capital to a single type of network--whether informal non-monetized cooperation or formal organizations--forecloses understanding the variety of networks that individuals can have.² It also ignores a basic analytic question: to what extent and under what circumstances do individuals differ in their reliance on social capital networks for welfare?

Concern with the organizational forms of collective action led Coleman (1990: 302) to define social capital in terms of networks that can be used as instruments for the production of goods and services. Coleman also emphasized that networks tend to be situational. Getting a pension involves interaction with officials in a large bureaucratic organization, whereas organizing a social evening for a church depends on informal personal networks. Insofar as networks vary between situations, social capital cannot be reduced to a single unit of account that can be aggregated into a summary statistic characterizing the whole of society. Nor can individuals be characterized as having or not having social capital.

² Putnam's definition (1995: 664f) conflates three elements, two of which are social psychological attitudes, norms and

Theoretical differences in defining social capital lead to very different predictions about how much (or how little) social capital adds to the production of welfare (Table 1). Micro-economic theories conventionally conceive of welfare as the outcome of individual attributes, particularly income (Model 1). However, ignoring the difference between monetized and non-monetized sources of welfare restricts theories to societies where non-monetized informal sources are of minimal importance for welfare. Sociologists invoke occupational class or social status as alternative materialistic definitions of individual determinants of welfare. Education is a human capital determinant of individual welfare, either directly (educated people can look after themselves better) or indirectly (education tends to determine income). Such theories support the null hypothesis: Social capital adds nothing to the production of welfare, because it is determined by individual socio-economic attributes.

Table 1. Five Theories of Welfare Production

Model 1: Individual socio-economic attributes--income, age, education, gender, social status, number of employed persons in the household, etc.-- determine welfare in most situations. (Also, the null hypothesis).

Model 2: Conventional measures of social integration in institutions, e.g. membership in organizations, trust in people, church attendance--determine welfare in most situations.

Model 3: Generic social capital--extent of access to modern, anti-modern, market or informal resources or exclusion from all networks--determine welfare in most situations.

Model 4: Sector-specific social capital networks, which vary from situation to situation, (e.g. one person has a friend working in a hospital, another a plot of ground for growing food) determine the housing department of a municipality) determine welfare situation by situation.

Model 5: Composite model. Some--but not necessarily all of the above models account for welfare in most situations.

(For fuller specification of influences, see Appendix A)

Proponents of social capital face the Monsieur Jourdain problem. Like the character in Molière's Le Bourgeois Gentilhomme, the new phrase may refer to prosaic influences that are often included as measures of social integration in sociological surveys, such as church attendance. The influences hypothesized in Model 2 differ from conventional socio-economic influences because they are based on social relations between individuals. For example, church attendance involves an individual in a community of believers, who can help each other (and ignore those outside this community), because they not only share beliefs but also have strong face-to-face ties. While a village may be internally divided, villagers all know each other and can form a strong solidary

trust, and only one of which is behavioral, networks.

network vis-a-vis outsiders, whether marauders from another village or a tax collector from the national capital. Putnam's (1993) theory of social capital is that "horizontal" face-to-face integration spills upwards into a nationally integrated network of hierarchical institutions of civil society to Make Democracy Work.

The micro-level foundations of social capital theories are ambiguous. A given quantum of aggregate social capital can be produced by half a society having lots of social capital and the other half having none--or by everyone in society have an equal quantum of social capital. Yet even then individual networks may operate in different situations. Social psychological theories of trust normally treat social capital as a diffuse attribute of an individual--a person trusts others in many different situations. Generic theories of social capital are applicable whether networks are informal or modern or involve corrupt "anti-modern" networks that subvert modern institutions (Model 3). The logic of generic social capital is the basis of most theories of social exclusion, for a poor, uneducated or blind person is expected to be excluded from productive networks across a wide range of welfare goods and services (cf. Room, 1995). Coleman's emphasis on situational networks assumes that social capital is not fungible (Model 4). From this perspective, networks are sector-specific, that is, a network useful in a small enterprise making specialist machine tools or organizing amateur theatricals will not transfer to situations in other sectors. Coleman's approach thus contrasts with most theories of social integration, which emphasize the diffuse significance cutting across sectors of influences that typically arise early in socialization.

While there are many mono-causal theories about the productive value of social capital, except for the null hypothesis they are not mutually exclusive. Differences between most models in Table 1 can be matters of emphasis rather than contradictions in terms. Insofar as this is the case, welfare production will reflect a combination of influences, and thus be best explained by a composite model that incorporates all four hypothesized influences (Model 5).

II. SOCIAL CAPITAL OUTSIDE MODERN SOCIETIES

The concept of social capital is generic, but the importance of different types of networks is likely to vary between societies. In the ideal-type low-income society, informal non-monetized networks will be relatively prominent, if only by default. But formal networks are likely to be most important in a rich, well educated high-technology society where preparing meals and child care can be dealt with by paying for services recorded in national accounts and labor force statistics. Developing societies can be mixed in two different ways: one part may rely mostly on impersonal formal networks like those in a developed society; another may rely on a mixture of formal and informal networks; and a third primarily on informal networks (cf. Narayan, 1999).

Dynamically, development can be conceived as formal organizational networks, such as large-business enterprises and public sector institutions delivering services nationwide, increasing in importance and replacing informal, localized and often non-monetized networks. To some extent, dynamic change can involve the substitution of one type of network for another with no net increase in aggregate welfare. But dynamic change can also involve an increase in total welfare in the household, insofar as greater use of formal networks is more efficient and effective. While the rediscovery of informal social networks in OECD societies is a useful reminder of the diversity of behavior patterns in a modern society, it would be absurd to pretend that in the United States social capital networks have not changed since Tocqueville's visit, when more than 90 percent of Americans lived in communities of less than 2500 persons and the communication technologies that integrate people in a modern society had not yet been invented (cf. Newton, 1999).

Communist societies were organized--but not in keeping with the standard international development paradigm. There was a non-market command economy in which goods and services were allocated by bureaucratic politics (cf. Kornai, 1992). Leninist doctrine conceived of the Communist Party as an organizational weapon for seizing power; Stalinism developed the party as an organization with the totalitarian vocation of abolishing informal social networks and mobilizing the population into party-led formal organizations covering every sphere of social life. Whilst mobilizational efforts were slackened after the death of Stalin, the apparatus was still in place when Communist regimes fell (cf. Jowitt, 1992; Roeder, 1993). In reaction against top-down efforts at mobilizations, individuals often relied on informal networks to provide goods and services independently of formal organizations, thus creating an hour-glass society (Shlapentokh, 1989; Rose, 1995) and/or using informal contacts, generically described as blat, to re-allocate resources of public agencies to private advantage (cf. Wedel, 1992; Ledeneva, 1998). These practices have continued since the collapse of Communism, as informal networks of households have provided mutual aid as a cushion against the shocks of transformation, and as members of the old party elite have used their network capital to promote nomenclature privatization (cf. Blasi et al., 1997; Stark, 1992; Hedlund and Sundström, 1996).

In its capital equipment and human capital, Russia today appears a modern society rich in natural resources. Nearly everyone in the labor force has at least a secondary education, three-quarters of the population is urban, and telecommunication and transport link a population dispersed across eleven time zones. However, there is widespread evidence of "organizational

failure" cutting across the public and private sectors. While organizations are complex, bureaucratic rules may be an excuse for rent-seeking or broken in return for bribes or favors; decisionmaking can be opaque; the rule of law flouted; cause-and-effect relationships uncertain or unpredictable rather than calculable; and production of goods and services inefficient even when effective. Russia today is not so much a modernizing society as it is an "anti-modern" society in the throes of change (cf. Rose, 1998).

While life in the Russian Federation today is far distant from Weber's ideal-type modern society or Putnam's civic democracy, many of the organizational pathologies found there also exist in other parts of the world. Because it is very much a society in transformation, analyzing formal and informal social capital networks there provides a robust test of under what circumstances and to what extent each is important.

Whatever a society's institutional structure, individuals within it are likely to differ in their reliance on formal and/or informal networks. Holistic characterizations of cultures and societies as "trusting" or "thick" or "thin" in network structures are only meaningful insofar as there is a substantial amount of homogeneity within a society, or at least one perspective is hegemonic. However, the systematic analysis of macro and micro-level data across ten post-Communist countries emphasizes the importance of within-society differences as against between-society differences for trust in institutions (Mishler and Rose, 1998; see also Dasgupta, 1988).

Because welfare measures such as health and food consumption are attributes of individuals, individual-level data is essential to understand the relationship between networks and welfare, and secondary analysis of a survey designed for different purposes cannot be expected to have a full set of measures of social capital and of welfare.³ Thanks to the support of the World Bank Social Capital Initiative, the survey data analyzed here is the product of a questionnaire specially designed to identify social capital networks that have the potential to produce welfare. The well established research organization, VCIOM (the Russian Centre for Public Opinion Research) drew a multi-stage randomly stratified sample covering the whole of the Russian Federation, urban and rural, and interviewed 1,904 adult Russians face-to-face in 191 widely dispersed primary sampling units (for sample details, see Rose, 1998a: 72ff; the Russian-language questionnaire is available on request). Fieldwork took place between 6 March and 13 April 1998, months before the financial collapse of August, 1998. It revealed substantial evidence of pathological problems in social institutions, many of which had already been documented in previous New Russia Barometer surveys starting in January, 1992 (cf. WWW.cspp.strath.ac.uk). Insofar as the behavior of ordinary Russians has been affected by the financial collapse of August, 1998, it is likely to have become more reliant on "informal" or "anti-modern" networks. The picture presented here may thus understate the extent to which the use of social capital networks deviates from the modern norm.

Consistent with the foregoing discussion, the questionnaire focuses on networks in different situations directly affecting a majority of people--food, housing, protection from crime on the

³ Even if tables of official statistics about social conditions in Russia were completely accurate rather than substantially inadequate, it is not possible to confirm hypotheses about cause-and-effect relationships without access to data at the individual level. Cf. Atkinson and Micklewright, 1992; Rose and McAllister, 1996).

streets and at home, income security, health, and governance--rather than on activities of a minority. Within each module, individuals were asked how they routinely secure these goods and services. The alternatives for doing so range from routine reliance on market or public sector organizations to informal household production or doing without. The emphasis on the delivery of goods and services to the respondent, family members or friends and neighbors has greater face validity than questions about trust in distant national institutions. Giving scope to formal networks avoids the anthropological fallacy of treating every relation as "outside" modern structures; it also avoids the formalist fallacy of assuming that formal organizations actually represent the people on whose behalf they claim to speak. The Social Capital survey found that in Russia, four-fifths to nine-tenths do not belong to any voluntary association.⁴

The pages that follow focus on three different welfare outputs: food, income security and health. In order to identify how much (or how little) social capital networks add to the production of each form of welfare, a series of models are tested with multiple regression analysis. In the first run, only individual attributes relevant in conventional socio-economic model, such as income and education, are included. Then, four network models--social integration, generic social capital, social exclusion, and sector-specific social capital--are each tested separately to see how much of the variance in welfare that each model can explain on its own.

The composite model is tested in a final regression that includes all the independent variables. (Table 2). Because income is normally shared within the household, the income measure is total household monthly income, and it is from all sources to avoid the mistake of assuming that official wages are the sole source of cash income--or that they are paid regularly. The measures of social integration include familiar social capital indicators such as trust in other people and belonging to organizations, as well as having someone in the family who was or is a Communist Party member. The three generic measures of social capital are additive scores of the situations in which individuals invoke a modern network, turn to an informal network or to an anti-modern (that is, clientelistic or corrupt) network to secure goods and services. The social exclusion scale tabulates the number of situations in which individuals do not have any network to which they can turn when organizations failure. Sector-specific influences, such as having a plot of land for growing food or smoking, are detailed in the Appendix Table 1.

⁴ In reply to a series of explicit questions, less than 5 percent of Russians said they belong to a sports, music or arts club, housing or neighborhood association or a political party (Rose, 1998: 60). Altogether, 91 percent are not members of any face-to-face organization. If associational involvement is expanded to include those attending church at least once a month (4 percent) and union members who trust local union leaders to represent their interests (8 percent), the proportion of Russians outside all institutions of civil society remains very high, at 79 percent.

Table 2. Influences on Welfare: The Independent Variables

Individual socio-economic attributes

Total monthly household income from all sources
Number of employed persons in household
Subjective social status
Age
Education
Gender

Social integration

Communist Party member in family
Churchgoer
Lives in village
Belongs to a formal organization
Trusts most people
Friends are good source of information
Opinion leader
Relies on government, public agencies for helping with problem
Able to control own life

Generic social capital

Frequency of using market networks
Frequency of using informal networks

Frequency of using anti-modern networks

Social exclusion

(Frequency of having no network to turn to)

Sector-specific influences

Food (4): Having plot of land, helping others with land, etc.
Income security: (5): Number of employees at enterprise, union membership, etc.
Health (5): Exercise, smoking, etc.

(Fuller details in Appendix Table 1)

III. SOCIAL CAPITAL FOR SURVIVAL

Food is basic to welfare, a necessity for survival. Where malnutrition is widespread and famine a threat the point is very evident, while the need for food is often taken for granted in modern societies. The Soviet introduction of the collectivization of agriculture in the 1930s was intended to create factory-style efficiency. After a period of terror and famine, the collective farm system became a large-scale producer of food but its mismatch of supply and demand and inadequacies in distribution made food shops an erratic and unreliable source of foodstuffs. In response, Russian households "de-modernized", growing food for themselves on small vegetable plots to supplement what they could buy in stores and as protection against intermittent shortages of food in shops.

Food production in Russia today remains a striking example of a "mixed" economy. The majority of persons growing food live in cities rather than rural areas; they are not employed in agriculture but in industry or the service sector; and they produce food for household consumption rather than sale (Rose and Tikhomirov, 1993; Rose, 1998: 1ff). In a society that is three-quarters urban, 71 percent of households have a plot of land where they can grow food, and half of the remainder sometimes help relatives or friends grow food. The introduction of market institutions has removed many of the supply-side bottlenecks of the old economy. Today, a majority of Russians sometimes buy food at big stores, and also at local shops and two-fifths from street traders. Total food consumption in the family thus combines resources drawn from a multiplicity of networks from importers of packaged food to factory-produced Russian chocolates to local bakeries to potatoes grown at one's vegetable plot.

Since households do not buy all the food they consume, expenditure-based measures understate food consumption. The New Russia Barometer uses a destitution-oriented measure of food consumption, asking: *In the past twelve months did your family often, sometimes, rarely or never have to do without food?* Replies show variability: the modal group, 29 percent, say they have never had to do without food in the past year; 24 percent report rarely; 28 percent sometimes; and 19 percent often doing without food. The median Russian is resilient, occasionally doing without food but then finding ways of getting around short-term deprivation (Rose, 1995).

Of the five network models taken separately, the conventional socio-economic model shows the best fit, accounting for 13 percent of the variance in getting sufficient food (Figure 1; for more details see Appendix Table 2). Of the six individual attributes in the socio-economic model, income, subjective social class and gender are each significant at the five percent level, while age, education and the number of persons employed in the household are not significant. Income and class each have substantial Betas (.21), and women are more likely to do without food than men (-.10).

Figure 1. Determinants of Getting Enough Food
Frequency of Doing Without Food
Variance explained by different models:

Source: New Russia Barometer Social Capital Survey, March 6- April 13, 1998. Nationwide random sample by VCIOM: 1,904 respondents. For full details, see Appendix Table 2.

Social capital networks also influence the likelihood of Russians having to do without food. Altogether, measures of social integration account for 5 percent of the variance, but only one influence is substantial: the extent to which a person feels in control of their own life rather than being dependent on fate or other external forces (Beta: .21). Consistent with earlier research, people who live in villages or rural areas are no more likely to have food than city-dwellers. Generic measures of social capital similarly explain 5 percent of the variance. At this point the perverse effect of social capital networks registers, for not only are people who make frequent use of the market significantly more likely to have a sufficiency of food, but the same is true of people who rely on anti-modern methods to get things done. Sector-specific influences do not account for any of the variation in getting enough food. People who do not have sector-specific advantages, such as a plot of land of their own, can use a higher income or anti-modern networks to get things done.

When all the influences are combined in a composite model, the total variance explained rises to 16.5 percent. As of 1998 modern socio-economic influences have become the most important though not the sole determinant of securing a sufficiency of food. Net of other influences, living in a village now appears of secondary significance (Beta: .06) The relative influence of generic social capital networks and controlling one's own life decline, but still remain significant (Table A.2). Social exclusion loses all significance.

IV. INCOME SECURITY

The loss of a money income through unemployment, industrial injury or old age is a classic welfare concern. The welfare state offers a panoply of programs to fill the gap. The Soviet system promised income security too, albeit at a far lower absolute level than OECD countries. The transformation of that system has brought with it new opportunities for prosperity in a market economy, but it has also revealed widespread evidence of organizational failure. Russian institutions were defaulting in the payment of wages and pensions to which citizens were entitled well before they were defaulting in payments to international bankers and the IMF.

The Social Capital survey carried out a few months before the financial default of August, 1998, found that three-fifths of Russians did not routinely receive their wage or pension (Figure 2). Wages were more likely to be paid late to employees of such public sector organizations as the military, education and state enterprises than to employees in the private sector, but even half the new private sector firms could not pay their employees regularly. Pensions, a state responsibility that is easy to routinize in a modern society, were even more likely to be paid late than wages. The Russian state was thus a leader in generating income insecurity.

Figure 2. Regularity of Income

Steady income: Always employed and wages never late, or Pensioner and pension paid on time

Unemployed: Positive reply

Wages paid late: Always employed and wages delayed

Employed, not paid: Always employed and wages not paid

Pension delayed: Pensioner and pension delayed

Source: New Russia Barometer Survey VII (1998). Fieldwork by VCIOM; number of respondents: 1,904

Paradoxically, more nominally employed Russians go without a weekly wage than do unemployed Russians. Of those who file a claim for an unemployment benefit or similar income supplement, only a sixth have it paid promptly, and three-eighths find their claim is never paid. Since inflation has wiped out such savings as Russians have, borrowing is the best way of securing money in place of unpaid wages or benefits. However, only 16 percent of Russians reckon that they could borrow as much as a week's wage or pension from a bank. Yet exclusion from formal mechanisms for income security does not leave people destitute. A total of 66 percent reckon they can borrow a week's wage or pension from a friend or relative, while only 18 percent think they cannot, with the remaining sixth uncertain.

Social capital networks are the predominant source of income security in Russia today (Figure 3). For those in employment, the degree of social integration accounts for 8 percent of the variance in income security, generic social capital for 6 percent, and sector-specific social capital for 4 percent. The informality of social integration is emphasized by the failure of organizational membership to be significant, whereas being an opinion leader, having friends who are reliable sources of information and trusting other people are all significant influences underpinning income security. So too is regarding people at work as helpful. Generic indicators of social capital--involvement in the market and reliance on anti-market networks--are each substantial. While four of the six socio-economic attributes of individuals register as statistically significant, together they account for only 4 percent of the total variance. While household income and individual income appear significant in the restricted model, neither is significant in the composite model (see Appendix Table 3A.)

Figure 3. Determinants of Income Security
Can Borrow Week's Wage/Pension from Friends, Relatives
Variance explained by different models:

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide random sample by VCIOM: 1,904 respondents. For full details, see Appendix Tables 3.

When pensioners, the unemployed and students are included, the overall determination of income security remains the same: composite models explain 13 percent of the variance here too. Social capital networks are again the primary influences. But individual socio-economic attributes register more importance as the larger pool of adults increases the variability of age and education, and sector-specific social capital is reduced (Figure 3B).

Whether the focus is on income security for all adults or employed adults, social integration measures are consistently the most prominent. For both composite models, opinion leadership and relying on friends for information, trusting most people, and belief in controlling one's own life are significant. The politicization of welfare is illustrated by a link with the Communist Party making it easier for people to borrow money. So too does involvement in more anti-modern networks. Relying solely on government for help actually reduces income security! Age is the only consistently significant socio-economic influence; older people tend to have less income security. It is notable that among employed people neither household nor individual income influences income security, whereas such informal factors as the helpfulness of people at work does.

V. HEALTH

Health is pre-eminently an individual attribute and, in the absence of contagious or epidemic diseases, the actions an individual takes for example, a choice of diet, are important, and so are such "uncontrollable" characteristics as age. Yet as epidemiological studies show, an individual's social milieu can and does influence health. The hospital and medical facilities produced by public and market expenditure complement individual actions, providing services such as surgery and diagnosis and pharmaceutical for which informal networks or self-reliance are inadequate.

While Communist systems boasted about generous public policies to promote health, actual achievements, whether judged by life expectancy or infant mortality, were actually inferior to Central European societies not behind the Iron Curtain. Since transformation, public health data has reported the absolute as well as relative deterioration of health in the Russian Federation. Moreover, the causes of early death are often said to be social, e.g. inflation, environmental pollution or individual anomie resulting from a collapse of old social norms. However, inferences about individuals cannot be tested by aggregate data. Nor can data about the conditions of very small subsets of population, such as adult males within a narrow age bracket dying prematurely, confidently be generalized to explain deviations around the mean. Nor do mortality statistics explain why some Russians are living longer than average.

The Social Capital survey asked respondents to report both their emotional and physical health during the past twelve months. Evidence of emotional wellbeing is important in itself; emotional disturbances can cause physical ill health; and social capital networks ought to provide support that reduces emotional depression. The largest Russian group, 59 percent, said their emotional health had been average; 16 percent said it was good or very good; and 24 percent poor or very poor.

Social capital networks exert substantial influence on emotional health. Social integration explains almost 10 percent of the total variance (Figure 4). Within this category, the most important influence by far is the extent to which an individual feels able to control their own life (Beta: .28), an individual attitude that is significant in advanced societies. Generically, the more individuals are able to rely on the market or on anti-modern networks, the better their emotional health, and the more socially excluded they are, the worse. Sector-specific indicators also influence health. The most important is having someone to rely on if ill; the greater the likelihood of this practical form of social network support, the better a person's emotional health (for details, see Appendix Table 4).

Figure 4. Determinants of Health
Variance explained by different models

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide random sample by VCIOM: 1,904 respondents. For full details, see Appendix Tables 4 and 5.

Individual socio-economic attributes also have a substantial influence on emotional health. Those with higher income and higher subjective social status are more likely to feel healthy, and older people and women are less likely to feel emotionally secure. Altogether, these attributes account for 12 percent of variance explained. Social capital adds something, for the composite model explains 19 percent of the variance. Bringing more influences into the equation reduces the degree of influence of social capital measures, but controlling one's own life, social exclusion and relying on others when ill remain significant and substantial.

Ironically, the best indicator of physical health is that an individual does not need medical or hospital facilities. People use these services when they have problems and seek to have their health restored or pains alleviated. When asked--*In the past year have you sometimes felt so bad that you could not go to work or engage in your everyday activities*--the largest group of Russians, 42 percent, said that not once had their daily routine been disrupted; 18 percent said this had happened once, 9 percent twice, and 31 percent reported having health problems a number of times. Among those who had been unwell, two-thirds said that they had visited a doctor. People usually did not go to a doctor because they were 'not that ill' or a home remedy or pills were used. Only a fifth who did not seek a doctor said this was due to the bad service given. Of those who did see a doctor, half reported favorably on their visit and half were unfavorable (for more details, see Rose, 1998: 53ff).

Individual attributes--starting with age--are the most important determinants of physical health. The worse health of women is to some extent misleading: older women are more likely to be unhealthy than are men, because premature mortality removes older Russian males from the reach of sample surveys. Subjective social status exerts a positive influence on physical health, but not income or education. While a variety of social capital measures exert at least a little influence on physical health, the variance explained by each social capital model is much lower than for emotional health. In the composite model having someone to rely on when ill and trusting other people are each significant for physical health, but not so important as age or class (Figure 4B; Appendix Table 5).

VI. WELFARE: THE IMPORTANCE OF A MULTI-CAUSAL MODEL

The question--which model of securing welfare fits best?--has an obvious answer: the composite model. For each measure of welfare, a model that includes both conventional socio-economic attributes of individuals and measures of social capital explains more variance than a restricted model. Moreover, the gap between the restricted and the composite model is often substantial. Since the restricted model that explains the most variance differs from one measure of welfare to another, it would be obscurantist to make an a priori commitment to explaining welfare solely by a socio-economic model or, alternatively, to treat welfare as solely a function of social capital. A multiplicity of influences determine individual welfare.

The preceding pages re-affirm the significance of conventional socio-economic determinants. This model is specially effective in accounting for who is most likely to have a sufficiency of food. It is also the most important in accounting for emotional health. There is only one measure of welfare--the income security of employed people--for which socio-economic influences offer little in the way of explanation. Age is consistently the most important socio-economic influence not only for health, where it is to be expected, but also for income security (Table 3). In the Russian Federation, older people are worse off than younger people. Older people are less likely to be adaptable, whereas younger people entering the labor market are not yet committed to a career and more welcoming of political change because not committed (or resigned) to the old regime.⁵ While education levels rise with each generation, after controlling for age, education has virtually no influence on welfare. Women tend to be worse off than men, even after controlling for age.

Table 3. Socio-Economic Influences on Welfare

	<u>Food</u>	<u>Income sec</u>		<u>Health</u>	
		All	Employed	Emotion	Phys
<i>(Betas if significant >.05 in composite model)</i>					
Age	-	-08	-08	-12	-13
Subj've social status	21	-	-	10	09
H/hold income	21	05	-	12	-
N employed h/hold	-	-	-	-	05
Female	-10	-	-	-09	-12
Education	-	06	-	-	-

Sources: As in Appendix Tables 2, 3 and 4.

The Social Capital survey addresses "class" with complementary measures of money (total household income and total number of wage-earners in the household) and a subjective measure of social status. (An occupational measure of class is inappropriate in Russia, given its past, the scale

⁵ Resistance to adaptation—"I'm too old to change"--is a social psychological construct as well as a function of biological age. There is survey evidence indicating that Russians tend to age earlier in the life cycle than Central Europeans who were also socialized under a Communist regime.

of economic dislocations, multiple jobs, etc.) Household income is significant for three of the five measures of welfare, and does not depend on the number of employed persons in the household. Russians have a low sense of social esteem. On a 10 point social status scale, with 10 the lowest status, the mean of responses is 7.1. Almost a third of respondents place themselves in the two bottom categories and only 8 percent place themselves in the top four categories. The lower a person's sense of social status and esteem, the lower their welfare.

Social capital networks do promote individual welfare--but differ in specifics and extent from one situation to another. Among the variety of social capital measures, those in the social integration model are best able to explain variance in welfare (Table 4). In the parlous state of the Russian economy, social integration is as good or better determinant of income security than conventional socio-economic attributes and the social integration model is also well suited to explain emotional health. Among the multiplicity of measures of social integration, the ability to control what happens to oneself is normally the most important. Amidst the turbulence of post-Soviet transformation, the capacity of an individual to control their own life is not to be taken for granted, nor do Russians do so. The mean response is almost at the middle of a 10-point scale, 5.2. Yet there is a normal distribution around this mean, showing that while some people may be so dependent on stable social norms that disruption causes anomie, other individuals do succeed in taking charge of their circumstances. People who surmount socially imposed difficulties thereby become stronger in emotional health, just as those who fail to do so may become more angst-ridden.

Informal networks of individuals who share opinions, information and trust each other also frequently augment welfare. Their impact is not so great as the literature of face-to-face trust suggests, a reminder that welfare is often influenced by impersonal organizations and pervasive macro-societal forces. The limits to informal friendship groups producing welfare is shown by the failure of living in a village, where face-to-face interaction is greatest, to register a significant influence on any welfare measure examined here, including food. Being a churchgoer is only once barely significant, and belonging to an organization likewise shows no significance.

Social capital networks appear to have pervasive utility, for the cumulative involvement in a generic network influences income security, having a sufficiency of food and emotional health. Of the four generic measures, social exclusion is, as might be expected, the most likely to have a substantial effect, depressing welfare. However, only a limited minority of Russians can be described as consistently excluded; on a 9-point social exclusion scale the mean response is 2.4, and only one in ten is excluded on a majority of measures. Anti-modern networks are more widespread, and also more important for income security. The statistical significance of market networks is noteworthy, but involvement in the market is even lower than for social exclusion. Completely informal face-to-face networks that avoid any contact with formal organizations are rarely of any significance. Russians are more likely to rely on anti-modern networks for welfare.

Table 4. Social Capital Influences on Welfare

	<u>Food</u>	<u>Income sec</u>		<u>Health</u>	
		All	Employed	Emotion	Phys
(Betas if significant >.05 in composite model)					
SOCIAL INTEGRATION					
Control own life	21	08	09	18	-
Trusts most people	-	06	-07	09	05
Use friends for info.	05	10	07	-04	-
Opinion leader	-	06	13	-	-
Communist link	-	08	09	-	-08
Relies government	-	05	-07	-	-
Churchgoer	-	-	-	-	07
Villager	-	-	-	-	-
Belongs to organization	-	-	-	-	-
GENERIC SOCIAL CAPITAL					
Anti-modern	14	11	17	-	-
Market	18	05	-	-	-
Social exclusion	-21	-07	-	-11	-
Informal	-	-	-	-06	-
SECTOR-SPECIFIC					
Someone rely on if ill				10	08
Exercise by self			-08	-	
Smoker				-	-05
Pay doctor				-	-06
Having plot of land	07				
People at work helpful		-	09		

Sources: As in Appendix Tables 2, 3 and 4.

Notwithstanding Coleman's strong a priori arguments about the situational nature of social capital, sector-specific networks usually have little or no significance for welfare. Even though the indicators are contextually linked with particular welfare outcomes, sector-specific models account for any of the variance in getting enough food, and only achieve a noteworthy level (6 percent of variance explained) in relation to emotional health. However, Coleman's broader point is supported, for there is substantial variability in what determines welfare from one context to another.

While the contingency in multi-causal welfare models may be frustrating for anyone seeking a single determinant, whether income, trust in people or membership in organizations, multiple causation can be an asset for a person struggling to cope in a turbulent environment. It means that a person does not need to rely on a single source of welfare and that the lack of one resource, whether a high cash income, education or family ties to the Communist party, will not of itself cause a major loss in welfare. When causes are multiple, there are substantial opportunities to substitute resources for each other, so that a person who may lack one resource for welfare, whether socio-economic or networking, may have another that can provide an equivalent level of wellbeing. Statistical analysis confirms a message that many Russians learned long ago: a portfolio of

resources, combining socio-economic advantages and social networks, is the best way to secure welfare.

For policymakers, there are both negative and positive implications. Prior to the crisis of the Russian financial system in August, 1998, the Social Capital survey documented warning against relying solely on aggregated measures of system performance, such as inflation. M1, M2 or M3 monetary statistics, or changes in the officially reported gross domestic product. Such measures are neither derived from micro-data nor are they consistent with what Russians were experiencing and very ready to report about their everyday activities. The fallacy of inferring micro-level welfare from macro-level statistics is avoidable, for, as the Social Capital survey demonstrates, micro-level measures of welfare can be collected by normal social science methods.

The importance of familiar socio-economic attributes for welfare is scientifically encouraging, inasmuch as such variables as age and gender are among the easiest to measure empirically. However, from a policymaking perspective this is dispiriting, because these influences are least amenable to change through public policy. More encouraging is the evidence that income has some (but by no means a dominant) influence on welfare. Since Russian policymakers are themselves distrusted by most citizens, this explains why organizational failure is not the disaster that is sometimes headlined. Russians learned a long time ago to protect themselves from the Ministry for Social Protection. Individual Russians do not rely for their welfare on a government that cannot pay wages or pensions on time. In addition to socio-economic attributes that they can claim for themselves, Russians rely on some but not kinds of social networks to add to their welfare.

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TABLE A.1 STATISTICS: SOCIAL CAPITAL

	Minimum	Maximum	Mean	Std. Dev.
DEPENDENT VARIABLES				
Housing conditions	1 Unsatis++	4 Satisf++	2.87	0.92
Doing without: food	1 Often	4 Never	2.64	1.09
Borrow week salary: friends	1 Defin.not	4 Definitely	3.03	0.98
Emotional health	1 Poor	3 Good	1.92	0.63
Physical health: purses normal activities	1 Never	3 Few times	2.10	0.85
Lacking food, clothes, heating	0 Never	7 Often	3.48	2.20
INDIVIDUAL ATTRIBUTES				
Female	0 Male	1 Female	0.54	0.50
Age	18 years	90 years	44.19	15.89
N employed in HH	0 persons	3 persons	1.36	0.92
Education	1 Elementary	9 University	5.17	2.53
Social status scale position	1 Lowest	7 Highest	3.85	1.95
H/hold total monthly income, all sources	175 roubles	4200 roubles	1166	935
SOCIAL INTEGRATION				
Communist Party member in family	0 No	1 Yes	0.34	0.47
Lives in village	0 No	1 Yes	0.26	0.44
Church attendance	0 Never	1 Attends	0.16	0.36
Uses: national/local: papers,TV	2 Rarely/never	12 Often all	8.37	2.41
Opinion leader: national/local	1 Outsider all	5 Leader all	3.00	1.74
Friends as source info.	2 Never true	8 Always true	5.46	1.44
Relies on govt for help	0 No	1 Yes	0.08	0.27
Most people can be trusted or extra care	1 Careful most	4 Trust most	2.20	0.85
Belongs to at least one organization	0 No	1 Yes	0.09	0.29
Free choice and self control scale	1 None	10 A lot	5.17	2.33
GENERIC SOCIAL CAPITAL				
Modernity scale	0 None	8 Maximum	2.75	1.43
Market networks scale ⁶	0 None	8 Maximum	1.38	1.15
Informal networks scale ⁷	0 None	9 Maximum	3.90	1.38
Anti-modern scale ⁸	0 None	9 Maximum	3.19	1.89
Social exclusion scale ⁹	0 None	9 Maximum	2.39	1.52
SECTOR-SPECIFIC INFLUENCES				
FOOD				
Having land plot	0	1 Yes	0.72	0.45
Helping others work land	1 Never	4 Often	1.97	1.06
Getting food: grow ourselves	1 Never	4 Often	3.03	1.24
Getting food: given by friends, relatives	1 Often	4 Never	3.13	0.92
INCOME SECURITY				
Employed	0 No	1 Yes	0.43	0.50
INCOME SECURITY: EMPLOYED				
N employees at enterprise	1 <21 persons	6 >1000	3.17	1.66
People at work helpful	1 Never	4 Often	3.37	0.94
Trade union membership	0 No	1 Yes	0.22	0.42
Net own monthly income all sources	2 roubles	2500 roubles	695	507
HEALTH				
Exercise: by myself	0 No	1 Yes	0.66	0.47
Exercise: with friends, family	0 No	1 Yes	0.24	0.42
Smoking history	1 Never has	3 Smokes	1.82	0.91
Someone rely on if ill	1 Definitely no	4 Definitely	2.66	0.96
Pays/connections to see doctor	0 No	1 Yes	0.10	0.30

⁶ Uses market network for housing repair, personal safety, bank borrowing, retirement, getting a flat, using private doctors and hospital, private tutors.

⁷ Uses informal networks for housing repair, personal safety, precautions against theft, social benefit, retirement resources, getting a flat, getting to see doctor, hospital treatment, getting into university.

⁸ Uses anti-modern networks for housing repair, getting flat, personal safety, theft, portfolio, social benefit, permit, getting to see doctor, hospital treatment, getting into university.

⁹ No network for housing repair, social benefit, bank borrowing, retirement, getting a permit, getting a flat, seeing a doctor, hospital treatment, getting into university.

TABLE A.2 ALTERNATIVE MODELS OF GETTING ENOUGH FOOD

(DEPENDENT VARIABLE: FREQUENCY OF HAVING SUFFICIENT FOOD)

	Composite	Individual	Social capital			
			Social integ'n	Generic	Excluded	Sector-specific
(If significant influence >.05, betas given; if not: -) (If variable is not in model cell is blank)						
INDIVIDUAL ATTRIBUTES						
Income	17	21				
N employed in hhold	-	-				
Subjective social status	17	21				
Age	05	-				
Education	-	-				
Gender: female	-10	-10				
SOCIAL INTEGRATION						
Communist link	-		-			
Church-goer	-		-			
Villager	06		-			
Belongs to organization	-		-			
Trusts most people	-		-			
Uses friends for info.	-		05			
Opinion leader	-		-			
Relies on government help	-		-			
Can control own life	12		21			
GENERIC SOCIAL CAPITAL						
Market nexus	09			18		
Informal networks	-			-		
Anti-modern networks	06			14		
SOCIAL EXCLUSION	-				-21	
SECTOR-SPECIFIC: FOOD						
Having land plot	-					07
Helping others work land	-					-
Grow food ourselves	-					-
Get food from friends, family	-					-
% Variance explained: R ²	16.5	12.9	5.3	5.0	4.2	0.0

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide representative sample by VCIOM: 1,904 respondents. Full details of independent variables in Appendix A

TABLE A.3A INFLUENCES ON INCOME SECURITY (EMPLOYED ONLY)

(DEPENDENT VARIABLE: CAN BORROW A WEEK'S SALARY FROM FRIENDS)

	<u>Social capital</u>					
	Composite	Individual	Social integ'n	Generic	Excluded	Sector-specific
	(If significant influence >.05, betas given; if not: -) (If variable is not in model cell is blank)					
INDIVIDUAL ATTRIBUTES						
Income	-	10				
N employed in h/hold	-	-				
Subjective social status	-	09				
Age	-08	-09				
Education	-	10				
Gender: female	-	-				
SOCIAL INTEGRATION						
Communist link	09		-			
Church-goer	-		-			
Villager	-		10			
Belongs to organization	-		-			
Trusts most people	08		07			
Uses friends for info.	07		09			
Opinion leader	13		14			
Relies on government help	-07		-			
Can control own life	09		16			
GENERIC SOCIAL CAPITAL						
Market nexus	-			11		
Informal networks	-			-		
Anti-modern networks	17			23		
SOCIAL EXCLUSION	-				-18	
SECTOR-SPECIFIC						
N employees at enterprise						-
People at work helpful	09					17
Trade union member						-
Net monthly income: self						12
% Variance explained: R ²	13.3	4.1	8.0	5.8	3.2	4.2

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide representative sample by VCIOM: 1,904 respondents. Full details of independent variables in Appendix A

TABLE A.3B INFLUENCES ON INCOME SECURITY (ALL ADULTS)

(DEPENDENT VARIABLE: CAN BORROW A WEEK'S SALARY FROM FRIENDS)

	<u>Social capital</u>					
	Composite	Individual	Social integ'n	Generic	Excluded	Sector-specific
	(If significant influence >.05, betas given; if not: -) (If variable is not in model cell is blank)					
INDIVIDUAL ATTRIBUTES						
Income	05	10				
N employed in hhold	-	-				
Subjective social status	-	07				
Age	-06	-10				
Education	06	12				
Gender: female	-	-				
SOCIAL INTEGRATION						
Communist link	08		08			
Church-goer	-		-			
Villager	-		-			
Belongs to organization	-		06			
Trusts most people	06		-			
Uses friends for info.	10		12			
Opinion leader	06		09			
Relies on government help	-05		-			
Can control own life	08		16			
GENERIC SOCIAL CAPITAL						
Market nexus	05			15		
Informal networks	-			05		
Anti-modern networks	11			22		
SOCIAL EXCLUSION	-07				-24	
SECTOR-SPECIFIC						
Employed	-					12
% Variance explained: R ²	13.4	7.4	6.6	7.0	6.0	1.0

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide representative sample by VCIOM:1,904 respondents. Full details of independent variables in Appendix A

TABLE A.5 INFLUENCES ON PHYSICAL HEALTH

(DEPENDENT VARIABLE: PURSUES NORMAL ACTIVITIES ALL YEAR)

	Social capital					
	Composite	Individual	Social integ'n	Generic	Excluded	Sector-specific
	(If significant influence >.05, betas given; if not: -) (If variable is not in model cell is blank)					
INDIVIDUAL ATTRIBUTES						
Income	-	-				
N employed in hhold	05	06				
Subjective social status	09	09				
Age	-13	-15				
Education	-	-				
Gender: female	-12	-11				
SOCIAL INTEGRATION						
Communist link	-08		-09			
Church-goer	-07		-10			
Villager	-		-			
Belongs to organization	-		-			
Trusts most people	05		05			
Uses friends for info.	-		-			
Opinion leader	-		-			
Relies on government help	-		-			
Can control own life	-		06			
GENERIC SOCIAL CAPITAL						
Market nexus	-			07		
Informal networks	-			-		
Anti-modern networks	-			10		
SOCIAL EXCLUSION	-				-10	
SECTOR-SPECIFIC						
Exercise: by myself (if at all)	-					-
Exercise: with friends, family	-					-
Smoking history	-05					06
Someone rely on if ill	08					13
Pays/connections to see doctor	-06					-
% Variance explained: R ²	8.3	6.2	2.1	1.3	1.0	2.1

Source: New Russia Barometer Social Capital Survey, March 6 – April 13, 1998. Nationwide representative sample by VCIOM: 1,904 respondents. Full details of independent variables in Appendix A

